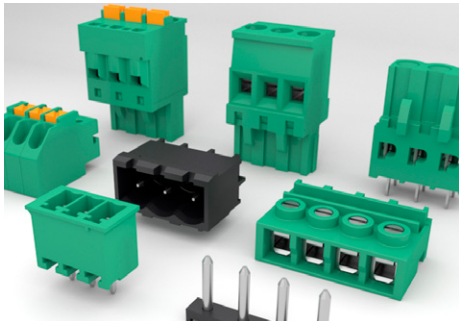
Quality - Environment
Health And Safety

Green Electronics

# Terminal blocks & Plurima®

# Connectors

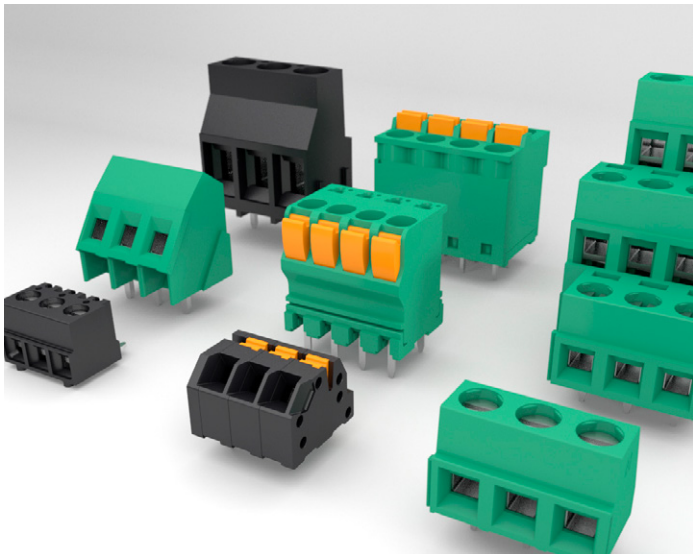
# Accessories

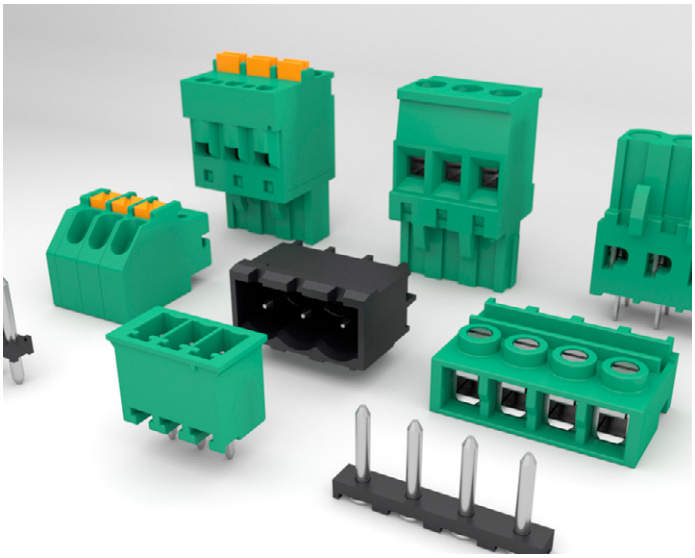


## MIIS® Catalogue

ELECTRONIC CONNECTORS
by the law

ELECTRONIC CONNECTORS
by the law





# Terminal blocks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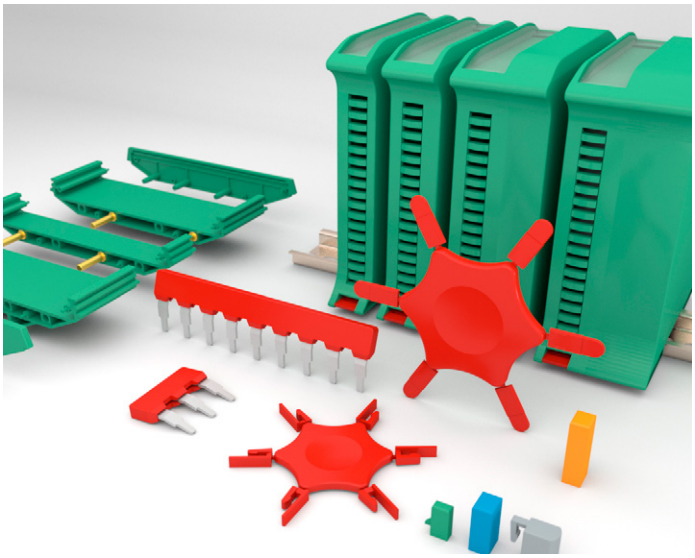
WVC25A-E S250619

**SAURO** was founded in Padua, **Italy in 1984**. We design and manufacture both our high quality PCB **terminal blocks and connectors** and the machines and automated systems which manufacture them.

**100%** engineered and manufactured in **ITALY**



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## Fields of application

- **Charging station**
- **Green Energy**
- **Safety and Security**
- **Industry**
- **HVACR**
- **Factory Test and Measurement**
- **Process Automation and Utility Management**
- **Building Technology**
- **Control Devices**
- **Lighting**
- **Oil and Gas**
- **Medical**
- **Power Electronics**
- **Home Automation & Domotics compliant to EN 60335-1**
- **Wireless Connection Devices**

# Connect with confidence, we take care of the rest

ISO 9001

ISO 14001

ISO 45001

RoHS COMPLIANT

REACH

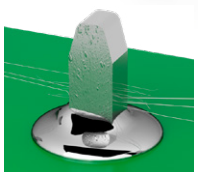
Conflict Minerals Free

## By the law

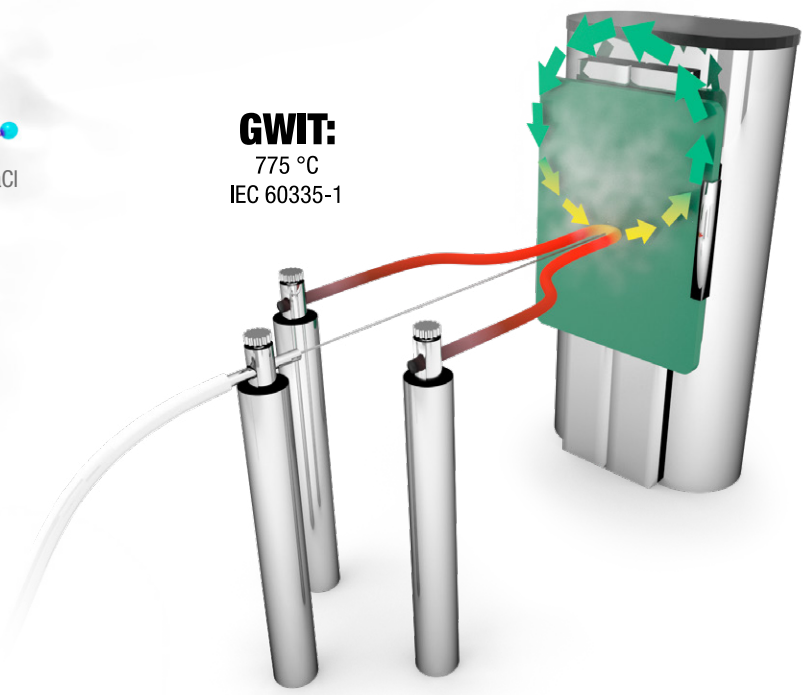
SAURO has always demonstrated the highest respect for human health and safety and for the environment by obtaining ISO 9001, 14001 and 45001 certification and with compliance to the REACH regulation and RoHS directive. Sauro embraces the fight against violence, human rights violations and environmental degradation, which is why we only source from suppliers who can guarantee that they are Conflict Mineral Free. Moreover, having obtained the most prestigious international agency approvals (UL, CSA, VDE, IMQ) confirms compliance with high quality standards.

## Strategy

All production, from individual components to finished products is done at the headquarters in Padua, Italy. Machines, assembly lines and molds are all designed and built in-house. SAURO has always provided products that are fully tested on the production line allowing the customer a guarantee of zero functional defects.



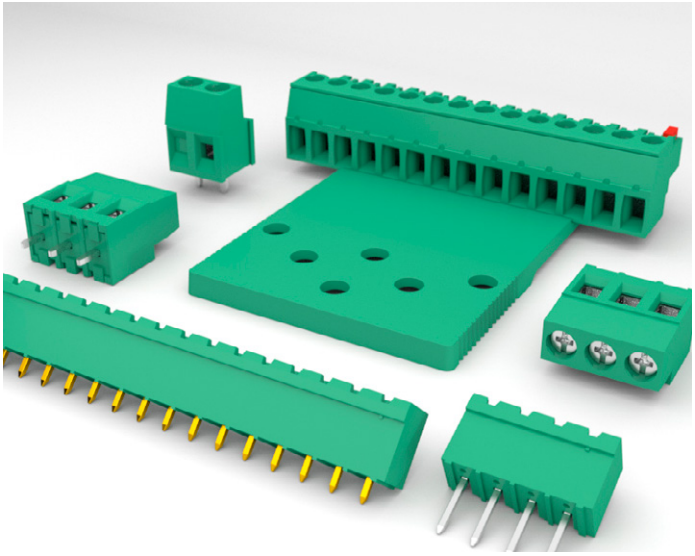
**NO** Tin Whiskers Phenomenon

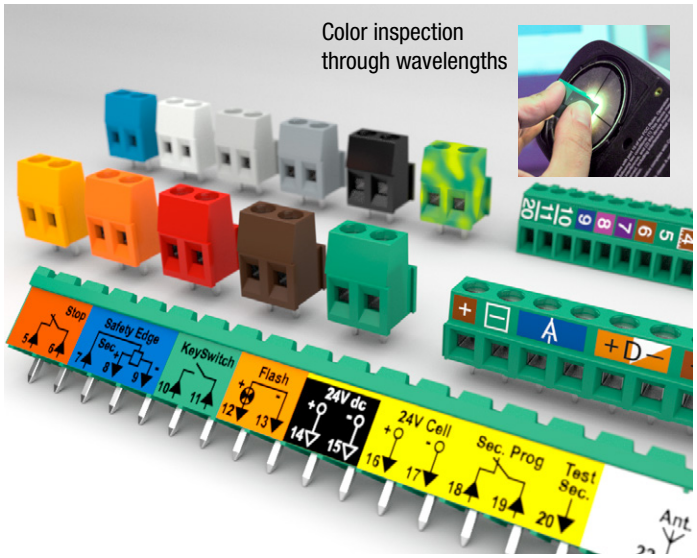



## Choice of materials

The high quality of SAURO products is guaranteed by the attentive choice of materials and the continuous research and development with raw material suppliers of innovative and better performing materials. The Insulating material is phosphorus, dioxins, halogen and antimony trioxide free and it is V0 class self-extinguishing according to UL94 certification. It is also GWIT (Glow Wire Ignition Temperature) classified at 775°C and therefore suitable for use in domestic appliances subject to European Standard EN 60335-1. All products are suitable for use in harsh environments and operating conditions since metallic components are made exclusively in special copper alloys. In addition, products with spring clamping technology can be used in environments where ammonia is present ($NH_3$) thanks to the use of stainless steel. Characteristically the properties of SAURO products remain unchanged in time maintaining the maximum safety and reliability.

# Smart and customer-specific solutions



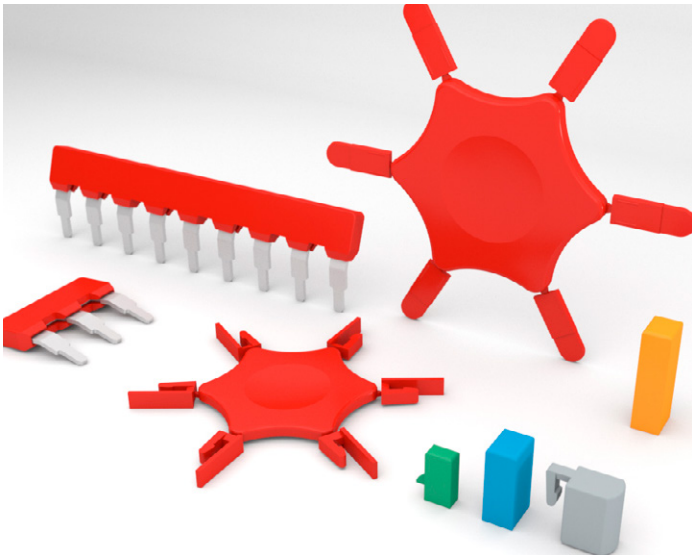



## Design-in

Due to the flexibility of our molding tools and SAURO's philosophy of being oriented towards customer needs, the insulating housings and metallic components can be designed and manufactured according to the customer required specification.
Examples include: non-fundamental geometric changes, closed product base, closed wire entry, addition of cable clip, customized pin length, special plating, various screw head types and more.

## Colors & Marking

The standard color of traditional products (manual or wave soldering) is green, and for STH products (for high temperature reflow soldering) is black. Different colors are available upon request. SAURO offers pad printing using a bi-component ink, obtaining characters with the highest possible readability that are also indelible and scratch resistant.



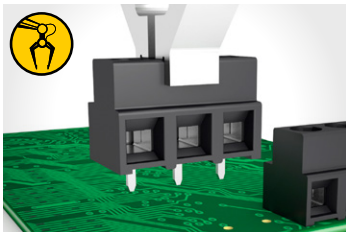
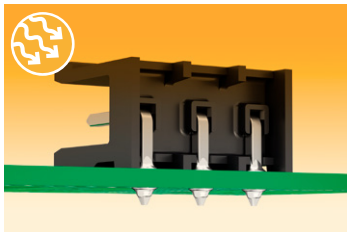
## Accessories

Various accessories are offered separately or already mounted to the SAURO product. Examples include coding clips and splines, bridges for short circuits and occluders. Thanks to modular molds of the insulating housing, the coding clips and splines can be replaced by integrated coding of the insulating body, and pole closures can be done by molding instead of loosely inserted occluders.

## Packaging solutions

All products can be supplied according to customer requirements or to the assembly process on the PCB. Packaging in kits, for example, allows for simplified product handling, shipping, storage and assembly, as well as reduced risk of error. Moreover, depending on the PCB assembly requirement, products can be supplied in aligned tray and tube packaging (ideal for semi-automated assembly) or in tape on reel and cell tray (ideal for automated assembly).

# From standard product to STH: our evolution and its

| | Materials | PCB assembly | Soldering process |
|---|---|---|---|
| **STANDARD** | Traditional polyamide PA6.6 | Manual assembly process | Wave and manual soldering |
| **STH** | 30% glass fibre reinforced and MSL1 (Moisture Sensitivity Level 1) rated polyamide: no moisture absorption |  Automated assembly process using gripper or vacuum system |  Reflow soldering |

### Benefits

Products withstand the high temperatures of reflow ovens and do not require any moisture barrier bag or drying process before going in to the oven.

### Benefits

For high volume usage the automated assembly process is the most reliable, convenient and efficient choice.

### Benefits

**STH** products can be soldered in the reflow oven together with all other **SMD** products eliminating the additional wave soldering process and all the intermediate storages.

# advantages!

| Packaging | Furthermore | Future | |
|---|---|---|---|

Bulk

## What we need?

- Intermediate storage
- Manual assembly
- Wave or manual soldering process

**STH**

Through hole reflow technology

Tape on reel

## We do not need!

- PAD
- Intermediate storage
- Manual assembly
- Moisture barrier bag or drying process
- Wave soldering process

**SMT**

Surface Mount Technology

### Benefits

Tape on reel packaging is the best method of product placement for automated assembly on the PCB.

Factory's work space and time reduced by

**70%**

Respect to STANDARD

### Benefits

SAURO **SMD** products have been designed to offer small and smart solutions when the dominant requirement is compactness and miniaturization.

Factory's work space and time reduced by

**75%**

Respect to STANDARD

Clamp technology

Spring technology

drawings are in 1.1 scale

# Terminal blocks


| | |
|---|---|
| MSD | 10 |
| MBBD-MBBH | 11 |
| MTS | 12 |
| MTB-MTBH-MTBD | 13-14 |
| MSB-MSBH-MSBD | 15-16-17 |
| MSG-MSGH | 18-19 |
| MSM-MSMH | 20-21 |
| MSMH N. | 22 |
| MSS-MSSH | 23-24 |
| MSQ-MSQH | 25-26 |
| MSP-MSPH | 27 |
| MPS-MPSH | 28 |
| MPM | 29 |
| MPL | 31 |
| MPP-MPPH | 33 |
| MMTH | 34 |
| MCB-MCBH-MCBD | 35 |
| MCCH | 36 |
| MCM | 37 |
| MCMH | 38 |
| MCQ-MCQH | 39-40 |
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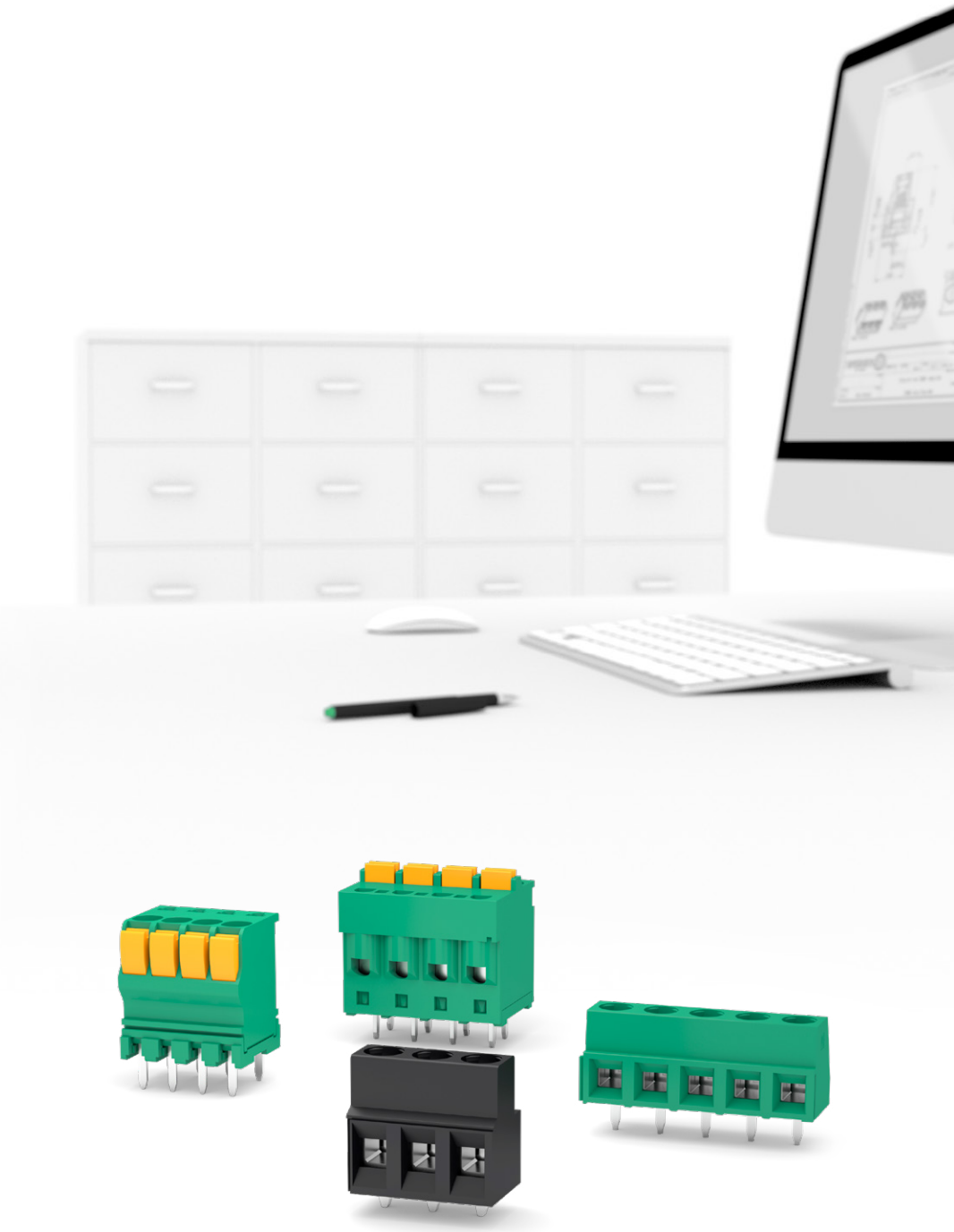
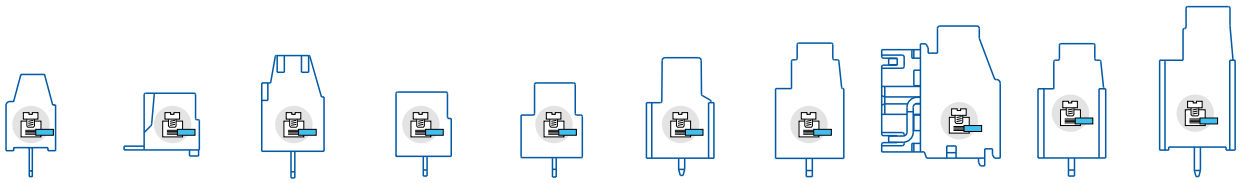
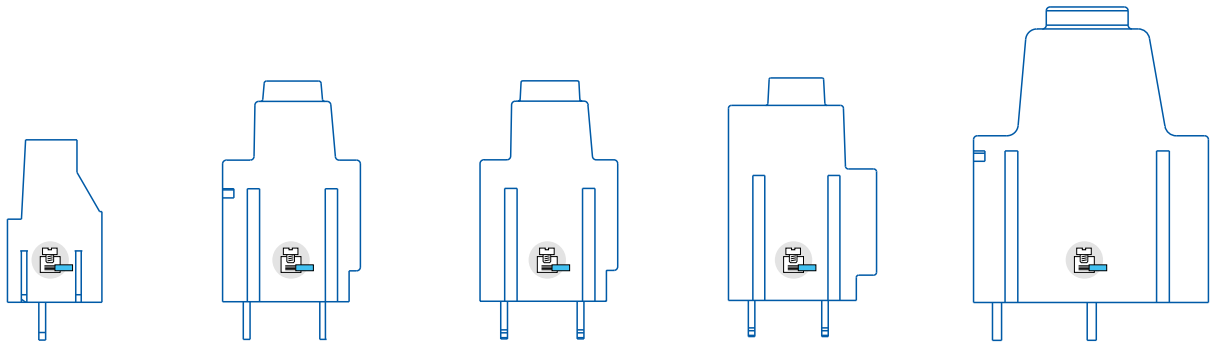


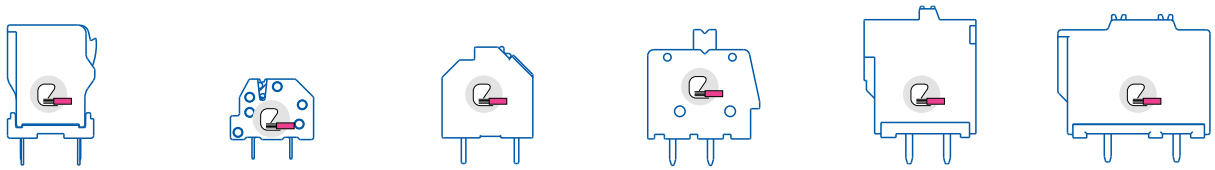
Traditional for wave soldering | **STH** for reflow soldering | Suitable for reflow soldering | Pick and place system | **MSL1** | For resined PCBs



| Serie | | | MSD | MBBD-MBBH | MTS | MTB-MTBH-MTBD | MSB-MSBH-MSBD | MSG-MSGH | MSM-MSMH | MSMH N. | MSS-MSSH | MSQ-MSQH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Height | | | 10 mm .394 in | 7.5 mm .295 in | 12.6 mm .496 in | 8.5 mm .335 in | 10 mm .394 in | 13.5 mm .531 in | 15.2 mm .598 in | 17.05 mm .671 in | 15.2 mm .598 in | 19 mm .748 in |
| Pitch mm/in. | 2.54 | .100 | x | | | | | | | | | |
| | 3.5 | .138 | | | x | x | | | | | | |
| | 3.81 | .150 | | x | x | x | | | | | | |
| | 5 | .197 | | | | | x | x | x | x | x | x |
| | 5.08 | .200 | • | | | | x | x | x | | x | x |
| | 6.35 | .250 | | | | | | | | | | |
| | 7 | .276 | | | • | • | | | | | | |
| | 7.5 | .295 | | | | | | • | • | | • | • |
| | 7.62 | .300 | | • | • | • | | • | • | | • | • |
| | 10 | .394 | | | | | • | • | • | | • | • |
| | 10.16 | .400 | | | | | • | • | • | | • | • |
| | 15 | .591 | | | | | | | | | | • |
| Wire section mm² | | | 0.05÷1 | 0.05÷0.75 | 0.05÷1.5 | 0.05÷1.5 | 0.05÷1.5 | 0.05÷2.5 | 0.05÷2.5 | 0.05÷2.5 | 0.05÷2.5 | 0.05÷4 |
| Wire section AWG | | | 30÷16 | 28÷18 | 30÷14 | 28÷16 | 30÷16 | 30÷14 | 30÷12 | 30÷12 | 30÷12 | 30÷12 |
| Rated current | | | 12 A | 9 A | 17.5 A | 17.5 A | 17.5 A | 24 A | 24 A | 24 A | 24 A | 32 A |
| Rated voltage | | | 150 V (x) 300 V (•) | 300 V (x) 600 V (•) | 300 V (x) 750 V (•) | 300 V (x) 750 V (•) | 300 V (x) 750 V (•) | 300 V (x) 750 V (•) | 300 V (x) 750 V (•) | 300 V (x) | 300 V (x) 750 V (•) | 300 V (x) 750 V (•) |
| Soldering type | | | | | | | | | | | | |



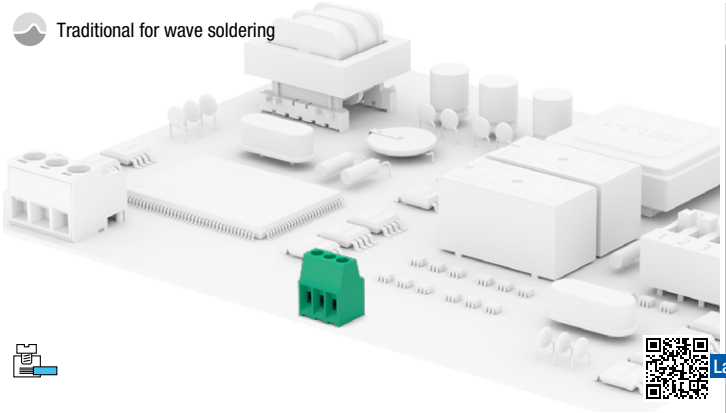
| Serie | | | MSP-MSPH | MPS-MPSH | MPM | MPL | MPP-MPPH |
|---|---|---|---|---|---|---|---|
| Height | | | 21.5 mm .846 in | 29.3 mm 1.154 in | 29.3 mm 1.154 in | 30.08 mm 1.213 in | 39 mm 1.535 in |
| Pitch mm/in. | 6.35 | .250 | x | | | | |
| | 7.62 | .300 | x | | | | |
| | 9.52 | .375 | • | | | | |
| | 10 | .394 | | | | | |
| | 10.16 | .400 | | • | • | | |
| | 12.7 | .500 | □ | | | • | |
| | 15 | .591 | | | | | • |
| | 15.24 | .600 | | | | • | |
| Wire section mm² | | | 0.05÷6 | 0.5÷16 | 0.5÷16 | 0.5÷25 | 0.5÷35 |
| Wire section AWG | | | 30÷10 | 20÷6 | 16÷6 | 20÷4 | 20÷1 |
| Rated current | | | 41 A | 76 A | 76 A | 101 A | 135 A |
| Rated voltage | | | 450 V (x) 750 V (•) 600 V (□) | 1000 V (•) | 1000 V (•) | 1000 V (•) | 1000 V (•) |
| Soldering type | | | | | | | |



| Serie | | | MMTH | MCB-MCBH-MCBD | MCCH | MCM-MCMH | MCQ-MCQH | MCQ D.-MCQH D. |
|---|---|---|---|---|---|---|---|---|
| Height | | | 15 mm .590 in | 8 mm .315 in | 12 mm .472 in | 14.45 mm .569 in | 17.9 mm .705 in | 17.3 mm .681 in |
| Pitch mm/in. | 3.5 | .138 | x | x | | | | |
| | 3.81 | .150 | x | | x | | | |
| | 5 | .197 | | x | | x | x | x |
| | 5.08 | .200 | | | x | x | x | |
| | 7 | .276 | • | • | | | | |
| | 7.5 | .295 | | | | • | | |
| | 7.62 | .300 | • | | • | • | | |
| | 9.52 | .375 | | | | | | |
| | 10 | .394 | | □ | | • | • | • |
| | 10.16 | .400 | | | □ | • | • | |
| Wire section mm² | | | 0.2÷1.5 | 0.2÷1.5 | 0.2÷1.5 | 0.2÷2.5 | 0.2÷2.5 | 0.2÷2.5 |
| Wire section AWG | | | 30÷16 | 24÷16 | 30÷16 | 30÷12 | 30÷12 | 30÷12 |
| Rated current | | | 10 A | 17.5 A | 13.5 A | 16 A | 16 A | 16 A |
| Rated voltage | | | 300 V (x) 750 V (•) | 300 V (x) 630 V (•) 1000 V (□) | 300 V (x) 630 V (•) 1000 V (□) | 300 V (x) 750 V (•) | 300 V (x) 750 V (•) | 300 V (x) 750 V (•) |
| Soldering type | | | | | | | | |

# MSD

Traditional for wave soldering



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | green |
| **Pitches:** | imperial 2.54 mm, 5.08 mm (.100 in, .200 in) |
| **Screw dimension:** | M1.6 |
| **Recommended/highest tightening torque:** | 0.1/0.15 Nm (0.88/1.33 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.1 mm (.043 in) |
| **Stripping length:** | 4 ÷ 5 mm (.16 ÷ .197 in) |
| **Operating temp. range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | $>10^9$ Ω (500V DC) |

## Certifications

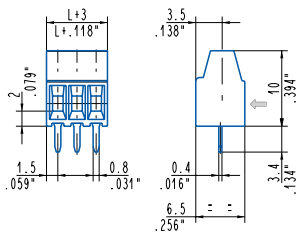
**UL (n. E167473)**
150 V - 10 A - 30÷16 AWG - for 2.54 mm pitch
300 V - 10 A - 30÷16 AWG - for 5.08 mm pitch

**VDE (n. 40022747)**
125 V - 6 A - 0.5 $mm^2$ for 2.54 mm pitch
250 V - 6 A - 0.5 $mm^2$ for 5.08 mm pitch

**IMQ (n. CA02.00145)**
130 V - 12 A - 1 $mm^2$ solid (6 A - 0.5 $mm^2$ stranded) for 2.54 mm pitch
250 V - 12 A - 1 $mm^2$ solid (6 A - 0.5 $mm^2$ stranded) for 5.08 mm pitch

**CSA (n. LR102896)**
150 V - 10 A - 30÷16 AWG for 2.54 mm pitch
300 V - 10 A - 30÷16 AWG for 5.08 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.




**0°**

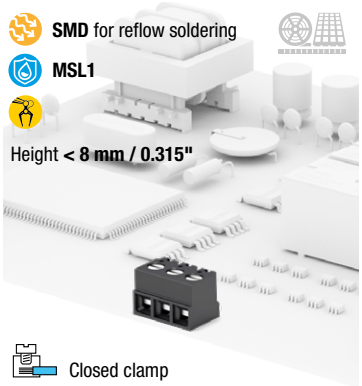
**MSD__004** 2 ÷ 12 poles, 2.54 mm / .100" pitch
**MSD__005** 2 ÷ 6 poles, 5.08 mm / .200" pitch

# MBBD SMD TECHNOLOGY

**SMD** for reflow soldering

**MSL1**

Height **< 8 mm / 0.315"**



Closed clamp

# MBBH

**STH** for reflow soldering

**MSL1**

Height **< 8 mm / 0.315"**

Closed clamp

Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | black |
| **Pitches:** | imperial 3.81 mm, 7.62 mm (.150 in, .300 in) |
| **Screw dimension:** | M2 |
| **Recommended/highest tightening torque:** | 0.2/0.25 Nm (1.77/2.21 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter for peg:** | 1.4 mm (.055 in) |
| **PCB hole diameter for pin:** | min. 1.3 mm (.051 in) |
| **Stripping length:** | 5÷6 mm (.197 in) |
| **Operating temp. range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

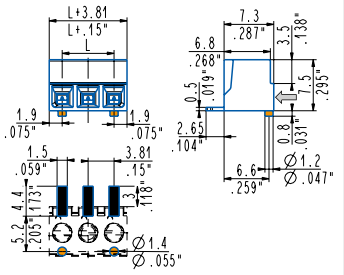
**UL (n. E167473)**
300 V - 7 A - 28÷18 AWG

## Data according to

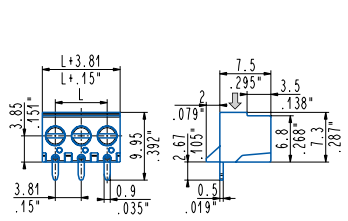
**IEC EN 60947-7-4**
160 V - 9 A - 0.75 mm² for 3.81 mm pitch
600 V - 9 A - 0.75 mm² 7.62 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

**SMD technology**

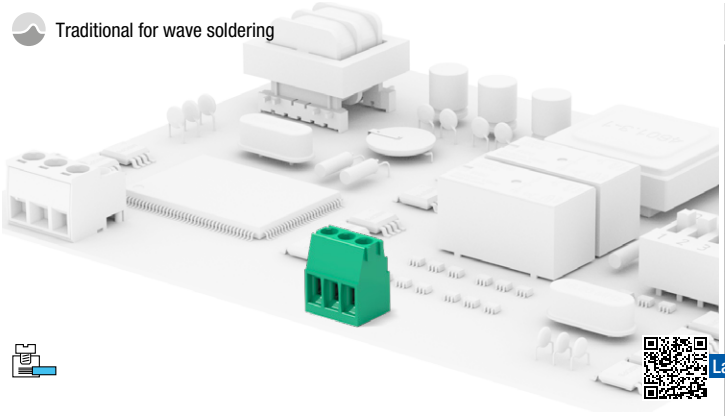



**0°, fixing and positioning pegs, side stackable**
**MBBD__0AT-0NC0P** 2÷12 poles, 3.81 mm .150" pitch
**MBBD__0A7-0NC0P** 2÷6 poles, 7.62 mm .300" pitch




**90°, side stackable**
**MBBH__9AT-0NC** 2÷12 poles, 3.81 mm/.150" pitch
**MBBH__9A7-0NC** 2÷6 poles, 7.62 mm/.300" pitch

Traditional for wave soldering



Last release

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | green |
| **Pitches:** | metric 3.5 mm, 7 mm (.138 in, .275 in)<br>imperial 3.81 mm, 7.62 mm (.150 in, .300 in) |
| **Screw dimension:** | M2 |
| **Recommended/highest tightening torque:** | 0.25 Nm (2.21 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.1 mm (.043 in) |
| **Stripping length:** | 5 ÷ 6 mm (.197 ÷ .24 in) |
| **Operating temp. range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**
300 V - 12 A - 30÷14 AWG

**VDE (n. 40021759)**
130 V - 12 A - 1 mm² for 3.5 mm and 3.81 mm pitch
450 V - 12 A - 1 mm² for 7 mm and 7.62 mm pitch

**IMQ (n. CA02.00146)**
130 V - 17.5 A - 1.5 mm² solid (12 A - 1 mm² stranded) - for 3.5 mm and 3.81 mm pitch
750 V - 17.5 A - 1.5 mm² solid (12 A - 1 mm² stranded) - for 7 mm and 7.62 mm pitch

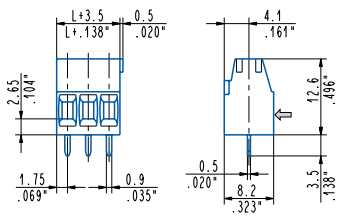
**CSA (n. LR102896)**
300 V - 12 A - 30÷14 AWG

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

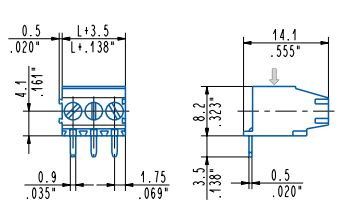
A higher number of poles is obtained by combining together **modular** parts.

Your drawings and notes

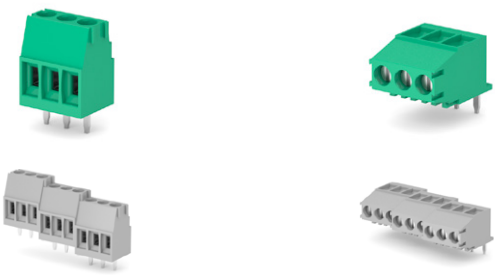
In order to protect terminals during transport, the product in box is packaged in row trays.



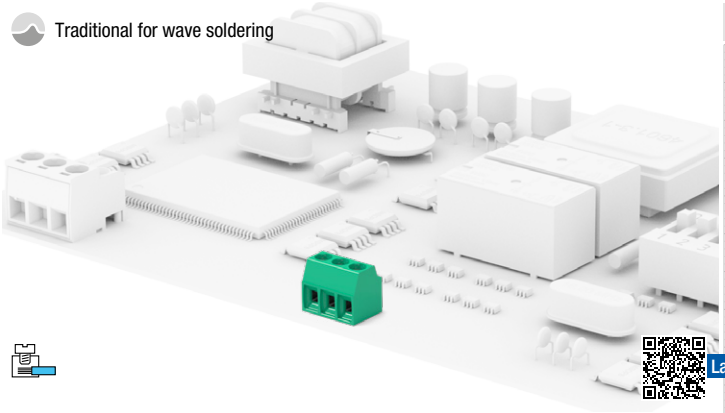

**0°, modular**
**MTS__008** 2 ÷ 25 poles, 3.5 mm / .138" pitch
**MTS__009** 1 ÷ 13 poles, 7 mm / .276" pitch
**MTS__00T** 2 ÷ 25 poles, 3.81 mm / .150" pitch
**MTS__007** 1 ÷ 13 poles, 7.62 mm / .300" pitch




**90°, modular**
**MTS__098** 2 ÷ 25 poles, 3.5 mm / .138" pitch
**MTS__099** 1 ÷ 13 poles, 7 mm / .276" pitch
**MTS__09T** 2 ÷ 25 poles, 3.81 mm / .150" pitch
**MTS__097** 1 ÷ 13 poles, 7.62 mm / .300" pitch



Traditional for wave soldering



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | green |
| **Pitches:** | metric 3.5 mm, 7 mm (.138 in, .275 in)<br>imperial 3.81 mm, 7.62 mm (.150 in, .300 in) |
| **Screw dimension:** | M2 |
| **Recommended/highest tightening torque:** | 0.2/0.25 Nm (1.77/2.21 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.2 mm (.047 in) |
| **Stripping length:** | 5÷6 mm (.197 in) |
| **Operating temp. range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**
300 V - 12 A factory wiring (10 A field wiring) - 28÷16 AWG

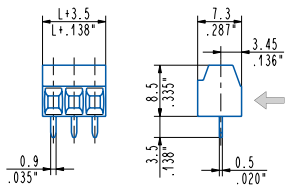
**VDE (n. 40021761)**
130 V - 12 A - 1 mm² for 3.5 mm and 3.81 mm pitch
450 V - 12 A - 1 mm² for 7 mm and 7.62 mm pitch

**IMQ (n. CA02.00900)**
130 V - 17.5 A - 1.5 mm² solid (12 A - 1 mm² stranded) for 3.5 mm and 3.81 mm pitch
750 V - 17.5 A - 1.5 mm² solid (12 A - 1 mm² stranded) for 7 mm and 7.62 mm pitch

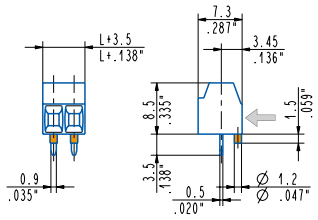
**CSA (n. LR102896)**
300 V - 12 A - 30÷16 AWG

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

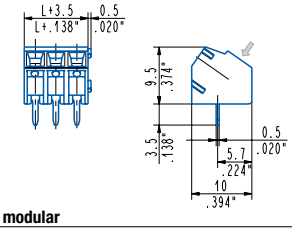
A higher number of poles is obtained by combining together **modular** parts.



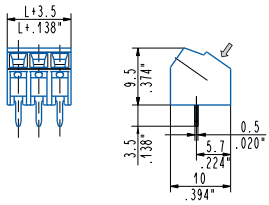

**0°, side stackable**
**MTB__008** 2 ÷ 25 poles, 3.5 mm / .138" pitch
**MTB__009** 2 ÷ 13 poles, 7 mm / .276" pitch
**MTB__00T** 2 ÷ 25 poles, 3.81 mm / .150" pitch
**MTB__007** 2 ÷ 13 poles, 7.62 mm / .300" pitch



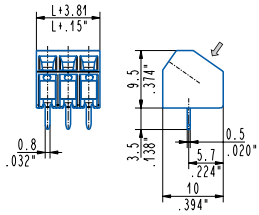

**0°, side stackable VDE pegs**
**MTB02008-0000P** 2 poles, 3.5 mm / .138" pitch
**MTB0200T-0000P** 2 poles, 3.81 mm / .150" pitch




**55°, modular**
**MTB__048** 2 ÷ 25 poles, 3.5 mm / .138" pitch
**MTB__049** 1 ÷ 13 poles, 7 mm / .276" pitch




**55°, side stackable**
**MTB__068** 2 ÷25 poles, 3.5 mm / .138" pitch
**MTB__069** 2 ÷ 13 poles, 7 mm / .276" pitch




**55°, side stackable**
**MTB__06T** 2 ÷ 12 poles, 3.81 mm / .150" pitch
**MTB__067** 2 ÷ 6 poles, 7.62 mm / .300" pitch

L = pitch x (poles - 1)

The drawing refers to only a pitch, please see our complete range of products by visiting our website on **www.sauro.net** or refering to your representative Sales Manager

# MTBH

**STH** for reflow soldering

**MSL1**

# MTBD SMD TECHNOLOGY

**SMD** for reflow soldering

**MSL1**

Closed clamp

Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | black |
| **Pitches:** | metric 3.5 mm, 7 mm (.138 in, .275 in)<br>imperial 3.81 mm, 7.62 mm (.150 in, .300 in) |
| **Screw dimension:** | M2 |
| **Recommended/highest tightening torque:** | 0.2/0.25 Nm (1.77/2.21 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter for pin:** | min. 1.3 mm (.051 in) |
| **PCB hole diameter for peg:** | 1.4 mm (.055 in) |
| **Stripping length:** | 5÷6 mm (.197 in) |
| **Operating temp. range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | $>10^9$ Ω (500V DC) |

## Certifications

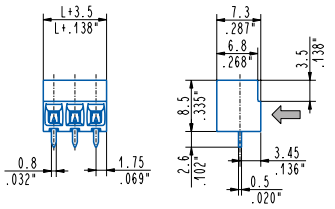
**UL (n. E167473)**
300 V - 12 A factory wiring - 10 A field wiring - 28÷16 AWG

## Data according to

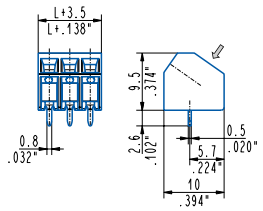
**IEC EN 60947-7-4**
130 V - 17.5 A - 1.5 mm² solid, (12 A - 1 mm² stranded) for 3.5 mm and 3.81 mm pitch
750 V - 17.5 A - 1.5 mm² solid, (12 A - 1 mm² stranded) for 7 mm and 7.62 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

A higher number of poles is obtained by combining together **modular** parts.

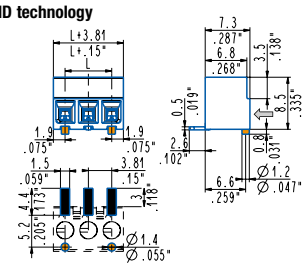



**0°, side stackable**
**MTBH__008-0N** 2÷12 poles, 3.5 mm / .138" pitch
**MTBH__009-0N** 2÷6 poles, 7 mm / .276" pitch
**MTBH__00T-0N** 2÷12 poles, 3.81 mm / .150" pitch
**MTBH__007-0N** 2÷6 poles, 7.62 mm / .300" pitch




**55°, side stackable**
**MTBH__068-0N** 2÷12 poles, 3.5 mm / .138" pitch
**MTBH__069-0N** 2÷6 poles, 7 mm / .276" pitch
**MTBH__06T-0N** 2÷12 poles, 3.81 mm / .150" pitch
**MTBH__067-0N** 2÷6 poles, 7.62 mm / .300" pitch

**SMD technology**

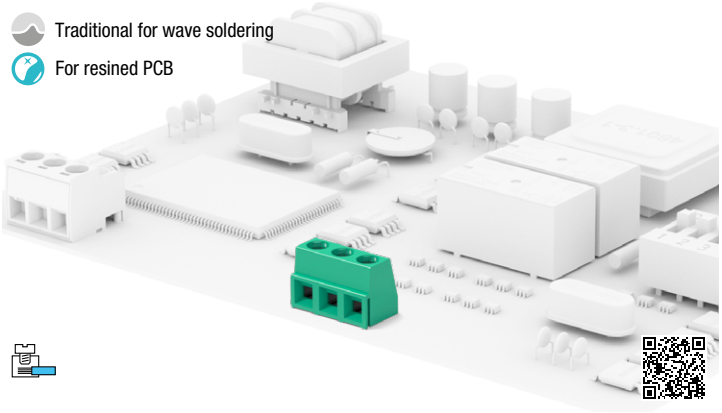



**0°, fixing and positioning pegs, side stackable**
**MTBD__0A8-0NCOP** 2÷12 poles, 3.5 mm .138" pitch
**MTBD__0A9-0NCOP** 2÷6 poles, 7 mm .276" pitch
**MTBD__0AT-0NCOP** 2÷12 poles, 3.81 mm .150" pitch
**MTBD__0A7-0NCOP** 2÷6 poles, 7.62 mm .300" pitch

# MSB

Traditional for wave soldering

For resined PCB



## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 10 mm (.197 in, .394 in)<br>imperial 5.08 mm, 10.16 mm (.200 in, .400 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5/0.6 Nm (4.42/5.31 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.3 mm (.051 in) / 1.4 mm (.055 in) for "T" version |
| **Stripping length** | 5 ÷ 6 mm (.197 ÷ .24 in) |
| **Operating temperature range** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)** *factory wiring - **field wiring
300 V - 13.5 A (*), 10 A (**) - 30÷16 AWG - for 5 mm, 5.08 mm pitch
600 V - 13.5 A (*), 10 A (**) - 30÷16 AWG - for 10 mm and 10.16 mm pitch

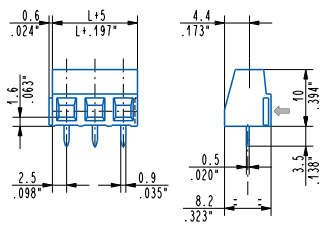
**VDE (n. 40022744)**
250 V - 13.5 A - 1 mm² for 5 mm and 5.08 mm pitch
750 V - 13.5 A - 1 mm² for 10 mm and 10.16 mm pitch

**IMQ (n. EC318)**
250 V - 17.5 A - 1.5 mm² solid (13.5 A - 1 mm² stranded) for 5 mm and 5.08 mm pitch
750 V - 17.5 A - 1.5 mm² solid (13.5 A - 1 mm² stranded) for 10 mm and 10.16 mm pitch

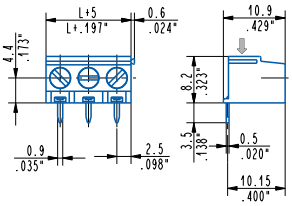
**CSA (n. LR102896)**
300 V - 13.5 A - 30÷15 AWG for 5 mm, 5.08 mm pitch
600 V - 13.5 A - 30÷15 AWG for 10 mm and 10.16 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

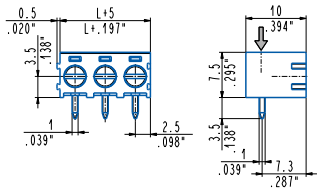
A higher number of poles is obtained by combining together **modular** parts.



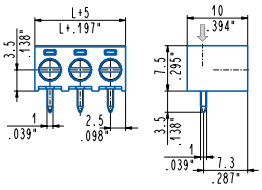
**0°, modular**
**MSB__001** 2 ÷ 25 poles, 5 mm / .197" pitch
**MSB__002** 1 ÷ 13 poles, 10 mm / .394" pitch
**MSB__005** 2 ÷ 25 poles, 5.08 mm / .200" pitch
**MSB__006** 1 ÷ 13 poles, 10.16 mm / .400" pitch



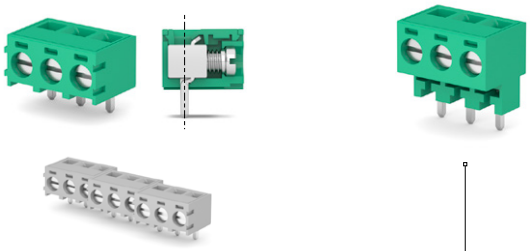
**90°, modular**
**MSB__091** 2 ÷ 25 poles, 5 mm / .197" pitch
**MSB__092** 1 ÷ 13 poles, 10 mm / .394" pitch
**MSB__095** 2 ÷ 25 poles, 5.08 mm / .200" pitch
**MSB__096** 1 ÷ 13 poles, 10.16 mm / .400" pitch

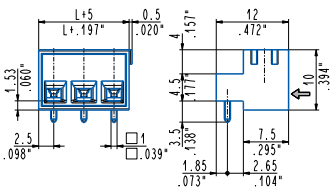


**90° terminal aligned with cable entry, modular**
**MSB__T01** 2 ÷ 25 poles, 5 mm / .197" pitch
**MSB__T02** 1 ÷ 13 poles, 10 mm / .394" pitch
**MSB__T05** 2 ÷ 8 poles, 5.08 mm / .200" pitch
**MSB__T06** 1 ÷ 4 poles, 10.16 mm / .400" pitch

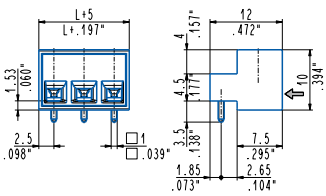


**90° terminal aligned with cable entry, side stackable**
**MSB__TA1** 2 ÷ 25 poles, 5 mm / .197" pitch
**MSB__TA2** 2 ÷ 13 poles, 10 mm / .394" pitch
**MSB__TA5** 2 ÷ 8 poles, 5.08 mm / .200" pitch
**MSB__TA6** 2 ÷ 4 poles, 10.16 mm / .400" pitch

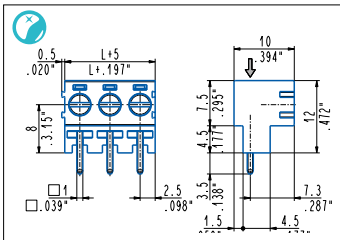




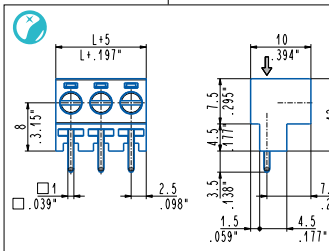
**0° "S" version, modular**
**MSB__SM1** 2 ÷ 3 poles, 5 mm / .197" pitch
**MSB__SM2** 1 ÷ 2 poles, 10 mm / .394" pitch



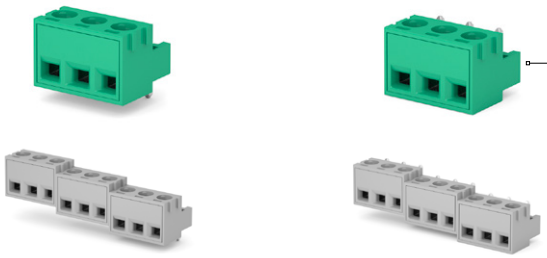
**0° "S" version, side stackable**
**MSB__SA1** 2 ÷ 3 poles, 5 mm / .197" pitch
**MSB__SA2** 2 poles, 10 mm / .394" pitch

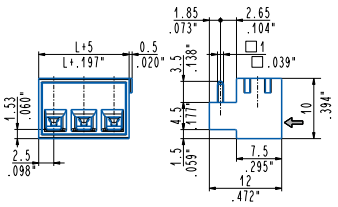


**90° "Y" version, modular**
**MSB__YM1** 2 ÷ 3 poles, 5 mm / .197" pitch
**MSB__YM2** 1 ÷ 2 poles, 10 mm / .394" pitch

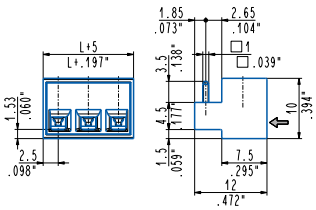


**90° "Y" version, side stackable**
**MSB__YA1** 2 ÷ 3 poles, 5 mm / .197" pitch
**MSB__YA2** 2 poles, 10 mm / .394" pitch





**0° "U" version, modular**
**MSB__UM1** 2 ÷ 3 poles, 5 mm / .197" pitch
**MSB__UM2** 1 ÷ 2 poles, 10 mm / .394" pitch



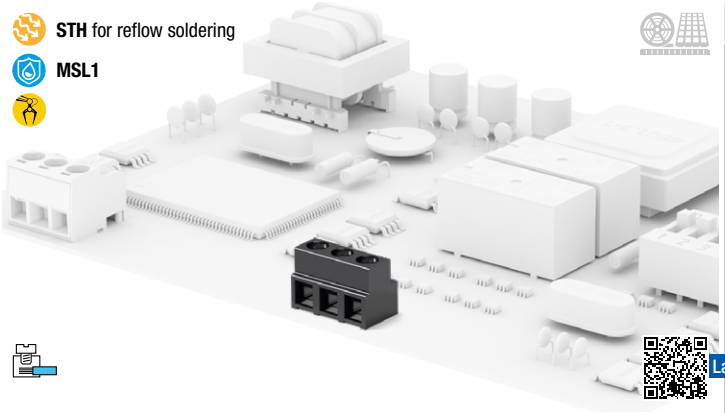
**0° "U" version, side stackable**
**MSB__UA1** 2 ÷ 3 poles, 5 mm / .197" pitch
**MSB__UA2** 2 poles, 10 mm / .394" pitch

L = pitch x (poles - 1)

The drawing refers to only a pitch, please see our complete range of products by visiting our website on **www.sauro.net** or refering to your representative Sales Manager

**STH** for reflow soldering

**MSL1**



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | black |
| **Pitches:** | metric 5 mm, 10 mm (.197 in, .394 in)<br>imperial 5.08 mm, 10.16 mm (.200 in, .400 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5/0.6 Nm (4.42/5.31 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | 1.3 mm (.051 in) |
| **Stripping length** | 5 ÷ 6 mm (.197 ÷ .24 in) |
| **Operating temperature range** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance** | >$10^9$ Ω (500V DC) |

## Certifications

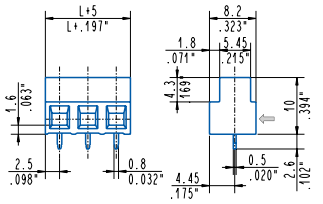
**UL (n. E167473)**
300 V - 13.5 A (*), 10 A (**) - 30÷16 AWG - for 5 mm, 5.08 mm pitch
600 V - 13.5 A (*), 10 A (**) - 30÷16 AWG - for 10 mm and 10.16 mm pitch
*factory wiring - **field wiring

## Data according to

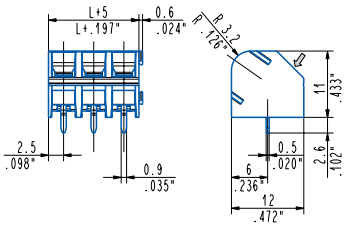
**IEC EN 60947-7-4**
250 V - 17.5 A - 1.5 mm² solid (13.5 A - 1 mm² stranded) for 5 mm and 5.08 mm pitch
750 V - 17.5 A - 1.5 mm² solid (13.5 A - 1 mm² stranded) for 10 mm and 10.16 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

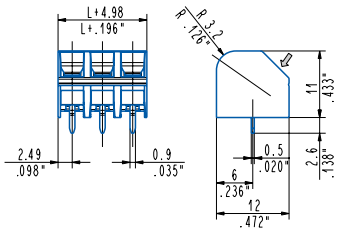
A higher number of poles is obtained by combining together **modular** parts.



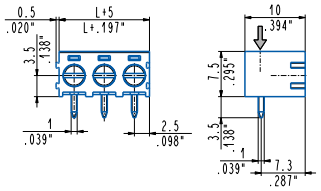
**0°, side stackable**
**MSBH__001-0N** 2 ÷ 12 poles, 5 mm .197" pitch
**MSBH__002-0N** 2 ÷ 6 poles, 10 mm .394" pitch
**MSBH__005-0N** 2 ÷ 5 poles, 5.08 mm/.200" pitch
**MSBH__006-0N** 2 ÷ 3 poles, 10.16 mm/.400" pitch



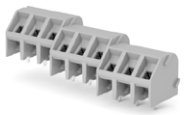
**55°, modular**
**MSBH__045-0N** 2÷16 poles, 5.08 mm / .200" pitch
**MSBH__046-0N** 1÷8 poles, 10.16 mm / .400" pitch

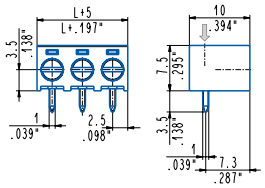


**55°, side stackable**
**MSBH__061-0N** 2÷5 poles, 5 mm / .197" pitch
**MSBH__062-0N** 2÷3 poles, 10 mm / .394" pitch
**MSBH__065-0N** 2÷16 poles, 5.08 mm / .200" pitch
**MSBH__066-0N** 2÷8 poles, 10.16 mm / .400" pitch



**90° terminal aligned with cable entry, modular**
**MSBH__T01-0N** 2÷25 poles, 5 mm / .197" pitch
**MSBH__T02-0N** 1÷13 poles, 10 mm / .394" pitch
**MSBH__T05-0N** 2÷8 poles, 5.08 mm / .200" pitch
**MSBH__T06-0N** 1÷4 poles, 10.16 mm / .400" pitch



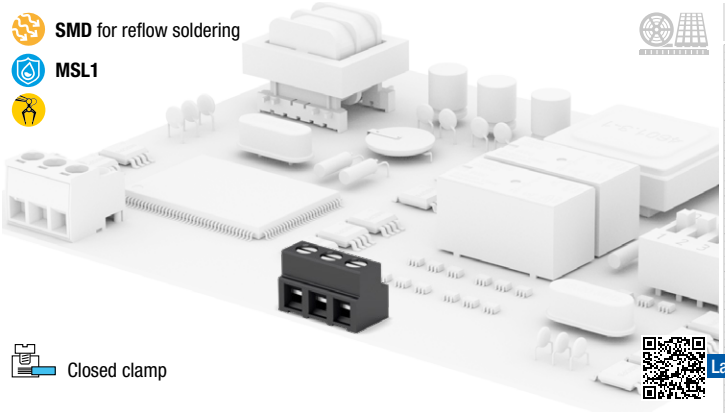


**90° terminal aligned with cable entry, side stackable**
**MSBH__TA1-0N** 2÷25 poles, 5 mm / .197" pitch
**MSBH__TA2-0N** 2÷13 poles, 10 mm / .394" pitch
**MSBH__TA5-0N** 2÷8 poles, 5.08 mm / .200" pitch
**MSBH__TA6-0N** 2÷4 poles, 10.16 mm / .400" pitch

# MSBD SMD TECHNOLOGY

**SMD** for reflow soldering

**MSL1**



Closed clamp

Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | black |
| **Pitches:** | metric 5 mm, 10 mm (.197 in, .394 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5/0.6 Nm (4.42/5.31 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter for peg:** | 1.4 mm (.055 in) |
| **Stripping length** | 5 ÷ 6 mm (.197 ÷ .24 in) |
| **Operating temp. range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance** | $>10^9$ Ω (500V DC) |

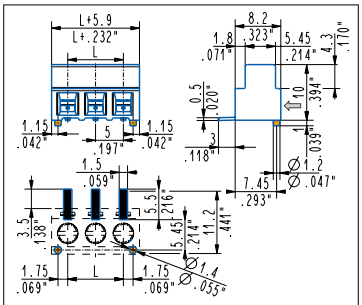
## Certifications

**UL (n. E167473)**
300 V - 13.5 A (*), 10 A (**) - 30÷16 AWG - for 5 mm pitch
600 V - 13.5 A (*), 10 A (**) - 30÷16 AWG - for 10 mm pitch
*factory wiring - **field wiring

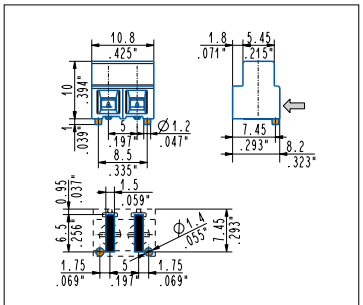
## Data according to

**IEC EN 60947-7-4**
250 V - 17.5 A - 1.5 mm² solid (13.5 A - 1 mm² stranded) for 5 mm pitch
750 V - 17.5 A - 1.5 mm² solid (13.5 A - 1 mm² stranded) for 10 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

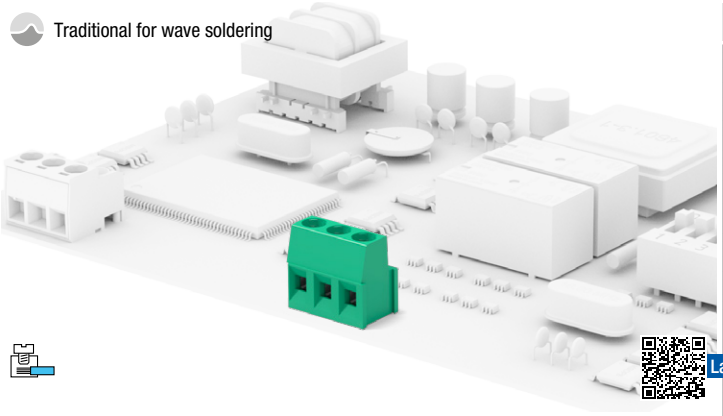


**0°, fixing and positioning pegs SMD technology**
**MSBD__LP1-0NC** 2÷12 poles, 5 mm / .197" pitch
**MSBD__LP2-0NC** 2÷6 poles, 10 mm / .394" pitch



**0°, fixing and positioning pegs SMD technology**
**MSBD02001-0NC** 2 poles, 5 mm / .197" pitch

Traditional for wave soldering



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 7.5 mm, 10 mm (.197 in, .295 in, .394 in)<br>imperial 5.08 mm, 7.62 mm, 10.16 mm (.200 in, .300 in, .400 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5/0.6 Nm (4.42/5.31 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.4 mm (.055 in) |
| **Stripping length:** | 5.5 ÷ 6.5 mm (.22 ÷ .26 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)** *factory wiring - **field wiring
300 V - 17.5 A (*), 15A (**) - 30÷14 AWG - for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
600 V - 17.5 A (*), 15A (**) - 30÷14 AWG - for 10 mm and 10.16 mm pitch

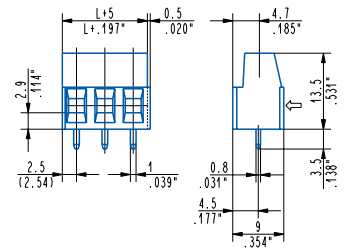
**VDE (n. 40022749)**
250 V - 17.5 A - 1.5 $mm^2$ for 5 mm and 5.08 mm pitch
750 V - 17.5 A - 1.5 $mm^2$ for 7.5 mm, 7.62 mm, 10 mm and 10.16 mm pitch

**IMQ (n. EI056)**
250 V - 24 A - 2.5 $mm^2$ solid (17.5 A - 1.5 $mm^2$ stranded) for 5 mm and 5.08 mm pitch
750 V - 24 A - 2.5 $mm^2$ solid (17.5 A - 1.5 $mm^2$ stranded) for 7.5 mm, 7.62 mm, 10 mm and 10.16 mm pitch

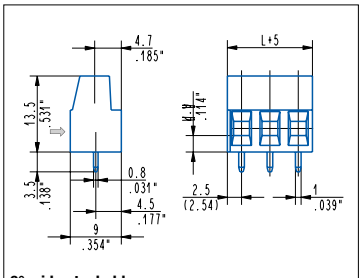
**CSA (n. LR102896)**
300 V - 20 A - 30÷12 AWG for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
600 V - 20 A - 30÷12 AWG for 10 mm and 10.16 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

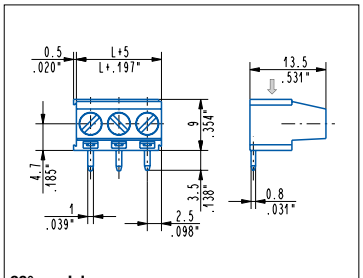
A higher number of poles is obtained by combining together **modular** parts.



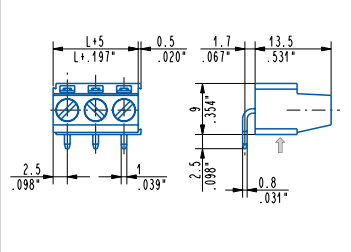
**0°, modular**
**MSG__001** - 2÷25 poles, 5 mm / .197" pitch
**MSG__003** - 2÷5 poles, 7.5 mm / .295" pitch
**MSG__002** - 1÷13 poles, 10 mm / .394" pitch
**MSG__005** - 2÷25 poles, 5.08 mm / .200" pitch
**MSG__007** - 2÷6 poles, 7.62 mm / .300" pitch
**MSG__006** - 1÷13 poles, 10.16 mm / .400" pitch



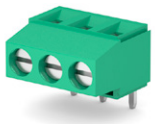
**0°, side stackable**
**MSG__0A1** - 2÷25 poles, 5 mm / .197" pitch
**MSG__0A2** - 2÷13 poles, 10 mm / .394" pitch
**MSG__0A5** - 2÷25 poles, 5.08 mm / .200" pitch
**MSG__0A6** - 2÷13 poles, 10.16 mm / .400" pitch

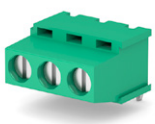


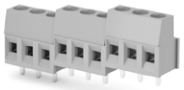
**90°, modular**
**MSG__091** - 2÷25 poles, 5 mm / .197" pitch
**MSG__093** - 2÷5 poles, 7.5 mm / .295" pitch
**MSG__092** - 1÷13 poles, 10 mm / .394" pitch
**MSG__095** - 2÷25 poles, 5.08 mm / .200" pitch
**MSG__097** - 2÷6 poles, 7.62 mm / .300" pitch
**MSG__096** - 1÷13 poles, 10.16 mm / .400" pitch



**270°, modular**
**MSG__051** - 2÷25 poles, 5 mm / .197" pitch
**MSG__053** - 2÷5 poles, 7.5 mm / .295" pitch
**MSG__052** - 1÷13 poles, 10 mm / .394" pitch
**MSG__055** - 2÷25 poles, 5.08 mm / .200" pitch
**MSG__057** - 2÷6 poles, 7.62 mm / .300" pitch
**MSG__056** - 1÷13 poles, 10.16 mm / .400" pitch



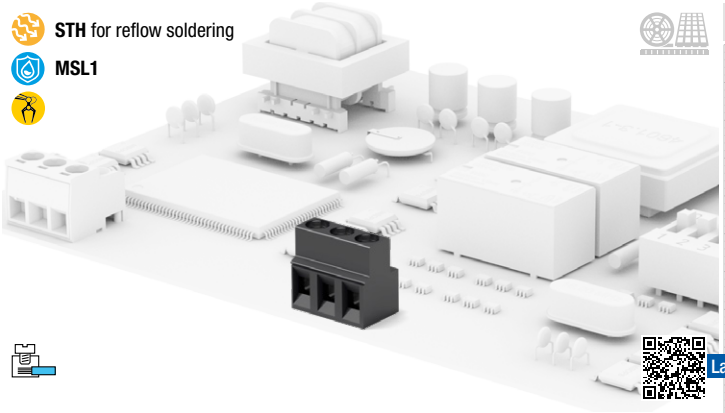




# MSGH

**STH** for reflow soldering

**MSL1**



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | black |
| **Pitches:** | metric 5 mm, 7.5 mm, 10 mm (.197 in, .295 in, .394 in)<br>imperial 5.08 mm, 10.16 mm (.200 in, .400 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5/0.6 Nm (4.42/5.31 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.5 mm (.059 in) |
| **Stripping length:** | 5.5 ÷ 6.5 mm (.22 ÷ .26 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

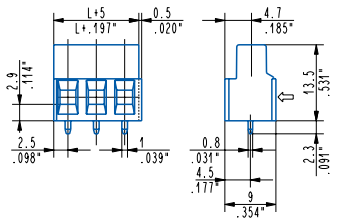
**UL (n. E167473)** *factory wiring - **field wiring
300 V - 17.5 A (*), 15A (**) - 30÷14 AWG - for 5 mm, 5.08 mm, 7.5 mm
600 V - 17.5 A (*), 15A (**) - 30÷14 AWG - for 10 mm and 10.16 mm pitch

## Data according to

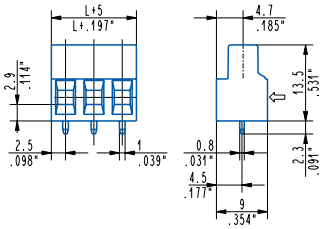
**IEC EN 60947-7-4**
250 V - 24 A - 2.5 mm² solid (17.5 A - 1.5 mm² stranded) for 5 mm and 5.08 mm pitch
750 V - 24 A - 2.5 mm² solid (17.5 A - 1.5 mm² stranded) for 7.5 mm, 10 mm and 10.16 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

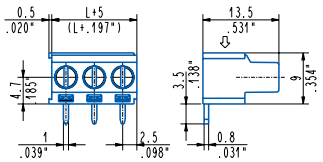
A higher number of poles is obtained by combining together **modular** parts.



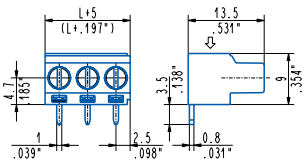

**0°, modular**
**MSGH__0M1-0N** 2÷5 poles, 5 mm / .197" pitch
**MSGH__0M3-0N** 2÷6 poles, 7.5 mm / .295" pitch
**MSGH__0M2-0N** 1÷3 poles, 10 mm / .394" pitch
**MSGH__0M5-0N** 2÷12 poles, 5.08 mm / .200" pitch
**MSGH__0M6-0N** 1÷6 poles, 10.16 mm / .400" pitch



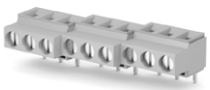

**0°, side stackable**
**MSGH__0A1-0N** 2÷5 poles, 5 mm / .197" pitch
**MSGH__0A3-0N** 2÷6 poles, 7.5 mm / .295" pitch
**MSGH__0A2-0N** 2÷3 poles, 10 mm / .394" pitch
**MSGH__0A5-0N** 2÷12 poles, 5.08 mm / .200" pitch
**MSGH__0A6-0N** 2÷6 poles, 10.16 mm / .400" pitch




**90°, modular**
**MSGH__9M1-0N** 2÷5 poles, 5 mm / .197" pitch
**MSGH__9M3-0N** 2÷6 poles, 7.5 mm / .295" pitch
**MSGH__9M2-0N** 1÷3 poles, 10 mm / .394" pitch
**MSGH__9M5-0N** 2÷12 poles, 5.08 mm / .200" pitch
**MSGH__9M6-0N** 1÷6 poles, 10.16 mm / .400" pitch



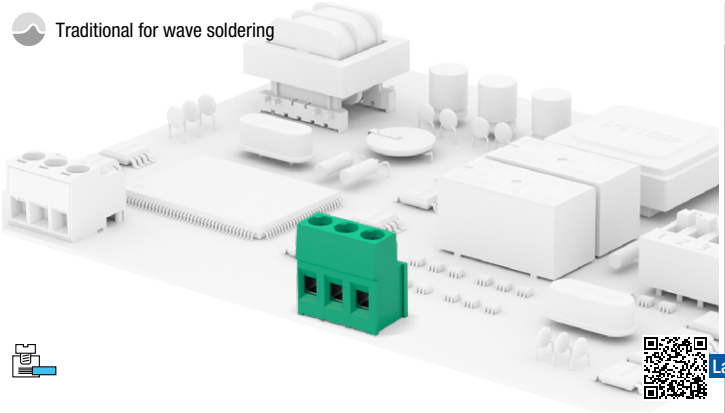

**90°, side stackable**
**MSGH__9A1-0N** 2÷5 poles, 5 mm / .197" pitch
**MSGH__9A3-0N** 2÷6 poles, 7.5 mm / .295" pitch
**MSGH__9A2-0N** 2÷3 poles, 10 mm / .394" pitch
**MSGH__9A5-0N** 2÷12 poles, 5.08 mm / .200" pitch
**MSGH__9A6-0N** 2÷6 poles, 10.16 mm / .400" pitch



L = pitch x (poles - 1)

The drawing refers to only a pitch, please see our complete range of products by visiting our website on **www.sauro.net** or refering to your representative Sales Manager

Traditional for wave soldering



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 7.5 mm, 10 mm (.197 in, .295 in, .394 in) imperial 5.08 mm, 7.62 mm, 10.16 mm (.200 in, .300 in, .400 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5/0.6 Nm (4.42/5.31 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.4 mm (.055 in) |
| **Stripping length:** | 5.5 ÷ 6.5 mm (.22 ÷ .26 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | $>10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**
300 V - 17.5 A - 30÷12 AWG - for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
600 V - 17.5 A - 30÷12 AWG - for 10 mm and 10.16 mm pitch

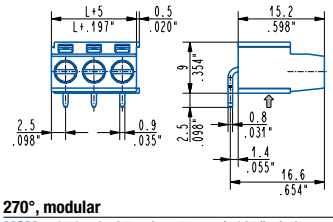
**VDE (n. 40022741)**
250 V - 24 A - 2.5 mm² for 5 mm and 5.08 mm pitch
450 V - 24 A - 2.5 mm² for 7.5 mm and 7.62 mm pitch
750 V - 24 A - 2.5 mm² for 10 mm and 10.16 mm pitch

**IMQ (n. EA022)**
250 V - 24 A - 2.5 mm² - for 5 mm and 5.08 mm pitch
750 V - 24 A - 2.5 mm² - for 7.5 mm, 7.62 mm, 10 mm and 10.16 mm pitch

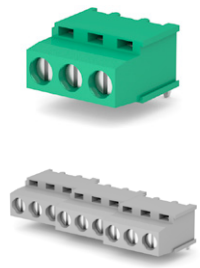
**CSA (n. LR102896)**
300 V - 17.5 A - 30÷12 AWG for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
600 V - 17.5 A - 30÷12 AWG for 10 mm and 10.16 mm pitch

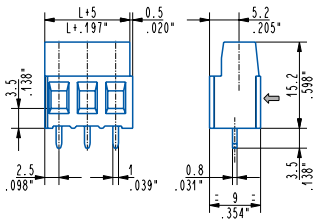
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

A higher number of poles is obtained by combining together **modular** parts.

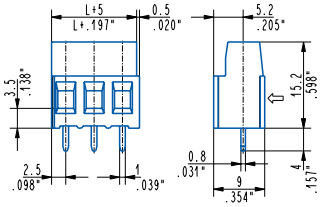



**270°, modular**
**MSM__051** - 2÷25 poles, 5 mm / .197" pitch
**MSM__053** - 2÷4 poles, 7.5 mm / .295" pitch
**MSM__052** - 1÷13 poles, 10 mm / .394" pitch
**MSM__055** - 2÷25 poles, 5.08 mm / .200" pitch
**MSM__057** - 2÷3 poles, 7.62 mm / .300" pitch
**MSM__056** - 1÷13 poles, 10.16 mm / .400" pitch

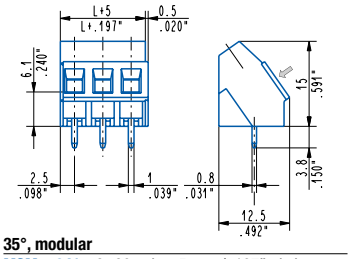




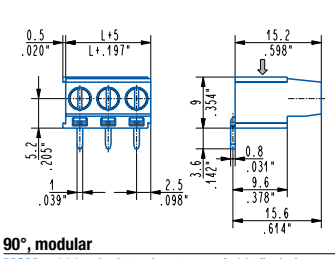

**0°, modular**
**MSM__001** - 2÷25 poles, 5 mm / .197" pitch
**MSM__003** - 2÷4 poles, 7.5 mm / .295" pitch
**MSM__002** - 1÷13 poles, 10 mm / .394" pitch
**MSM__005** - 2÷25 poles, 5.08 mm / .200" pitch
**MSM__007** - 2÷3 poles, 7.62 mm / .300" pitch
**MSM__006** - 1÷13 poles, 10.16 mm / .400" pitch



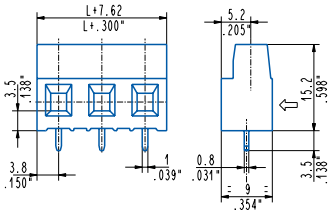

**0°, modular, terminal aligned with the screw**
**MSM__001-000T** 2÷25 poles, 5 mm .197" pitch
**MSM__003-000T** 2÷4 poles, 7.5 mm .295" pitch
**MSM__002-000T** 1÷13 poles, 10 mm .394" pitch
**MSM__005-000T** 2÷25 poles, 5.08 mm .200" pitch
**MSM__007-000T** 2÷3 poles, 7.62 mm .300" pitch
**MSM__006-000T** 1÷13 poles, 10.16 mm .400" pitch



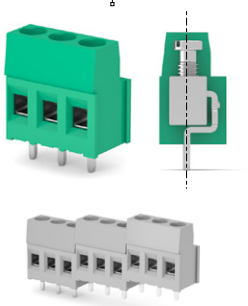

**35°, modular**
**MSM__041** - 2÷20 poles, 5 mm / .197" pitch
**MSM__043** - 2÷12 poles, 7.5 mm / .295" pitch
**MSM__042** - 1÷10 poles, 10 mm / .394" pitch
**MSM__045** - 2÷25 poles, 5.08 mm / .200" pitch
**MSM__047** - 2÷12 poles, 7.62 mm / .300" pitch
**MSM__046** - 1÷13 poles, 10.16 mm / .400" pitch

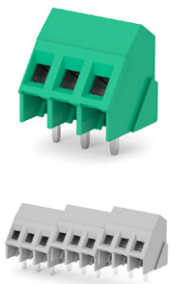


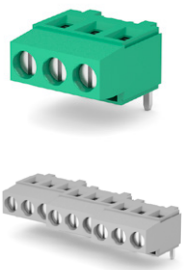

**90°, modular**
**MSM__091** - 2÷25 poles, 5 mm / .197" pitch
**MSM__093** - 2÷4 poles, 7.5 mm / .295" pitch
**MSM__092** - 1÷13 poles, 10 mm / .394" pitch
**MSM__095** - 2÷25 poles, 5.08 mm / .200" pitch
**MSM__097** - 2÷3 poles, 7.62 mm / .300" pitch
**MSM__096** - 1÷13 poles, 10.16 mm / .400" pitch




**0°, side stackable**
**MSM__0A7** - 2÷3 poles, 7.62 mm .300" pitch



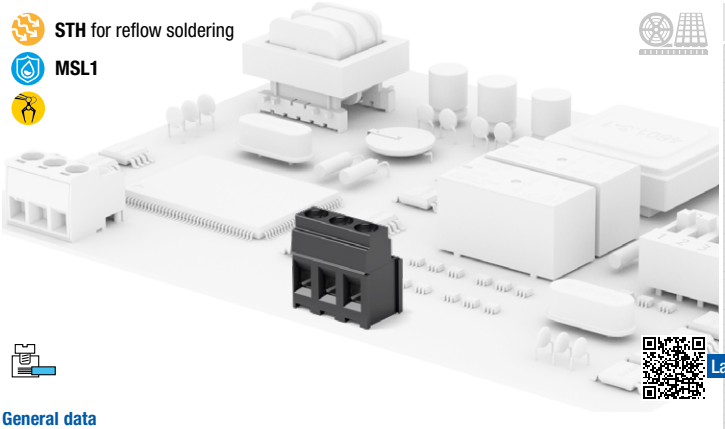




# MSMH

**STH** for reflow soldering

**MSL1**



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | black |
| **Pitches:** | metric 5 mm, 7.5 mm, 10 mm (.197 in, .295 in, .394 in)<br>imperial 7.62 mm (.300 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5/0.6 Nm (4.42/5.31 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.5 mm (.059 in) |
| **Stripping length:** | 5.5 ÷ 6.5 mm (.22 ÷ .26 in) |
| **Operating temperature range**: | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

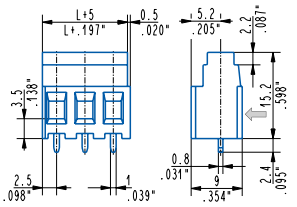
**UL (n. E167473)**
300 V - 17.5 A - 30÷12 AWG - for 5 mm, 7.5 mm and 7.62 mm pitch
600 V - 17.5 A - 30÷12 AWG - for 10 mm pitch

## Data according to

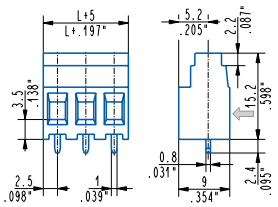
**IEC EN 60947-7-4**
250 V - 24 A - 2.5 mm² - for 5 mm pitch
750 V - 24 A - 2.5 mm² - for 7.5 mm, 7.62 mm and 10 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

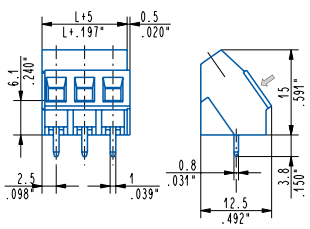
A higher number of poles is obtained by combining together **modular** parts.



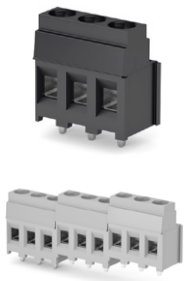

**0°, modular**
**MSMH__0M1-0N** 2÷12 poles, 5 mm / .197" pitch
**MSMH__0M3-0N** 2÷4 poles, 7.5 mm / .295" pitch
**MSMH__0M7-0N** 2÷3 poles, 7.62 mm / .300" pitch

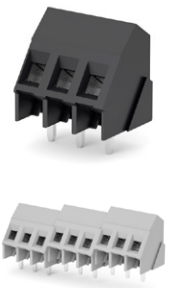



**0°, side stackable**
**MSMH__001-0N** 2÷12 poles, 5 mm / .197" pitch
**MSMH__003-0N** 2÷4 poles, 7.5 mm / .295" pitch
**MSMH__002-0N** 2÷6 poles, 10 mm / .394" pitch
**MSMH__007-0N** 2÷3 poles, 7.62 mm / .300" pitch




**35°, modular**
**MSMH__041-0N** 2÷6 poles, 5 mm / .197" pitch
**MSMH__043-0N** 2÷5 poles, 7.5 mm / .295" pitch



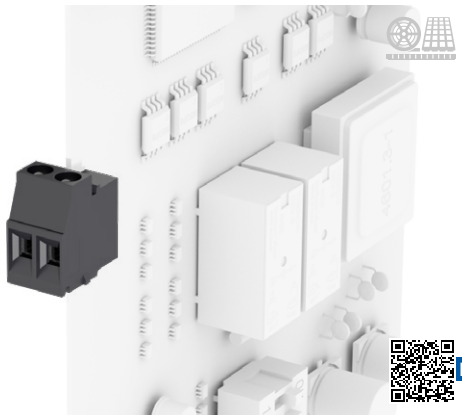


L = pitch x (poles - 1)

The drawing refers to only a pitch, please see our complete range of products by visiting our website on **www.sauro.net** or refering to your representative Sales Manager

**STH** for reflow soldering

**MSL1**



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | black |
| **Pitches:** | metric 5 mm (.197 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5/0.6 Nm (4.42/5.31 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.4 mm (.055 in) |
| **Stripping length:** | 5.5 ÷ 6.5 mm (.22 ÷ .26 in) |
| **Operating temperature range**: | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | $>10^9$ Ω (500V DC) |

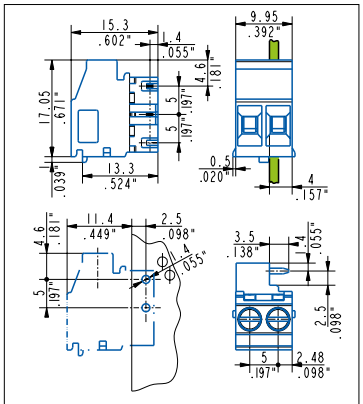
## Certifications

**UL (n. E167473)**
300 V - 17.5 A - 30÷12 AWG

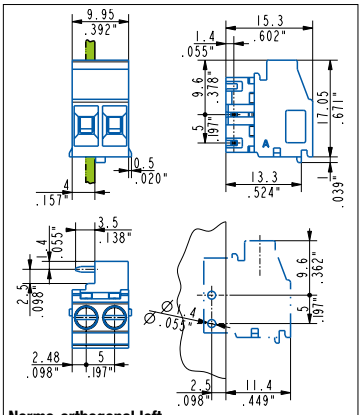
## Data according to

**IEC EN 60947-7-4**
250 V - 24 A - 2.5 mm² - for 5 mm pitch
750 V - 24 A - 2.5 mm² - for 7.5 mm, 7.62 mm and 10 mm pitch

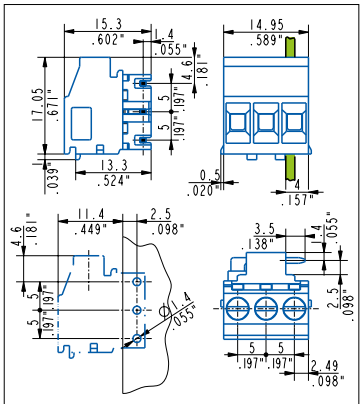
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.



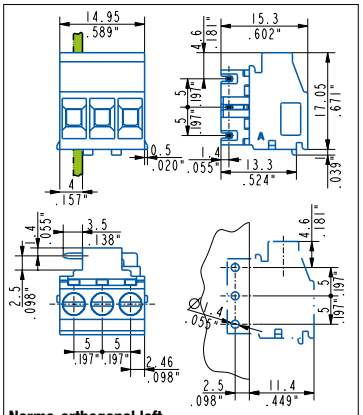
**Normo-orthogonal right**
**MSMH02NR1-0N** - 2 poles, 5 mm / .197" pitch



**Normo-orthogonal left**
**MSMH02NL1-0N** - 2 poles, 5 mm / .197" pitch



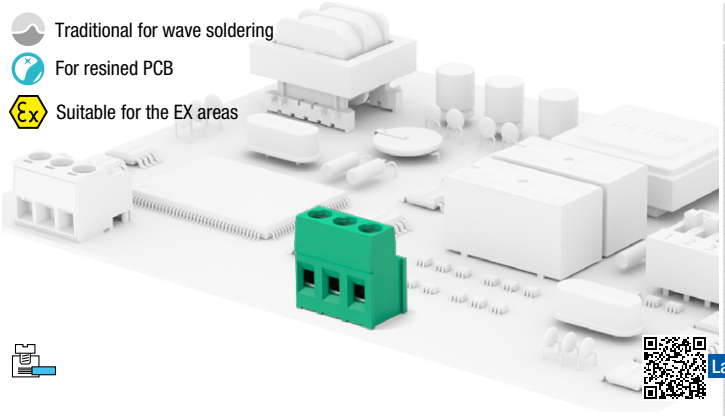
**Normo-orthogonal right**
**MSMH03NR1-0N** - 3 poles, 5 mm / .197" pitch



**Normo-orthogonal left**
**MSMH03NL1-0N** - 3 poles, 5 mm / .197" pitch

# MSS

- Traditional for wave soldering
- For resined PCB
- Suitable for the EX areas



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 7.5 mm, 10 mm (.197 in, .295 in, .394 in) imperial 5.08 mm, 7.62 mm, 10.16 mm (.200 in, .300 in, .400 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5/0.6 Nm (4.42/5.31 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.4 mm (.055 in) |
| **Stripping length:** | 5.5 ÷ 6.5 mm (.22 ÷ .26 in) |
| **Operating temperature range** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | $>10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**
300 V - 17.5 A - 30÷12 AWG - for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
600 V - 17.5 A - 30÷12 AWG - for 10 mm and 10.16 mm pitch

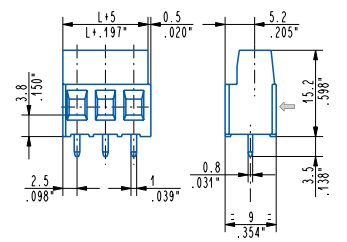
**VDE (n. 40022745)**
250 V - 24 A - 2.5 $mm^2$ - for 5 mm and 5.08 mm pitch
750 V - 24 A - 2.5 $mm^2$ - for 7.5 mm, 7.62 mm, 10 mm and 10.16 mm pitch

**IMQ (n. EA022)**
250 V - 24 A - 2.5 $mm^2$ - for 5 mm and 5.08 mm pitch
750 V - 24 A - 2.5 $mm^2$ - for 7.5 mm, 7.62 mm, 10 mm and 10.16 mm pitch

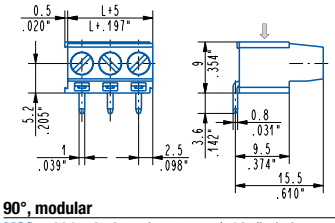
**CSA (n. LR102896)**
300 V - 17.5 A - 30÷12 AWG for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
600 V - 17.5 A - 30÷12 AWG for 10 mm and 10.16 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

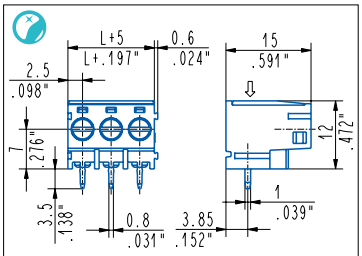
A higher number of poles is obtained by combining together **modular** parts.



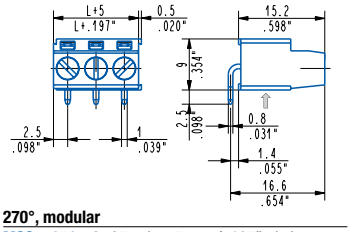
**0°, modular**
MSS__001 - 2÷25 poles, 5 mm / .197" pitch
MSS__003 - 2÷4 poles, 7.5 mm / .295" pitch
MSS__002 - 1÷13 poles, 10 mm / .394" pitch
MSS__005 - 2÷25 poles, 5.08 mm / .200" pitch
MSS__007 - 2÷3 poles, 7.62 mm / .300" pitch
MSS__006 - 1÷13 poles, 10.16 mm / .400" pitch



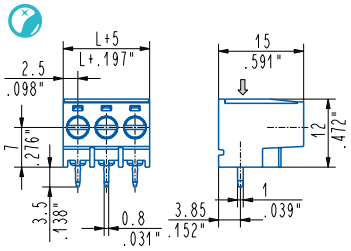
**90°, modular**
MSS__091 - 2÷25 poles, 5 mm / .197" pitch
MSS__093 - 2÷4 poles, 7.5 mm / .295" pitch
MSS__092 - 1÷13 poles, 10 mm / .394" pitch
MSS__095 - 2÷25 poles, 5.08 mm / .200" pitch
MSS__097 - 2÷3 poles, 7.62 mm / .300" pitch
MSS__096 - 1÷13 poles, 10.16 mm / .400" pitch



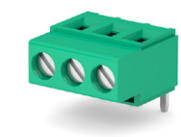
**90° "T" version, modular**
MSS__TM1 - 2÷18 poles, 5 mm / .197" pitch
MSS__TM3 - 2÷3 poles, 7.5 mm / .295" pitch
MSS__TM2 - 1÷9 poles, 10 mm / .394" pitch
MSS__TM5 - 2÷3 poles, 5.08 mm / .200" pitch
MSS__TM7 - 2÷3 poles, 7.62 mm / .300" pitch
MSS__TM6 - 1÷2 poles, 10.16 mm / .400" pitch

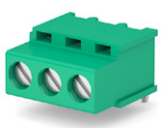


**270°, modular**
MSS__051 - 2÷25 poles, 5 mm / .197" pitch
MSS__053 - 2÷4 poles, 7.5 mm / .295" pitch
MSS__052 - 1÷13 poles, 10 mm / .394" pitch
MSS__055 - 2÷25 poles, 5.08 mm / .200" pitch
MSS__057 - 2÷3 poles, 7.62 mm / .300" pitch
MSS__056 - 1÷13 poles, 10.16 mm / .400" pitch



**90° "T" version, side stackable**
MSS__TA1 - 2÷18 poles, 5 mm / .197" pitch
MSS__TA2 - 2÷9 poles, 10 mm / .394" pitch





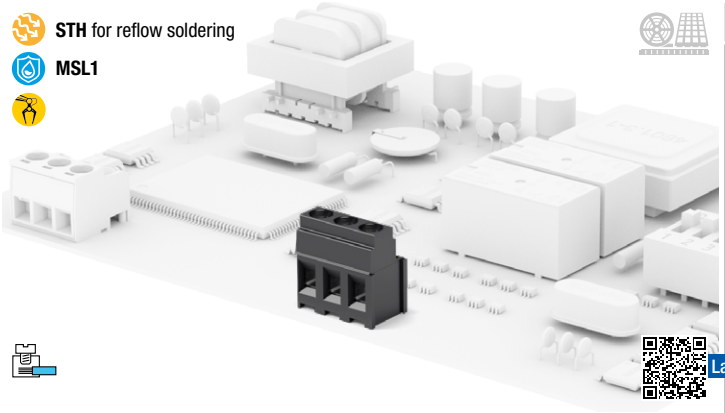
L = pitch x (poles - 1)

The drawing refers to only a pitch, please see our complete range of products by visiting our website on **www.sauro.net** or refering to your representative Sales Manager

# MSSH

**STH** for reflow soldering

**MSL1**



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | black |
| **Pitches:** | metric 5 mm, 7.5 mm, 10 mm (.197 in, .295 in, .394 in)<br>imperial 7.62 mm (.300 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5/0.6 Nm (4.42/5.31 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | 1.5 mm (.059 in) |
| **Stripping length:** | 5.5 ÷ 6.5 mm (.22 ÷ .26 in) |
| **Operating temperature range** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

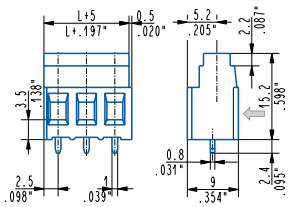
## Data according to

**UL 1059**
300 V - 17.5 A - 30÷12 AWG - for 5 mm, 7.5 mm and 7.62 mm pitch
600 V - 17.5 A - 30÷12 AWG - for 10 mm pitch

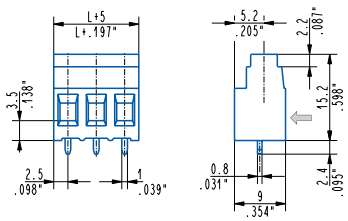
**IEC EN 60947-7-4**
250 V - 24 A - 2.5 $mm^2$ - for 5 mm pitch
750 V - 24 A - 2.5 $mm^2$ - for 7.5 mm, 7.62 mm, 10 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

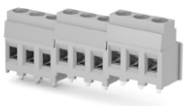
A higher number of poles is obtained by combining together **modular** parts.



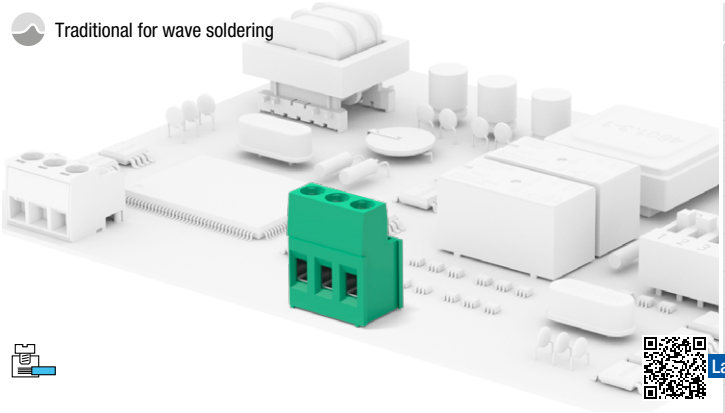

**0°, modular**
**MSSH__0M1-0N** 2÷25 poles, 5 mm / .197" pitch
**MSSH__0M3-0N** 2÷4 poles, 7.5 mm / .295" pitch
**MSSH__0M2-0N** 1÷13 poles, 10 mm / .394" pitch




**0°, side stackable**
**MSSH__001-0N** 2÷25 poles, 5 mm / .197" pitch
**MSSH__003-0N** 2÷4 poles, 7.5 mm / .295" pitch
**MSSH__002-0N** 2÷13 poles, 10 mm / .394" pitch
**MSSH__007-0N** 2÷3 poles, 7.62 mm / .300" pitch



Traditional for wave soldering



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | high |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 7.5 mm, 10 mm (.197 in, .295 in, .394 in)<br>imperial 5.08, 7.62, 10.16 mm (.200, .300, .400 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5/0.6 Nm (4.42/5.31 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.4 mm (.055 in) |
| **Stripping length:** | 6.5 ÷ 7 mm (.26 ÷ .28 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**
300 V - 24 A (factory wiring), 20 A (field wiring) - 30÷12 AWG - for 5 mm, 5.08 mm, 7.5 and 7.62 mm
600 V - 24 A (factory wiring), 20 A (field wiring) - 30÷12 AWG - for 10 mm and 10.16 mm pitch

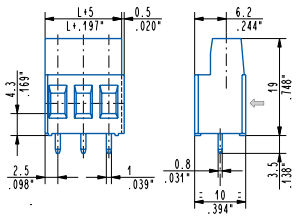
**VDE (n. 40022743)**
250 V - 24 A - 2.5 mm² for 5 mm and 5.08 mm pitch
450 V - 24 A - 2.5 mm² for 7.5 mm and 7.62 mm pitch
750 V - 24 A - 2.5 mm² for 10 mm and 10.16 mm pitch

**IMQ (n. EB731)**
250 V - 32 A - 4 mm² solid (24 A - 2.5 mm² stranded) for 5 mm and 5.08 mm pitch
750 V - 32 A - 4 mm² solid (24 A - 2.5 mm² stranded) for 7.5 mm, 7.62 mm, 10 mm and 10.16 mm pitch

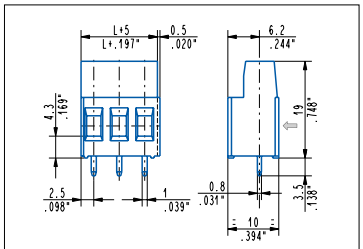
**CSA (n. LR102896)**
300 V - 24 A - 30÷11 AWG for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
600 V - 24 A - 30÷11 AWG for 10 mm and 10.16 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

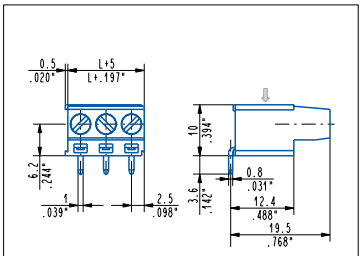
A higher number of poles is obtained by combining together **modular** parts.



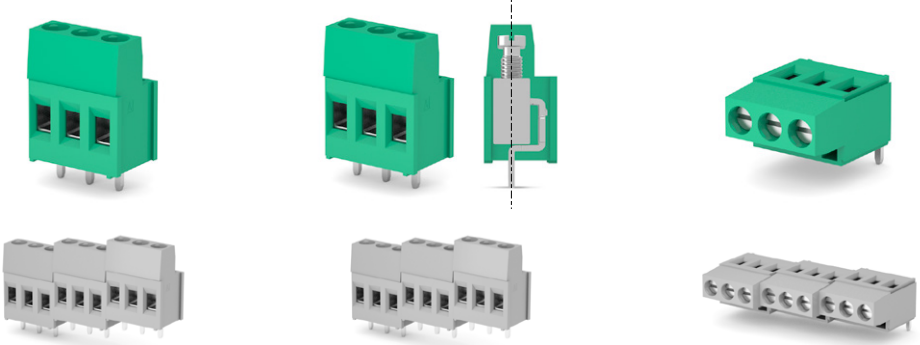
**0°, modular**
**MSQ__001** - 2÷25 poles, 5 mm / .197" pitch
**MSQ__003** - 2÷4 poles, 7.5 mm / .295" pitch
**MSQ__002** - 1÷13 poles, 10 mm / .394" pitch
**MSQ__005** - 2÷25 poles, 5.08 mm / .200" pitch
**MSQ__007** - 2÷3 poles, 7.62 mm / .300" pitch
**MSQ__006** - 1÷13 poles, 10.16 mm / .400" pitch



**0°, modular, terminal aligned with the screw**
**MSQ__001-000T** 2÷25 poles, 5 mm .197" pitch
**MSQ__003-000T** 2÷4 poles, 7.5 mm .295" pitch
**MSQ__002-000T** 1÷13 poles, 10 mm .394" pitch
**MSQ__005-000T** 2÷25 poles, 5.08 mm .200" pitch
**MSQ__007-000T** 2÷3 poles, 7.62 mm .300" pitch
**MSQ__006-000T** 1÷13 poles, 10.16 mm .400" pitch



**90°, modular**
**MSQ__091** - 2÷25 poles, 5 mm / .197" pitch
**MSQ__093** - 2÷4 poles, 7.5 mm / .295" pitch
**MSQ__092** - 1÷13 poles, 10 mm / .394" pitch
**MSQ__095** - 2÷25 poles, 5.08 mm / .200" pitch
**MSQ__097** - 2÷3 poles, 7.62 mm / .300" pitch
**MSQ__096** - 1÷13 poles, 10.16 mm / .400" pitch



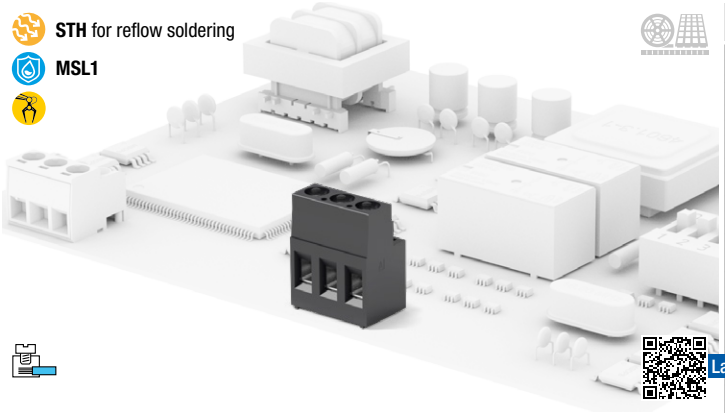
L = pitch x (poles - 1)

The drawing refers to only a pitch, please see our complete range of products by visiting our website on **www.sauro.net** or refering to your representative Sales Manager

# MSQH

**STH** for reflow soldering

**MSL1**



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | high |
| **Standard colour:** | black |
| **Pitches:** | metric 5 mm, 7.5 mm (.197 in, .295 in)<br>imperial 5.08 mm, 7.62 mm (.200 in, .300 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5/0.6 Nm (4.42/5.31 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.5 mm (.059 in) |
| **Stripping length:** | 6.5 ÷ 7 mm (.26 ÷ .28 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Data according to

**UL 1059**

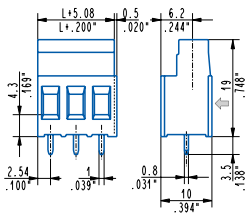
300 V - 24 A (factory wiring), 20 A (field wiring) - 30÷12 AWG - for 5 mm, 5.08 mm, 7.5 and 7.62 mm
600 V - 24 A (factory wiring), 20 A (field wiring) - 30÷12 AWG - for 10 mm pitch

**IEC EN 60947-7-4**

250 V - 32 A - 4 $mm^2$ solid (24 A - 2.5 $mm^2$ stranded) for 5 mm and 5.08 mm pitch
750 V - 32 A - 4 $mm^2$ solid (24 A - 2.5 $mm^2$ stranded) for 7.5 mm, 7.62 mm, 10 mm and 10.16 mm pitch

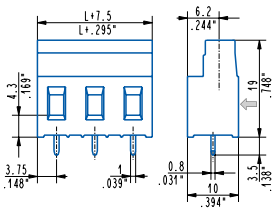
Application values for end-use equipment have to be in accordance to norms and applicable to it.
The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

A higher number of poles is obtained by combining together **modular** parts.



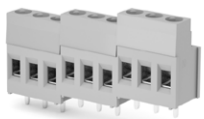

**0°, modular**

**MSQH__0M3-0N** 2÷4 poles, 7.5 mm / .295" pitch
**MSQH__0M5-0N** 2÷6 poles, 5.08 mm / .200" pitch
**MSQH__0M7-0N** 2÷3 poles, 7.62 mm / .300" pitch



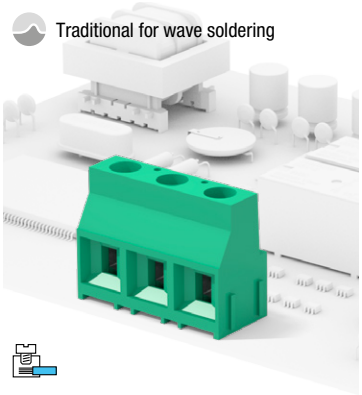

**0°, side stackable**

**MSQH__0A3-0N** 2÷12 poles, 7.5 mm / .295" pitch
**MSQH__0A5-0N** 2÷6 poles, 5.08 mm / .200" pitch
**MSQH__0A7-0N** 2÷3 poles, 7.62 mm / .300" pitch



# MSP

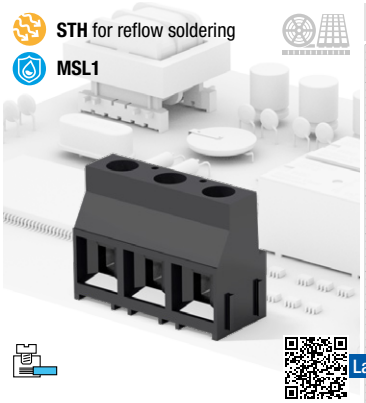
Traditional for wave soldering



# MSPH

**STH** for reflow soldering

**MSL1**



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | high |
| **Standard colour:** | green for wave soldering, black for reflow soldering |
| **Pitches:** | imperial 6.35, 7.62, 9.52, 12.7 (.250, .300, .375, .500 in) |
| **Screw dimension:** | M3.5 |
| **Recommended/highest tightening torque:** | 0.8/1 Nm (7/8.85 lbf·in) |
| **PCB thickness:** | max. 4 mm (.157 in) |
| **PCB hole diameter:** | min. 1.4 mm (.055 in) |
| **Stripping length:** | 7 ÷ 8 mm (.28 ÷ .31 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **STH operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**
300 V - 30 A - 30÷10 AWG - for 6.35 mm 7.62 mm 9.52 mm pitch
600 V - 30 A - 30÷10 AWG - for 12.7 mm pitch
For **low ampere** rating version
300 V - 24 A - 30÷10 AWG - for 6.35 mm 7.62 mm pitch
600 V - 24 A - 30÷10 AWG - for 9.52 mm 12.7 mm pitch

**VDE (n. 40021758)**
450 V - 32 A - 4 mm² for 6.35 mm pitch
750 V - 32 A - 4 mm² for 9.52 mm pitch

**IMQ (n. CA02.00899)**
450 V - 41 A - 6 mm² solid (32 A - 4 mm² stranded) for 6.35 mm pitch
750 V - 41 A - 6 mm² solid (32 A - 4 mm² stranded) for 9.52 mm pitch

**CSA (n. LR102896)**
300 V - 30 A - 30÷10 AWG for 6.35 mm and 9.52 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

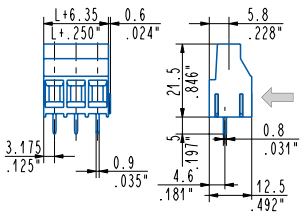
A higher number of poles is obtained by combining together **modular** parts.

## MSPH Data according to

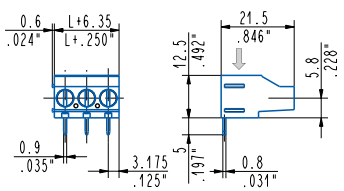
**UL 1059**
300 V - 30 A - 30÷10 AWG - for 6.35 mm 7.62 mm 9.52 mm pitch
600 V - 30 A - 30÷10 AWG - for 12.7 mm pitch

**IEC EN 60947-7-4**
450 V - 41 A - 6 mm² solid (32 A - 4 mm² stranded) for 6.35 mm pitch
750 V - 41 A - 6 mm² solid (32 A - 4 mm² stranded) for 9.52 mm pitch

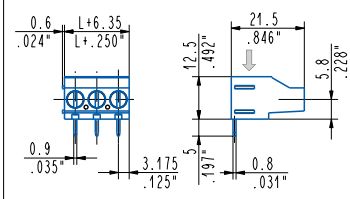
In order to protect terminals during transport, the product in box is packaged in row trays.



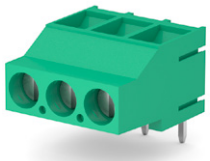

**0°, modular**
**MSP__00S** - 2÷8 poles, 6.35 mm / .250" pitch
**MSP__007** - 2÷3 poles, 7.62 mm / .300" pitch
**MSP__00N** - 2÷3 poles, 9.52 mm / .375" pitch
**MSP__00U** - 1÷3 poles, 12.7 mm / .500" pitch
**MSPH__00S-0N** 2÷5 poles, 6.35 mm / .250" pitch
**MSPH__007-0N** 2÷3 poles, 7.62 mm / .300" pitch
**MSPH__00N-0N** 2÷3 poles, 9.52 mm / .375" pitch

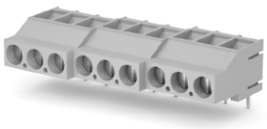


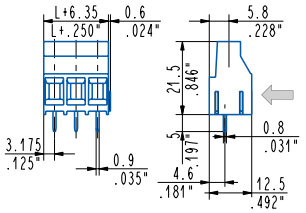

**90°, modular**
**MSP__09S** - 2÷8 poles, 6.35 mm / .250" pitch
**MSP__097** - 2÷3 poles, 7.62 mm / .300" pitch
**MSP__09N** - 2÷3 poles, 9.52 mm / .375" pitch
**MSP__09U** - 1÷3 poles, 12.7 mm / .500" pitch
**MSPH__09S-0N** 2÷5 poles, 6.35 mm / .250" pitch
**MSPH__097-0N** 2÷3 poles, 7.62 mm / .300" pitch
**MSPH__09N-0N** 2÷3 poles, 9.52 mm / .375" pitch



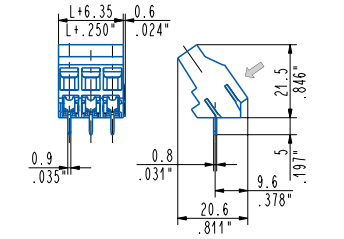

**90°, modular, low ampere rating**
**MSP__09S-000E** 2÷8 poles, 6.35 mm .250" pitch
**MSP__097-000E** 2÷3 poles, 7.62 mm .300" pitch
**MSP__09N-000E** 2÷3 poles, 9.52 mm .375" pitch
**MSP__09U-000E** 1÷3 poles, 12.7 mm .500" pitch



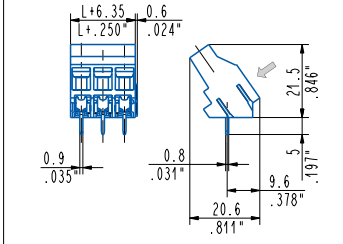




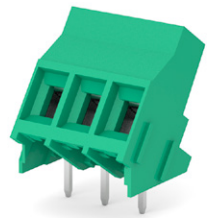

**0°, modular, low ampere rating**
**MSP__00S-000E** 2÷8 poles, 6.35 mm .250" pitch
**MSP__007-000E** 2÷3 poles, 7.62 mm .300" pitch
**MSP__00N-000E** 2÷3 poles, 9.52 mm .375" pitch
**MSP__00U-000E** 1÷3 poles, 12.7 mm .500" pitch

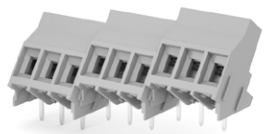



**35°, modular**
**MSP__04S** - 2÷3 poles, 6.35 mm / .250" pitch
**MSP__04N** - 2÷3 poles, 9.52 mm / .375" pitch
**MSP__04U** - 1÷2 poles, 12.7 mm / .500" pitch
**MSPH__04S-0N** - 2÷3 poles, 6.35 mm / .250" pitch
**MSPH__04N-0N** - 2÷3 poles, 9.52 mm / .375" pitch




**35°, modular, low ampere rating**
**MSP__04S-000E** 2÷3 poles, 6.35 mm / .250" pitch
**MSP__04N-000E** 2÷3 poles, 9.52 mm / .375" pitch
**MSP__04U-000E** 1÷2 poles, 12.7 mm / .500" pitch

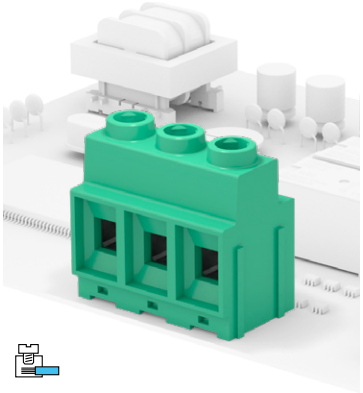




L = pitch x (poles - 1)

The drawing refers to only a pitch, please see our complete range of products by visiting our website on **www.sauro.net** or refering to your representative Sales Manager

# MPS



# MPSH

**STH** for reflow soldering

**MSL1**

Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | high |
| **Standard colour:** | green |
| **Pitches:** | imperial 10.16 mm (.400 in) |
| **Screw dimension:** | M4 |
| **Recommended/highest tightening torque:** | 1.2/1.5 Nm (10.62/13.28 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.5 mm (.059 in) |
| **Stripping length:** | 10.5 ÷ 11.5 mm (.41 ÷ .45 in) |
| **Operating temperature range** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

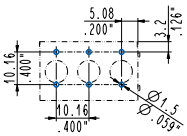
**UL (n. E167473) - MPS, MPSH**
600 V - 60 A - 20÷6 AWG - 1.2 Nm for 10.16 mm pitch (version "S")
600 V - 57 A - 20÷6 AWG - 1.2 Nm for 10.16 mm pitch (version "Z")
300 V - 60 A - 20÷6 AWG - 1.2 Nm for 10.16 mm pitch (version "D")

**VDE (n. 40036991) - MPS**
1000 V - T 110 - 76 A - 16 mm² solid (57 A - 10 mm² stranded) for 10.16 mm pitch (version "S")
1000 V - T 110 - 72 A - 16 mm² solid (57 A - 10 mm² stranded) for 10.16 mm pitch (version "Z")
450 V - T 110 - 76 A - 16 mm² solid (57 A - 10 mm² stranded) for 10.16 mm pitch (version "D")

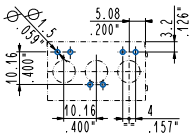
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

A higher number of poles is obtained by combining together **modular** parts.

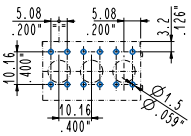
PCB layout "**S**" version

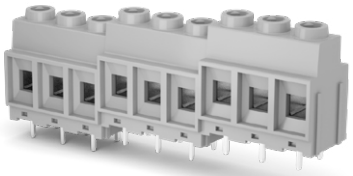


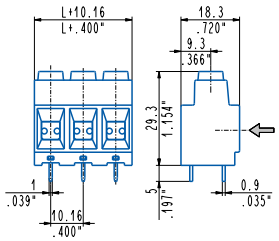
PCB layout "**Z**" version



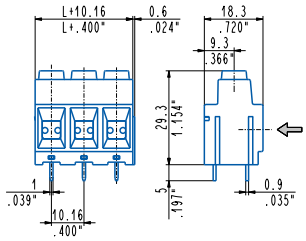
PCB layout "**D**" version



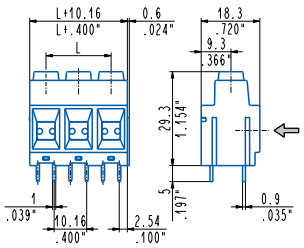




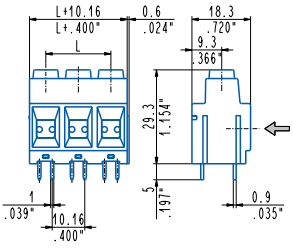
**0°, side stackable**
**MPS__SA6** 2÷6 poles, 10.16 mm .400" pitch
**MPSH__SA6-0N** 2÷6 poles, 10.16 mm .400" pitch



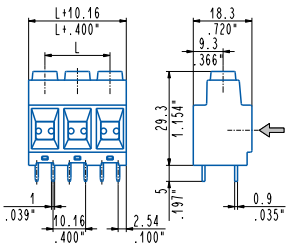
**0°, modular**
**MPS__S06** 2÷6 poles, 10.16 mm .400" pitch
**MPSH__S06-0N** 2÷6 poles, 10.16 mm .400" pitch



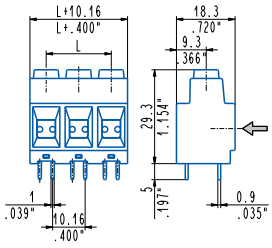
**0°, modular**
**MPS__D06** 2÷6 poles, 10.16 mm .400" pitch
**MPSH__D06-0N** 2÷6 poles, 10.16 mm .400" pitch



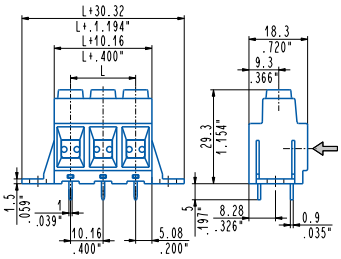
**0°, modular**
**MPS__Z06** 2÷6 poles, 10.16 mm .400" pitch
**MPSH__Z06-0N** 2÷6 poles, 10.16 mm .400" pitch



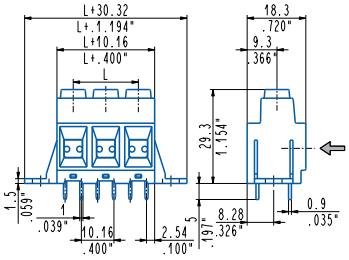
**0°, side stackable**
**MPS__DA6** 2÷6 poles, 10.16 mm .400" pitch
**MPSH__DA6-0N** 2÷6 poles, 10.16 mm .400" pitch



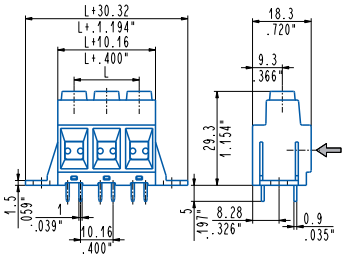
**0°, side stackable**
**MPS__ZA6** 2÷6 poles, 10.16 mm .400" pitch
**MPSH__ZA6-0N** 2÷6 poles, 10.16 mm .400" pitch



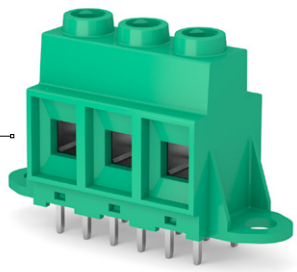
**0°, mounting flanges**
**MPS__SV6** 2÷6 poles, 10.16 mm .400" pitch
**MPSH__SV6-0N** 2÷6 poles, 10.16 mm .400" pitch



**0°, mounting flanges**
**MPS__DV6** 2÷6 poles, 10.16 mm .400" pitch
**MPSH__DV6-0N** 2÷6 poles, 10.16 mm .400" pitch

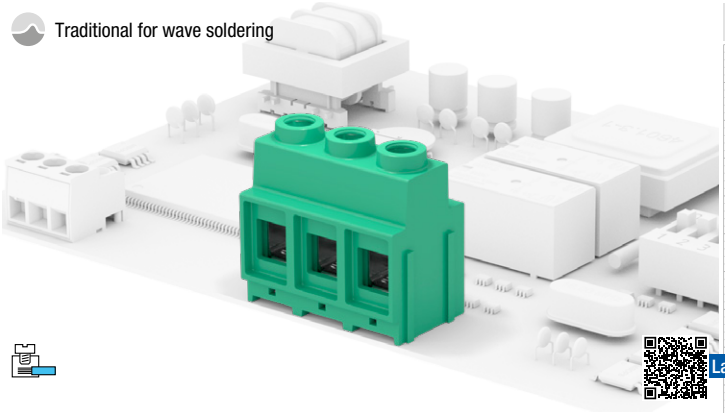


**0°, mounting flanges**
**MPS__ZV6** 2÷6 poles, 10.16 mm .400" pitch
**MPSH__ZV6-0N** 2÷6 poles, 10.16 mm .400" pitch



# MPM

Traditional for wave soldering

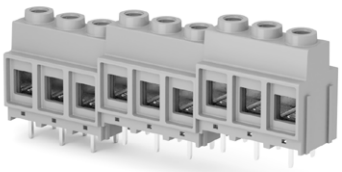


Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | high |
| **Standard colour:** | green |
| **Pitches:** | imperial 10.16 mm (.400 in) |
| **Screw dimension:** | M4 |
| **Recommended/highest tightening torque:** | 1.2 Nm (10.62 lbf·in) |
| **PCB thickness:** | max. 3.2 mm (.126 in) |
| **PCB hole diameter:** | min. 1.5 mm (.059 in) |
| **Stripping length:** | 10 ÷ 12 mm (.39 ÷ .47 in) |
| **Operating temperature range** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |



## Certifications

**UL (n. E167473)**

**MPM__S_6**
300 V - 57 A - 16÷6 AWG - cat. B/C
600 V - 5 A - 16÷6 AWG - cat. D

**MPM__S_6-000E**
300 V - 42 A - 16÷6 AWG - cat. B/C
600 V - 5 A - 16÷6 AWG - cat. D

**MPM__Z_6**
600 V - 57 A - 16÷6 AWG - cat. B/C/D

**MPM__Z_6-000E**
600 V - 42 A - 16÷6 AWG - cat. B/C/D

**MPM__D_6**
300 V - 65 A - 16÷6 AWG - cat. B
150 V - 65 A - 16÷6 AWG - cat. C
300 V - 10 A - 16÷6 AWG - cat. D

**MPM__D_6-000E**
300 V - 42 A - 16÷6 AWG - cat. B
150 V - 42 A - 16÷6 AWG - cat. C
300 V - 10 A - 16÷6 AWG - cat. D

## Data according to

**IEC EN 60947-7-4**

**MPM__S_6**
1000 V - 76 A - 0.5÷16 mm²

**MPM__S_6-000E**
1000 V - 66 A - 0.5÷16 mm²

**MPM__Z_6**
1000 V - 72 A - 0.5÷16 mm²

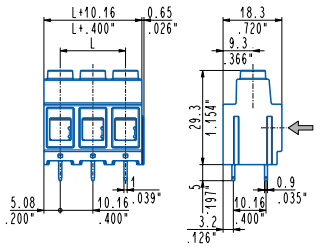
**MPM__Z_6-000E**
1000 V - 62 A - 0.5÷16 mm²

**MPM__D_6**
320 V - 76 A - 0.5÷16 mm²

**MPM__D_6-000E**
320 V - 76 A - 0.5÷16 mm²

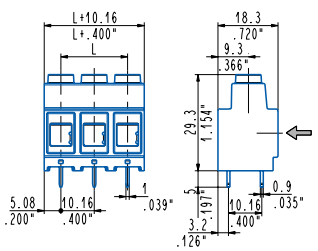
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

A higher number of poles is obtained by combining together **modular** parts.



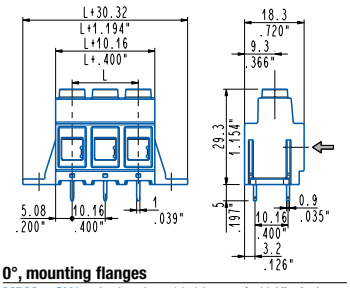

**0°, modular**
**MPM__SM6** - 2÷6 poles, 10.16 mm / .400" pitch
**MPM__SM6-000E** 2÷6 poles 10.16 mm .400" pitch

**-000E** = Low current version




**0°, side stackable**
**MPM__SA6** - 2÷6 poles, 10.16 mm / .400" pitch
**MPM__SA6-000E** 2÷6 poles 10.16 mm .400" pitch

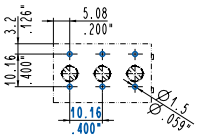
**-000E** = Low current version

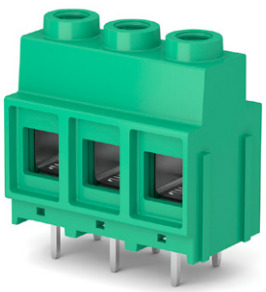


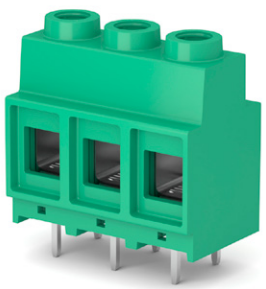

**0°, mounting flanges**
**MPM__SV6** - 2÷6 poles, 10.16 mm / .400" pitch
**MPM__SV6-000E** 2÷6 poles 10.16 mm .400" pitch

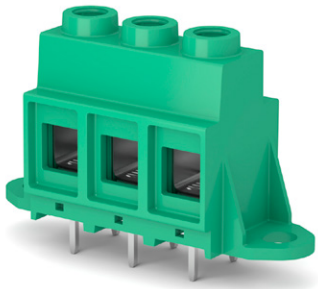
**-000E** = Low current version

PCB layout "**S**" version



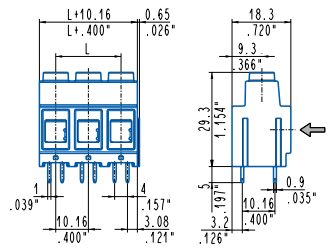







L = pitch x (poles - 1)

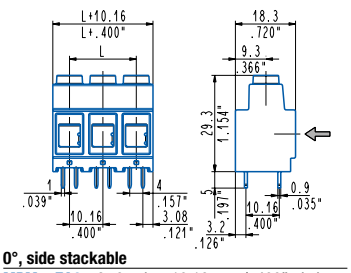
The drawing refers to only a pitch, please see our complete range of products by visiting our website on **www.sauro.net** or refering to your representative Sales Manager



**0°, modular**

**MPM__ZM6** - 2÷6 poles, 10.16 mm / .400” pitch
**MPM__ZM6-000E** 2÷6 poles 10.16 mm .400” pitch

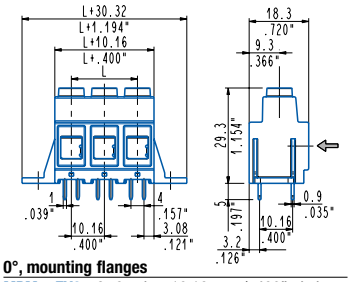
**-000E** = Low current version



**0°, side stackable**

**MPM__ZA6** - 2÷6 poles, 10.16 mm / .400” pitch
**MPM__ZA6-000E** 2÷6 poles 10.16 mm .400” pitch

**-000E** = Low current version

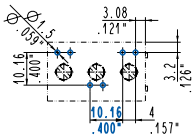


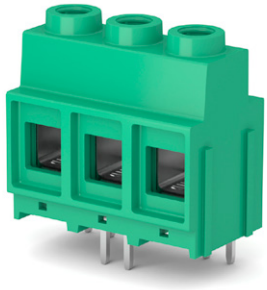
**0°, mounting flanges**

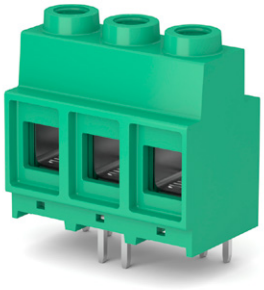
**MPM__ZV6** - 2÷6 poles, 10.16 mm / .400” pitch
**MPM__ZV6-000E** 2÷6 poles 10.16 mm .400” pitch

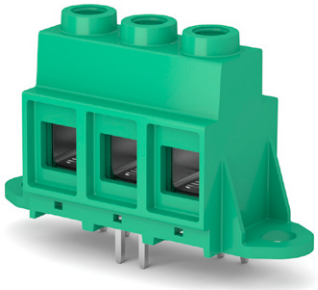
**-000E** = Low current version

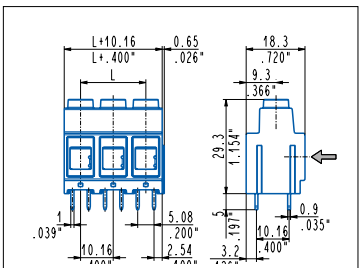
PCB layout “**Z**” version







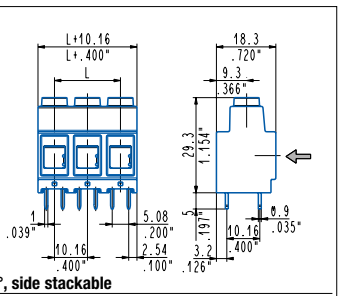




**0°, modular**

**MPM__DM6** - 2÷6 poles, 10.16 mm / .400” pitch
**MPM__DM6-000E** 2÷6 poles 10.16 mm .400” pitch

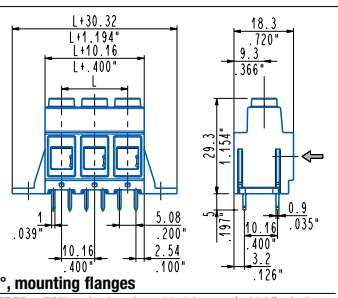
**-000E** = Low current version



**0°, side stackable**

**MPM__DA6** - 2÷6 poles, 10.16 mm / .400” pitch
**MPM__DA6-000E** 2÷6 poles 10.16 mm .400” pitch

**-000E** = Low current version

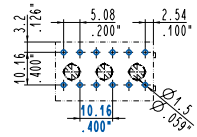


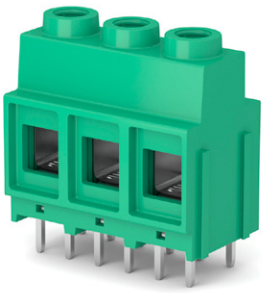
**0°, mounting flanges**

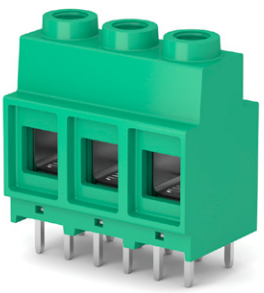
**MPM__DV6** - 2÷6 poles, 10.16 mm / .400” pitch
**MPM__DV6-000E** 2÷6 poles 10.16 mm .400” pitch

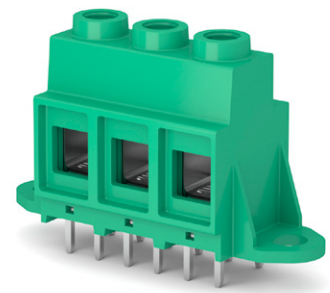
**-000E** = Low current version

PCB layout “**D**” version

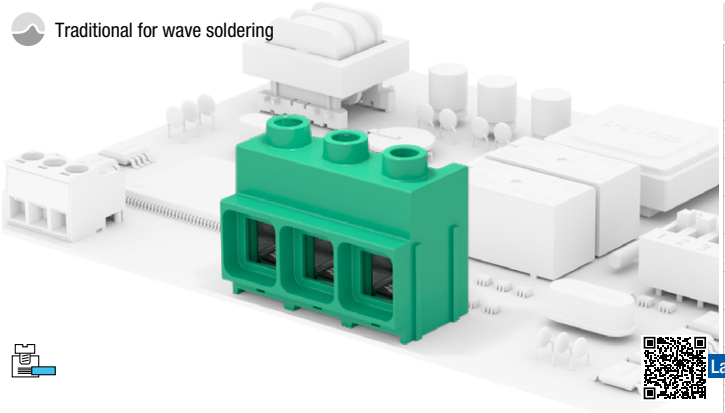








Traditional for wave soldering

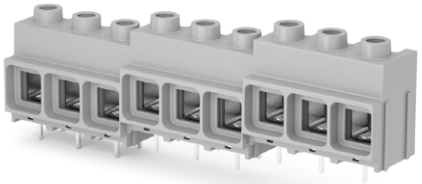


Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | high |
| **Standard colour:** | green |
| **Pitches:** | imperial 12.7, 15.24 mm (.500, .600 in) |
| **Screw dimension:** | M4 |
| **Recommended/highest tightening torque:** | 1.4 Nm (12.4 lbf·in) |
| **PCB thickness:** | max. 3.2 mm (.126 in) |
| **PCB hole diameter:** | min. 1.5 mm (.059 in) |
| **Stripping length:** | 10 ÷ 12 mm (.39 ÷ .47 in) |
| **Operating temperature range** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |



## Data according to

**UL (n. E167473)**

**MPL__S_U - MPL__S_R**
600 V - 72 A - 16÷4 AWG - cat. B/C/D
**MPL__S_U-000E - MPL__S_R-000E**
600 V - 51 A - 16÷4 AWG - cat. B/C/D
**MPL__Z_U - MPL__Z_R**
600 V - 72 A - 16÷4 AWG - cat. B/C/D
**MPL__Z_U-000E - MPL__Z_R-000E**
600 V - 51 A - 16÷4 AWG - cat. B/C/D
**MPL__D_U**
300 V - 85 A - 16÷4 AWG - cat. B/C
600 V - 5 A - 16÷4 AWG - cat. D
**MPL__D_U-000E**
300 V - 51 A - 16÷4 AWG - cat. B/C
600 V - 5 A - 16÷4 AWG - cat. D
**MPL__D_R**
600 V - 85 A - 16÷4 AWG - cat. B/C/D
**MPL__D_R-000E**
600 V - 51 A - 16÷4 AWG - cat. B/C/D

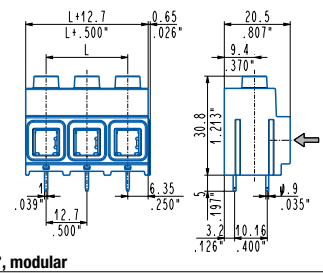
## Data according to

**IEC EN 60947-7-4**

**MPL__S_U - MPL__S_R**
1000 V - 92 A - 0.5÷25 mm²
**MPL__S_U-000E - MPL__S_R-000E**
1000 V - 77 A - 0.5÷25 mm²
**MPL__Z_U - MPL__Z_R**
1000 V - 85 A - 0.5÷25 mm²
**MPL__Z_U-000E - MPL__Z_R-000E**
1000 V - 69 A - 0.5÷25 mm²
**MPL__D_U**
630 V - 101 A - 0.5÷25 mm²
**MPL__D_U-000E**
630 V - 85 A - 0.5÷25 mm²
**MPL__D_R**
1000 V - 101 A - 0.5÷25 mm²
**MPL__D_R-000E**
1000 V - 85 A - 0.5÷25 mm²

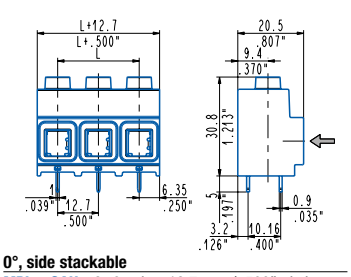
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

A higher number of poles is obtained by combining together **modular** parts.



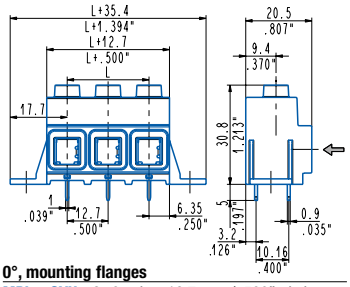
**0°, modular**
**MPL__SMU** - 2÷6 poles, 12.7 mm / .500" pitch
**MPL__SMU-000E** 2÷6 poles, 12.7 / mm .500" pitch

**-000E** = Low current version



**0°, side stackable**
**MPL__SAU** - 2÷6 poles, 12.7 mm / .500" pitch
**MPL__SAU-000E** 2÷6 poles, 12.7 / mm .500" pitch

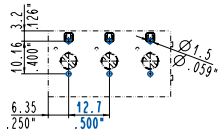
**-000E** = Low current version

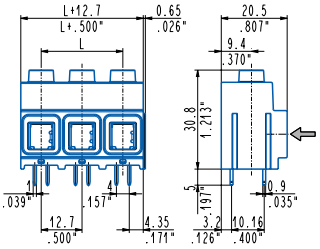


**0°, mounting flanges**
**MPL__SVU** - 2÷6 poles, 12.7 mm / .500" pitch
**MPL__SVU-000E** 2÷6 poles, 12.7 / mm .500" pitch

**-000E** = Low current version

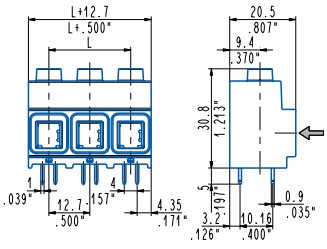
PCB layout "**S**" version





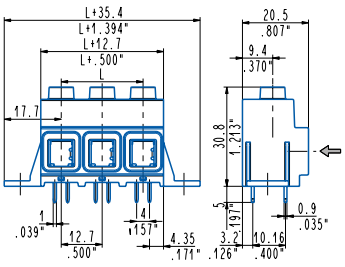
**0°, modular**
**MPL__ZMU** - 2÷6 poles, 12.7 mm / .500" pitch
**MPL__ZMU-000E** 2÷6 poles, 12.7 mm / .500" pitch

**-000E** = Low current version



**0°, side stackable**
**MPL__ZAU** - 2÷6 poles, 12.7 mm / .500" pitch
**MPL__ZAU-000E** 2÷6 poles, 12.7 mm / .500" pitch

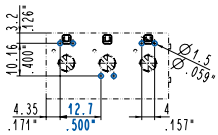
**-000E** = Low current version



**0°, mounting flanges**
**MPL__ZVU** - 2÷6 poles, 12.7 mm / .500" pitch
**MPL__ZVU-000E** 2÷6 poles, 12.7 mm / .500" pitch

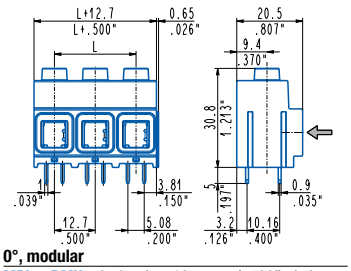
**-000E** = Low current version

PCB layout "**Z**" version



L = pitch x (poles - 1)

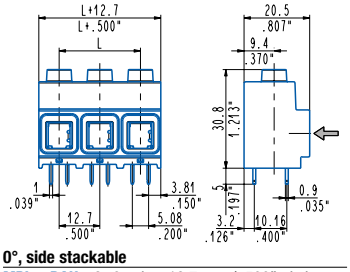
The drawing refers to only a pitch, please see our complete range of products by visiting our website on **www.sauro.net** or refering to your representative Sales Manager



**0°, modular**

**MPL__DMU** - 2÷6 poles, 12.7 mm / .500” pitch
**MPL__DMU-000E** 2÷6 poles, 12.7 mm / .500” pitch

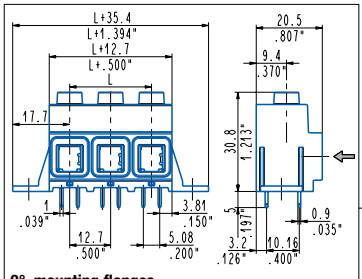
**-000E** = Low current version



**0°, side stackable**

**MPL__DAU** - 2÷6 poles, 12.7 mm / .500” pitch
**MPL__DAU-000E** 2÷6 poles, 12.7 mm / .500” pitch

**-000E** = Low current version

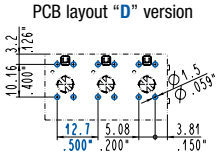


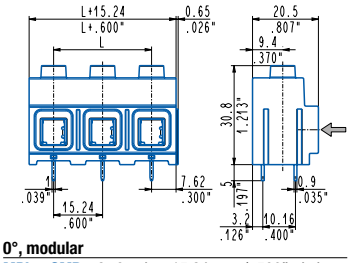
**0°, mounting flanges**

**MPL__DVU** - 2÷6 poles, 12.7 mm / .500” pitch
**MPL__DVU-000E** 2÷6 poles, 12.7 / mm .500” pitch

**-000E** = Low current version

PCB layout **“D”** version

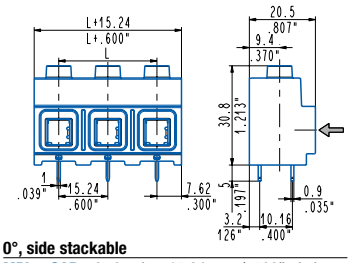




**0°, modular**

**MPL__SMR** - 2÷6 poles, 15.24 mm / .500” pitch
**MPL__SMR-000E** 2÷6 poles 15.24 mm .500” pitch

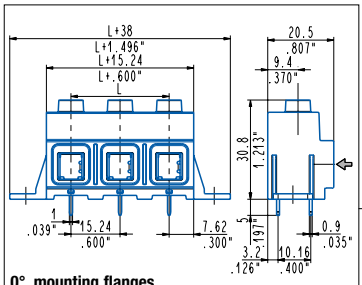
**-000E** = Low current version



**0°, side stackable**

**MPL__SAR** - 2÷6 poles, 15.24 mm / .500” pitch
**MPL__SAR-000E** 2÷6 poles 15.24 mm .500” pitch

**-000E** = Low current version

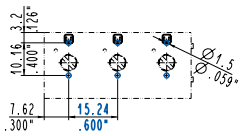


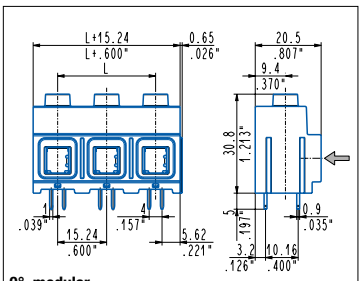
**0°, mounting flanges**

**MPL__SVR** - 2÷6 poles, 15.24 mm / .500” pitch
**MPL__SVR-000E** 2÷6 poles 15.24 mm .500” pitch

**-000E** = Low current version

PCB layout **“S”** version

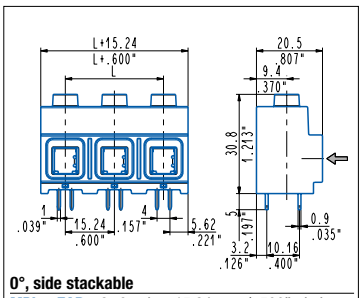




**0°, modular**

**MPL__ZMR** - 2÷6 poles, 15.24 mm / .500” pitch
**MPL__ZMR-000E** 2÷6 poles 15.24 mm .500” pitch

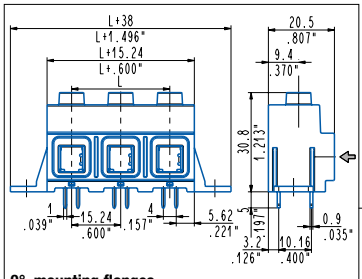
**-000E** = Low current version



**0°, side stackable**

**MPL__ZAR** - 2÷6 poles, 15.24 mm / .500” pitch
**MPL__ZAR-000E** 2÷6 poles 15.24 mm .500” pitch

**-000E** = Low current version

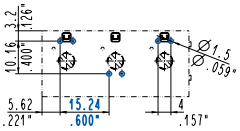


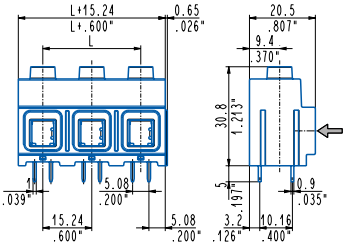
**0°, mounting flanges**

**MPL__ZVR** - 2÷6 poles, 15.24 mm / .500” pitch
**MPL__ZVR-000E** 2÷6 poles 15.24 mm .500” pitch

**-000E** = Low current version

PCB layout **“Z”** version

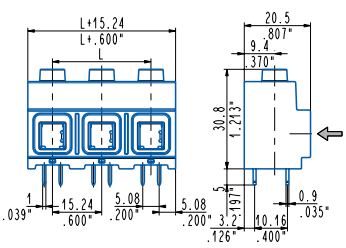




**0°, modular**

**MPL__DMR** - 2÷6 poles, 15.24 mm / .500” pitch
**MPL__DMR-000E** 2÷6 poles 15.24 mm .500” pitch

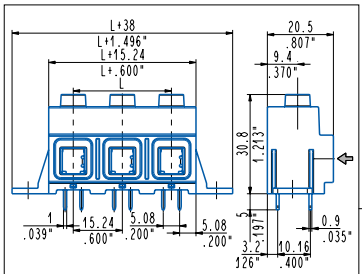
**-000E** = Low current version



**0°, side stackable**

**MPL__DAR** - 2÷6 poles, 15.24 mm / .500” pitch
**MPL__DAR-000E** 2÷6 poles 15.24 mm .500” pitch

**-000E** = Low current version

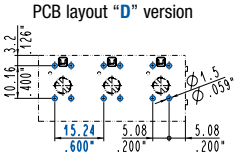


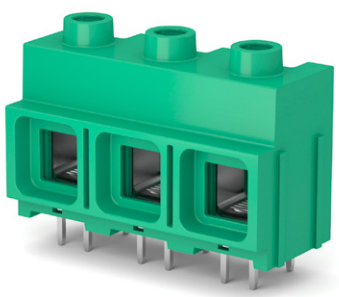
**0°, mounting flanges**

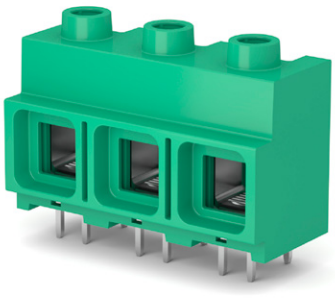
**MPL__DVR** - 2÷6 poles, 15.24 mm / .500” pitch
**MPL__DVR-000E** 2÷6 poles 15.24 mm .500” pitch

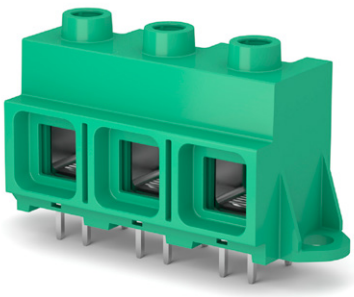
**-000E** = Low current version

PCB layout **“D”** version

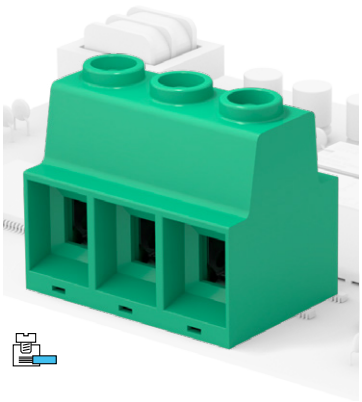








# MPP



# MPPH

**STH** for reflow soldering

**MSL1**

Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | high |
| **Standard colour:** | green |
| **Pitches:** | metric 15 mm (.591 in) |
| **Screw dimension:** | M5 |
| **Recommended/highest tightening torque:** | 2.1/2.5 Nm (18.59/22.13 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.6 mm (.063 in) |
| **Stripping length:** | 18 mm (.71 in) |
| **Operating temperature range** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | $>10^9$ Ω (500V DC) |

## Certifications

135 A

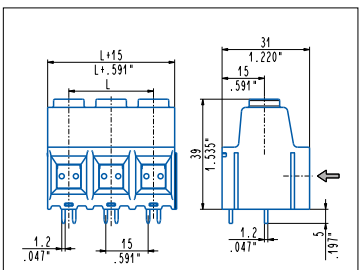
**UL (n. E167473)**
600 V - 135 A factory wiring (130 A field wiring) - 20÷1 AWG

## Data according to

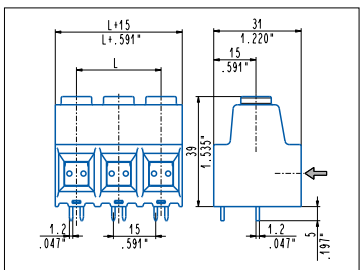
**IEC EN 60947-7-4**
1000 V - 125 A - 35 mm²

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

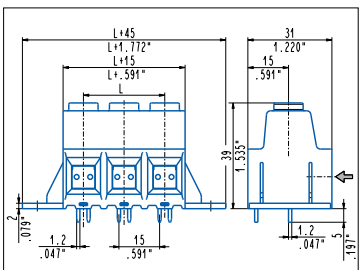
A higher number of poles is obtained by combining together **modular** parts.



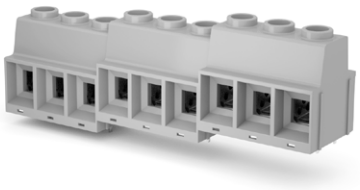

**0°, modular**
**MPP__DOQ** 2÷8 poles, 15 mm .591" pitch
**MPPH__DOQ-0N** 2÷8 poles, 15 mm .591" pitch

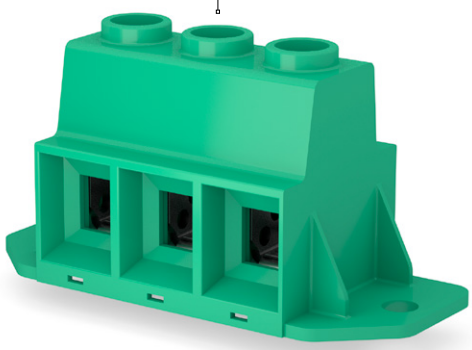



**0°, side stackable**
**MPP__DAQ** 2÷8 poles, 15 mm .591" pitch
**MPPH__DAQ-0N** 2÷8 poles, 15 mm .591" pitch




**0°, mounting flanges**
**MPP__DVQ** 1÷8 poles, 15 mm .591" pitch
**MPPH__DVQ-0N** 1÷8 poles, 15 mm .591" pitch





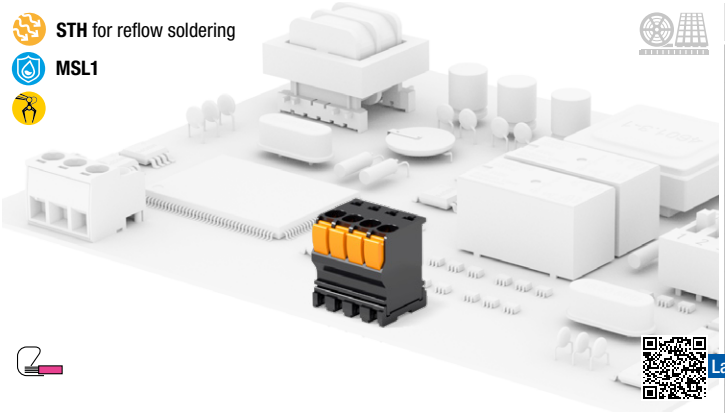
L = pitch x (poles - 1)

The drawing refers to only a pitch, please see our complete range of products by visiting our website on **www.sauro.net** or refering to your representative Sales Manager

# MMTH

**STH** for reflow soldering

**MSL1**



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | black |
| **Pitches:** | metric 3.5 mm, 7 mm (.138 in, .276 in)<br>imperial 3.81 mm, 7.62 mm (.150 in, .300 in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.4 mm (.055 in) |
| **Stripping length:** | 9 ÷ 10 mm (.41 ÷ .45 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **STH operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance**: | $>10^9$ Ω (500V DC) |

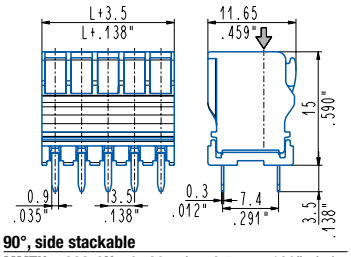
## Certifications

**UL (n. E167473)**
300 V - 9 A - 30÷16 AWG for 3.5 mm, 3.81 mm, 7 mm and 7.62 mm pitch

## Data according to

**IEC EN 60947-7-4**
130 V - 10 A - 1.5 $mm^2$ solid and stranded for 3.5 mm and 3.81 mm pitch
750 V - 10 A - 1.5 $mm^2$ solid and stranded for 7 mm and 7.62 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.




**90°, side stackable**
**MMTH__008-0N** - 2÷20 poles, 3,5 mm .138" pitch
**MMTH__009-0N** - 2÷10 poles, 7 mm .276" pitch
**MMTH__00T-0N** - 2÷16 poles, 3.81 mm .150" pitch
**MMTH__007-0N** - 2÷8 poles, 7.62 mm .300" pitch

# MCB

Traditional for wave soldering

Height = **8 mm / 0.315"**

# MCBH

**STH** for reflow soldering

**MSL1**

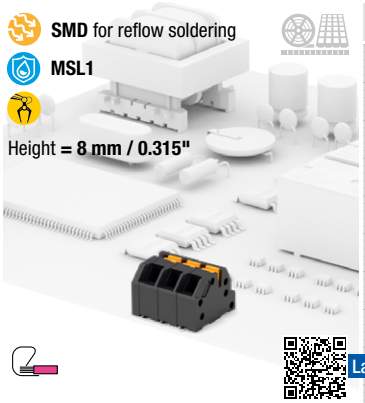
Height = **8 mm / 0.315"**

# MCBD SMD TECHNOLOGY

**SMD** for reflow soldering

**MSL1**

Height = **8 mm / 0.315"**



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | green for wave soldering, black for reflow soldering |
| **Pitches:** | metric 3.5, 5, 7, 10 mm (.138, .197, .276 ,394 in) |
| **PCB thickness:** | max. 1.6 mm (.063 in) |
| **PCB hole diameter for pin:** | min. 1.1 mm (.043 in) |
| **PCB hole diameter for peg:** | 1.5 mm (.059 in) |
| **Stripping length:** | 8 mm (.315 in) |
| **Operating temperature range** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance**: | >$10^9$ Ω (500V DC) |

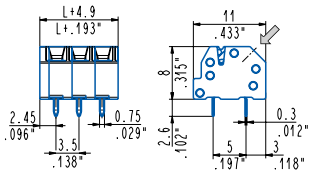
## Certifications

**UL (n. E167473)**
300 V - 8 A - 30÷16 AWG for 3.5 mm, 5 mm pitch
300 V - 8 A - 30÷16 AWG for 7 mm, 10 mm pitch

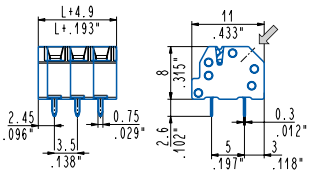
## Data according to

**IEC EN 60947-7-4**
150 V - 17.5 A - 1.5 mm² solid (13.5 A - 1 mm² stranded) for 3.5 mm
300 V - 17.5 A - 1.5 mm² solid (13.5 A - 1 mm² stranded) for 5 mm pitch
630 V - 17.5 A - 1.5 mm² solid (13.5 A - 1 mm² stranded) for 7 mm pitch
1000 V - 17.5 A - 1.5 mm² solid (13.5 A - 1 mm² stranded) for 10 mm pitch

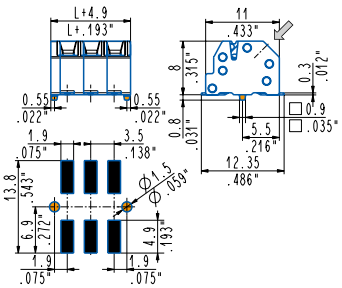
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.




**45°**
**MCB__408** - 2÷12 poles, 3,5 mm \ .138" pitch
**MCB__401** - 2÷12 poles, 5 mm \ .197" pitch
**MCB__409** - 2÷6 poles, 7 mm \ .276" pitch
**MCB__402** - 2÷6 poles, 10 mm \ .394" pitch




**45°**
**MCBH__408-0N** - 2÷12 poles, 3,5 mm .138" pitch
**MCBH__401-0N** - 2÷12 poles, 5 mm .197" pitch
**MCBH__409-0N** - 2÷6 poles, 7 mm .276" pitch
**MCBH__402-0N** - 2÷6 poles, 10 mm .394" pitch

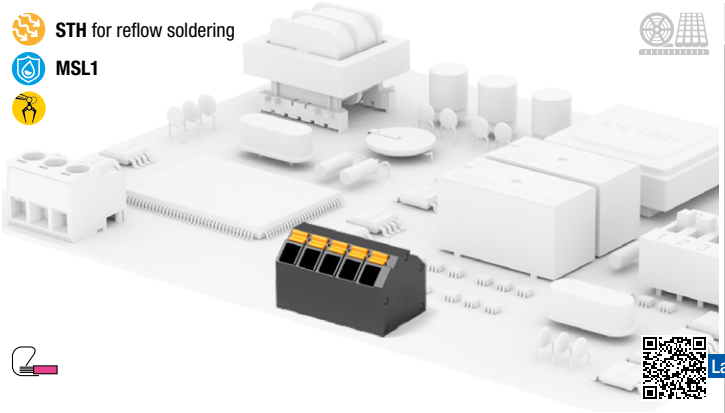



**45°**, pegs SMD TECHNOLOGY
**MCBD__408-0N00P** 2÷12 poles 3,5 mm .138" pitch
**MCBD__401-0N00P** 2÷12 poles 5 mm .197" pitch
**MCBD__409-0N00P** 2÷6 poles 7 mm .276" pitch
**MCBD__402-0N00P** 2÷6 poles 10 mm .394" pitch
*Fixing and positioning pegs

# MCCH

**STH** for reflow soldering

**MSL1**



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | black |
| **Pitches:** | imperial 3.81, 5.08, 7.62, 10.16 mm (.150, .200, .300, .400 in) |
| **PCB thickness:** | max. 1.6 mm (.063 in) |
| **PCB hole diameter:** | min. 1.1 mm (.043 in) |
| **Stripping length:** | 10 mm (.39 in) |
| **Operating temperature range** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance**: | >$10^9$ Ω (500V DC) |

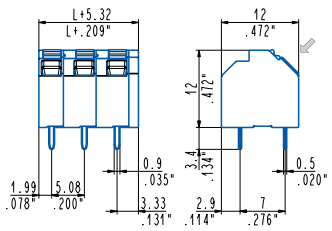
## Certifications

**UL (n. E167473)**
300 V - 10 A - 30÷16 AWG for 3.81, 5.08, 7.62 mm pitch
600 V - 10 A - 30÷16 AWG for 10.16 mm pitch

## Data according to

**IEC EN 60947-7-4**
300 V - 17.5 A - 1.5 $mm^2$ for 3.5 mm pitch
600 V - 17.5 A - 1.5 $mm^2$ for 5.08 mm, 7.62 mm and 10.16 mm pitch

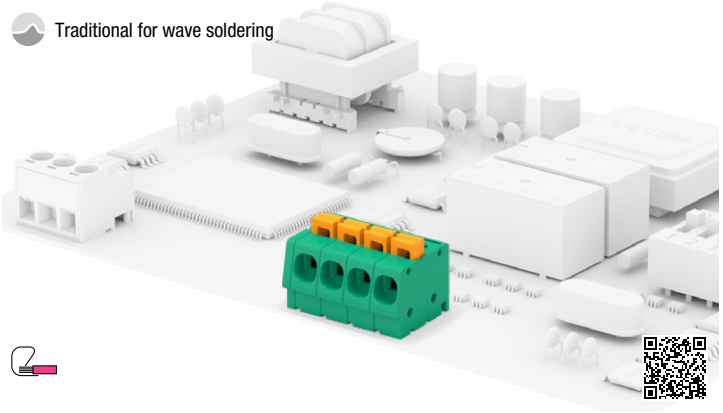
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.




**45°**

**MCCH__40T-0N** - 2÷12 poles, 3.81 mm .150" pitch
**MCCH__405-0N** - 2÷12 poles, 5.08 mm / .200" pitch
**MCCH__407-0N** - 2÷6 poles, 7.62 mm .300" pitch
**MCCH__406-0N** - 2÷6 poles, 10.16 mm / .400" pitch

Traditional for wave soldering



## General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 7.5 mm, 10 mm (.197 in, .295 in, .394 in)<br>imperial 5.08 mm, 7.62 mm 10.16 mm (.200 in, .300 in, .400 in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.2 mm (.047 in) |
| **Stripping length:** | 10÷11 mm (.394 in /.433 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**

300 V - 16 A - 30÷12 AWG for 5 mm, 5.8 mm, 7.5 mm, 7.62 mm pitch
600 V - 16 A - 30÷12 AWG for 10 mm, 10.16 mm pitch

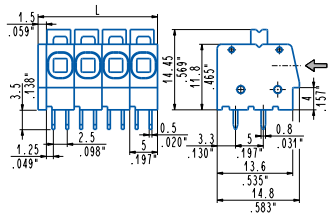
**VDE (n. 40029775)**

250 V - 16 A - 2.5 mm² for 5 mm, 5.8 mm pitch
750 V - 16 A - 2.5 mm² for 7.5 mm, 7.62 mm, 10 mm, 10.16 mm pitch

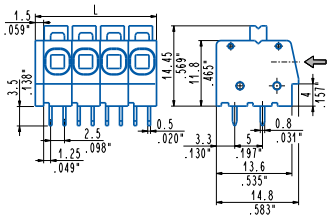
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

A higher number of poles is obtained by combining together **modular** parts.

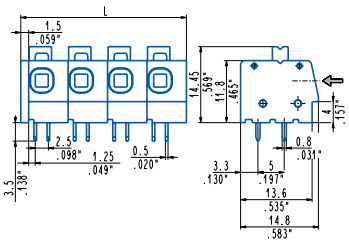
"**E**" In the part number means that 16 A can be used with a 2.5 mm² wire cross section. Without "**E**" in the part number means that 16 A is usable even with a 1.5 mm² wire cross section.



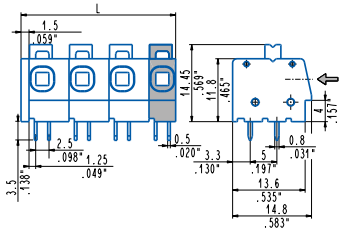
**0°, not side stackable**
**MCM__001** - 2÷25 poles, 5 mm / .197" pitch
**MCM__E01** - 2÷25 poles, 5 mm / .197" pitch
L = (pitch x poles)+1.5 mm
L = (pitch x poles)+0.059"



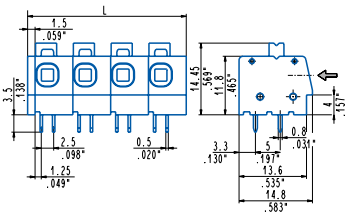
**0°, not side stackable**
**MCM__005** - 2÷25 poles, 5.08 mm / .200" pitch
**MCM__E05** - 2÷25 poles, 5.08 mm / .200" pitch
L = (pitch x poles)+1.5 mm
L = (pitch x poles)+0.059"



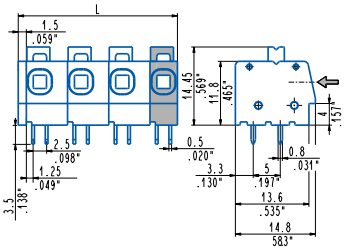
**0°,0 not side stackable**
**MCM__0A3** - 2÷12 poles, 7.5 mm / .295" pitch
**MCM__EA3** - 2÷12 poles, 7.5 mm / .295" pitch
L = pitch x (poles - 1)+7.5 mm+1.5 mm
L = pitch x (poles - 1)+0.295"+0.059"



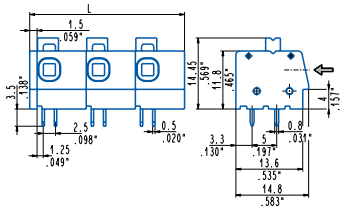
**0°, compact, not side stackable**
**MCM__003** - 2÷12 poles, 7.5 mm / .295" pitch
**MCM__E03** - 2÷12 poles, 7.5 mm / .295" pitch
L = pitch x (poles - 1)+5 mm+1.5 mm
L = pitch x (poles - 1)+0.197"+0.059"



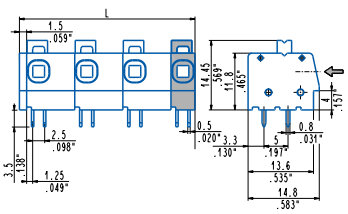
**0°, not side stackable**
**MCM__0A7** - 2÷12 poles, 7.62 mm / .300" pitch
**MCM__EA7** - 2÷12 poles, 7.62 mm / .300" pitch
L = pitch x (poles - 1)+7.62 mm+1.5 mm
L = pitch x (poles - 1)+0.300"+0.059"



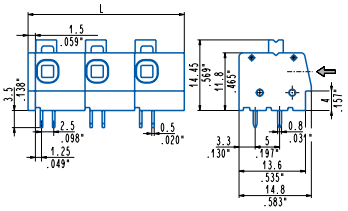
**0°, compact, not side stackable**
**MCM__007** - 2÷12 poles, 7.62 mm / .300" pitch
**MCM__E07** - 2÷12 poles, 7.62 mm / .300" pitch
L = pitch x (poles - 1)+5.08 mm+1.5 mm
L = pitch x (poles - 1)+0.200"+0.059"



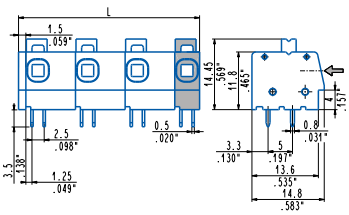
**0°, not side stackable**
**MCM__0A2** - 2÷13 poles, 10 mm / .394" pitch
**MCM__EA2** - 2÷13 poles, 10 mm / .394" pitch
L = pitch x (poles - 1)+10 mm+1.5 mm
L = pitch x (poles - 1)+0.394"+0.059"



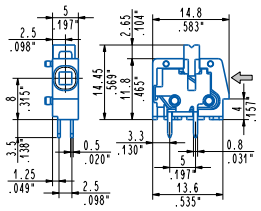
**0°, compact, not side stackable**
**MCM__002** - 2÷13 poles, 10 mm / .394" pitch
**MCM__E02** - 2÷13 poles, 10 mm / .394" pitch
L = pitch x (poles - 1)+5 mm+1.5 mm
L = pitch x (poles - 1)+0.197"+0.059"



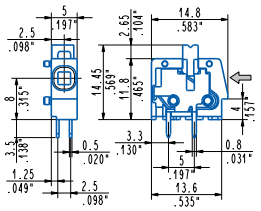
**0°, not side stackable**
**MCM__0A6** - 2÷13 poles, 10.16 mm / .400" pitch
**MCM__EA6** - 2÷13 poles, 10.16 mm / .400" pitch
L = pitch x (poles - 1)+10.16 mm+1.5 mm
L = pitch x (poles - 1)+0.400"+0.059"



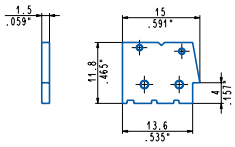
**0°, compact, not side stackable**
**MCM__006** - 2÷13 poles, 10.16 mm / .400" pitch
**MCM__E06** - 2÷13 poles, 10.16 mm / .400" pitch
L = pitch x (poles - 1)+5.08 mm+1.5 mm
L = pitch x (poles - 1)+0.200"+0.059"



**0°, modular**
**MCM__0M1** - 1 pole, 5 mm / .197" pitch
**MCM__0M3** - 1 pole, 7.5 mm / .295" pitch
**MCM__0M2** - 1 pole, 10 mm / .394" pitch
**MCM__0M5** - 1 pole, 5.08 mm / .200" pitch
**MCM__0M7** - 1 pole, 7,62 mm / .300" pitch
**MCM__0M6** - 1 pole, 10.16 mm / .400" pitch



**0°, modular**
**MCM__EM1** - 1 pole, 5 mm / .197" pitch
**MCM__EM3** - 1 pole, 7.5 mm / .295" pitch
**MCM__EM2** - 1 pole, 10 mm / .394" pitch
**MCM__EM5** - 1 pole, 5.08 mm / .200" pitch
**MCM__EM7** - 1 pole, 7,62 mm / .300" pitch
**MCM__EM6** - 1 pole, 10.16 mm / .400" pitch



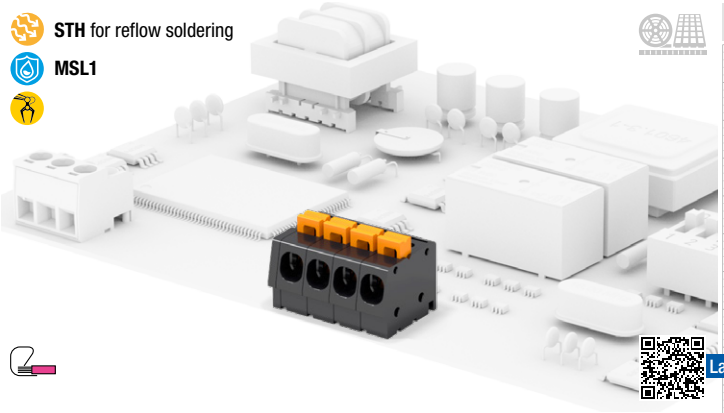
**Terminal plate**
**MCM000M0**

L = pitch x (poles - 1)

The drawing refers to only a pitch, please see our complete range of products by visiting our website on **www.sauro.net** or refering to your representative Sales Manager

**STH** for reflow soldering

**MSL1**



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | black |
| **Pitches:** | imperial 5.08 mm (.200 in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.4 mm (.055 in) |
| **Stripping length:** | 10÷11 mm (.394 in /.433 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**
300 V - 16 A - 30÷12 AWG

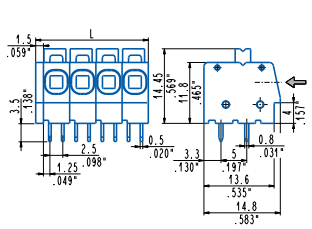
## Data according to

**IEC EN 60947-7-4**
250 V - 16 A - T110 - 2.5 mm²

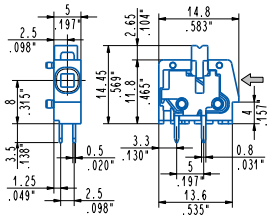
Application values for end-use equipment have to be in accordance to norms applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

A higher number of poles is obtained by combining together **modular** parts.

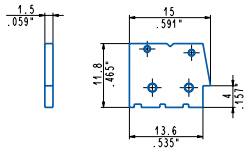
"**E**" In the part number means that 16 A can be used with a 2.5 mm² wire cross section. Without "**E**" in the part number means that 16 A is usable even with a 1.5 mm² wire cross section.



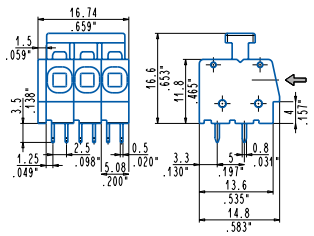
**0°, not side stackable**
**MCMH__005-0N** 2÷12 poles, 5.08 mm/.200" pitch
**MCMH__E05-0N** 2÷12 poles, 5.08 mm/.200" pitch
L = (pitch x poles)+1.5 mm
L = (pitch x poles)+0.059"



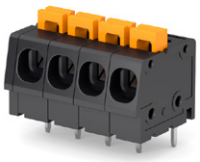
**0°, modular**
**MCMH__0M5-0N** - 1 pole, 5.08 mm / .200" pitch
**MCMH__EM5-0N** - 1 pole, 5.08 mm / .200" pitch



**Terminal plate**
**MCMH000M0-0N**

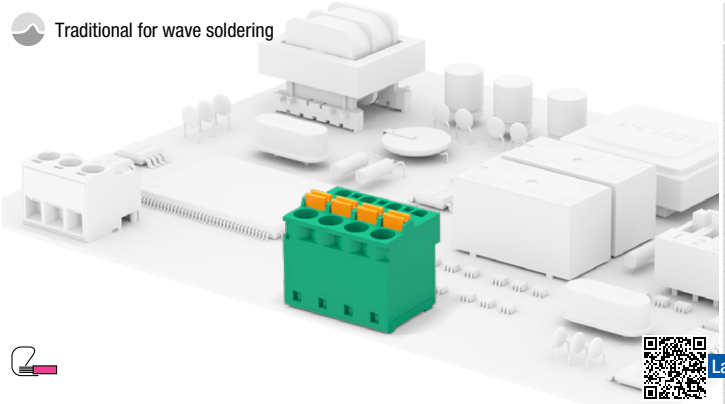


**0°, not side stackable**
**MCMH03E05-0NU -** 3 poles, 5.08 mm .200" pitch



# MCQ

Traditional for wave soldering



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | high |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 10 mm (.197 in, .394 in)<br>imperial 5.08 mm, 10.16 mm (.200 in, .400 in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.4 mm (.055 in) |
| **Stripping length:** | 10 mm (.39 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >109 Ω (500V DC) |

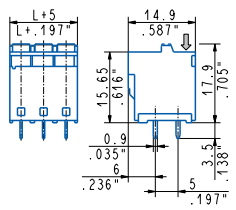
## Certifications

**UL (n. E167473)**
300 V - 16 A - 30÷12 AWG for 5 mm, 5.08 mm pitch
600 V - 16 A - 30÷12 AWG for 10 mm and 10.16 mm pitch

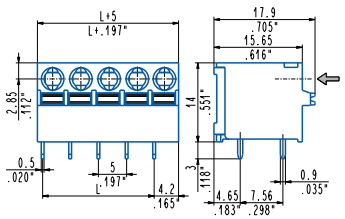
## Data according to

**IEC EN 60947-7-4**
250 V - 12 A - 2.5 mm² for 5 mm and 5.08 mm pitch
750 V - 12 A - 2.5 mm² for 10 mm and 10.16 mm pitch

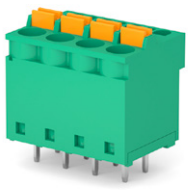
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

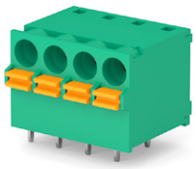



**90°, side stackable**
**MCQ__001** - 2÷18 poles, 5 mm / .197" pitch
**MCQ__002** - 2÷9 poles, 10 mm / .394" pitch
**MCQ__005** - 2÷5 poles, 5.08 mm / .300" pitch
**MCQ__006** - 2÷3 poles, 10.16 mm / .400" pitch




**0°, side stackable**
**MCQ__091** - 2÷8 poles, 5 mm / .197" pitch
**MCQ__092** - 2÷4 poles, 10 mm / .394" pitch
**MCQ__095** - 2÷5 poles, 5.08 mm / .300" pitch
**MCQ__096** - 2÷3 poles, 10.16 mm / .400" pitch



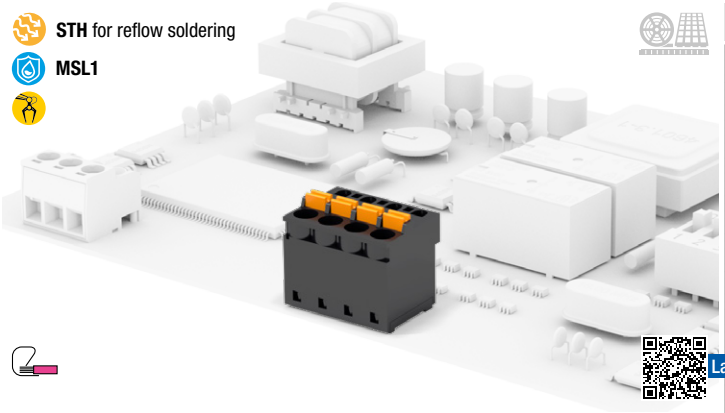


L = pitch x (poles - 1)

The drawing refers to only a pitch, please see our complete range of products by visiting our website on **www.sauro.net** or refering to your representative Sales Manager

**STH** for reflow soldering

**MSL1**



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | high |
| **Standard colour:** | black |
| **Pitches:** | metric 5 mm, 10 mm (.197 in, .394 in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.4 mm (.055 in) |
| **Stripping length:** | 10 mm (.39 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >109 Ω (500V DC) |

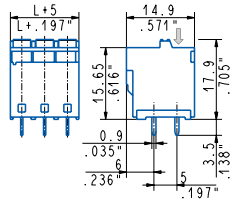
## Certifications

**UL (n. E167473)**
300 V - 16 A -30÷12 AWG for 5 mm pitch
600 V - 16 A - 30÷12 AWG for 10 mm pitch

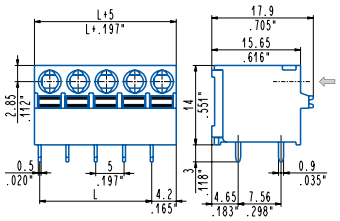
## Data according to

**IEC EN 60947-7-4**
250 V - 12 A - 2.5 mm² for 5 mm pitch
750 V - 12 A - 2.5 mm² for 10 mm pitch

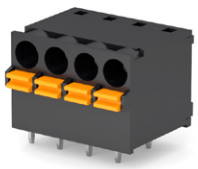
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.




**90°, side stackable**
**MCQH__001-0N** 2÷10 poles, 5 mm / .197" pitch
**MCQH__002-0N** 2÷6 poles, 10 mm / .394" pitch
**MCQH__005-0N** 2÷5 poles, 5.08 mm / .300" pitch
**MCQH__006-0N** 2÷3 poles, 10.16 mm / .400" pitch

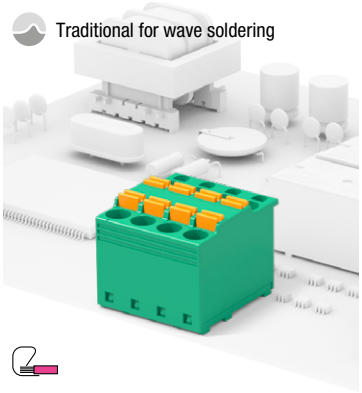



**0°, side stackable**
**MCQH__091-0N** 2÷8 poles, 5 mm / .197" pitch
**MCQH__092-0N** 2÷4 poles, 10 mm / .394" pitch
**MCQH__095-0N** 2÷5 poles, 5.08 mm / .300" pitch
**MCQH__096-0N** 2÷3 poles, 10.16 mm / .400" pitch



# MCQ DOUBLE

Traditional for wave soldering



# MCQH DOUBLE

**STH** for reflow soldering

**MSL1**

Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | high |
| **Standard colour:** | green for wave soldering, black for reflow soldering |
| **Pitches:** | metric 5 mm, 10 mm (.197 in, .394 in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.4 mm (.055 in) |
| **Stripping length:** | 10 mm (.39 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **STH operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >109 Ω (500V DC) |

## Data according to

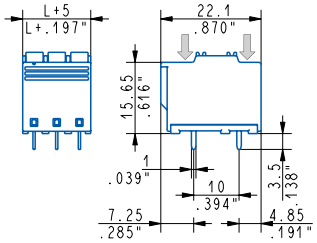
**UL 1059**

300 V - 16 A -30÷12 AWG stranded for 5 mm pitch
600 V - 16 A - 30÷12 AWG stranded for 10 mm pitch

**IEC EN 60947-7-4**

250 V - 12 A - 2.5 mm² for 5 mm pitch
750 V - 12 A - 2.5 mm² for 10 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.




**90°, side stackable**

**MCQ__D01** - 2÷6 poles, 5 mm / .197" pitch
**MCQ__D02** - 2÷3 poles, 10 mm / .394" pitch
**MCQH__D01-0N** - 2÷6 poles, 5 mm / .197" pitch
**MCQH__D02-0N** - 2÷3 poles, 10 mm / .394" pitch

L = pitch x (poles - 1)

Clamp technology

Spring technology

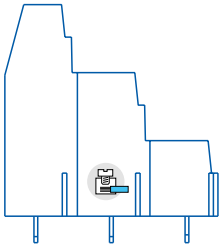
drawings are in 1.1 scale

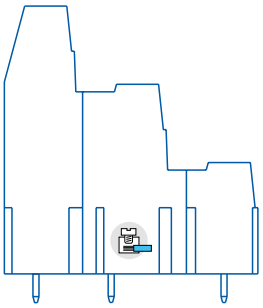
# Plurima®

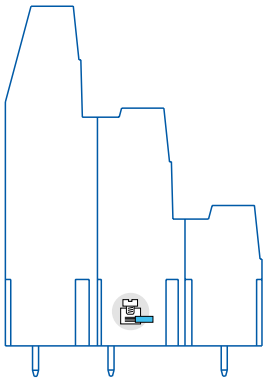
## Multi-level terminal blocks


| | |
|---|---|
| **PSB** | 44 |
| **PSM** | 45 |
| **PSQ** | 46 |

Traditional for wave soldering | **STH** for reflow soldering | Suitable for reflow soldering | Pick and place system | **MSL1** | For resined PCBs







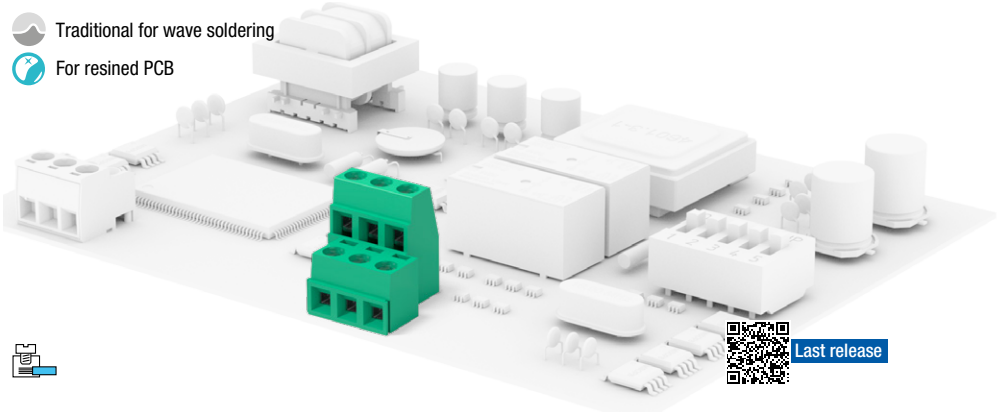
| Serie | | | PSB | PSM | PSQ |
|---|---|---|---|---|---|
| Height | | | 28 mm/1.102 in | 35.6 mm/1.402 in | 45 mm/1.772 in |
| Pitch mm/in. | 2.54 | .100 | | | |
| | 3.5 | .138 | | | |
| | 3.81 | .150 | | | |
| | 5 | .197 | x | x | x |
| | 5.08 | .200 | x | x | x |
| | 6.35 | .250 | | | |
| | 7 | .276 | | | |
| | 7.5 | .295 | | | |
| | 7.62 | .300 | | | |
| | 9.52 | .375 | | | |
| | 10 | .394 | • | • | • |
| | 10.16 | .400 | • | • | • |
| | 12.7 | .500 | | | |
| | 15 | .591 | | | |
| Wire section mm² | | | 0.05÷1.5 | 0.05÷2.5 | 0.05÷4 |
| Wire section AWG | | | 30÷16 | 30÷12 | 30÷12 |
| Rated current | | | 17.5 A | 24 A | 32 A |
| Rated voltage | | | 300 V (x)<br>750 V (•) | 300 V (x)<br>750 V (•) | 300 V (x)<br>750 V (•) |
| Soldering type | | | | | |

# PSB

Plurima®

Traditional for wave soldering

For resined PCB



Last release

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 10 mm (.197 in, .394 in)<br>imperial 5.08 mm, 10.16 mm (.200 in, .400 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5/0.6 Nm (4.42/5.31 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.2 mm (.047 in) |
| **Stripping length:** | 5 ÷ 6 mm (.197 ÷ .24 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**
300 V - 13.5 A (factory wiring), 10 A (field wiring)- 30÷16 AWG - for 5 mm, 5.08 mm
600 V - 13.5 A (factory wiring), 10 A (field wiring)- 30÷16 AWG - for 10 mm and 10.16 mm pitch

**VDE (n. 40022743)**
250 V - 13.5 A (10 A for "T" and "K" versions) - 1 mm² for 5 mm and 5.08 mm pitch
750 V - 13.5 A (10 A for "T" and "K" versions) - 1 mm² for 10 mm and 10.16 mm pitch

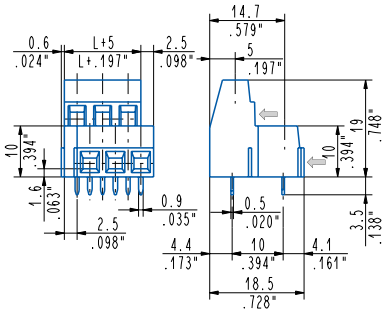
**IMQ (n. ED624)**
250 V - 17.5 A - 1.5 mm² solid (13.5 A - 1 mm² stranded) for 5 mm and 5.08 mm pitch
750 V - 17.5 A - 1.5 mm² solid (13.5 A - 1 mm² stranded) for 10 mm and 10.16 mm pitch

**CSA (n. LR102896)**
300 V - 13.5 A - 30÷15 AWG for 5 mm, 5.08 mm
600 V - 13.5 A - 30÷15 AWG for 10 mm and 10.16 mm pitch

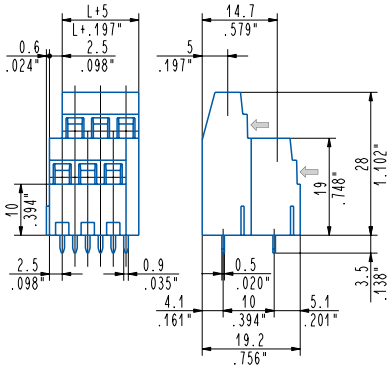
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

A higher number of poles is obtained by combining together **modular** parts.

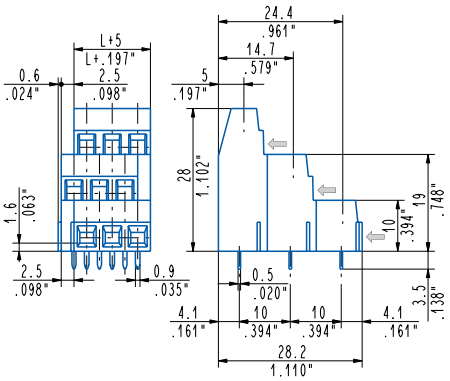
Please refer to your representative Sales Manager for any information about the **STH** version of this product.



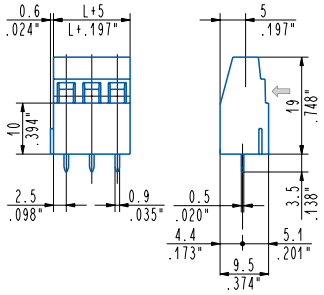

**1st & 2nd levels modular**
**PSB__0D1** - 2 ÷ 3 poles, 5 mm / .197" pitch
**PSB__0D2** - 1 ÷ 2 poles, 10 mm / .394" pitch
**PSB__0D5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**PSB__0D6** - 1 ÷ 2 poles, 10.16 mm / .400" pitch



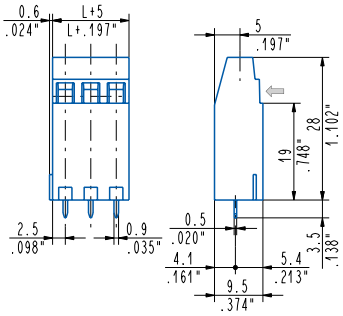

**2nd & 3rd levels modular**
**PSB__0K1** - 2 ÷ 3 poles, 5 mm / .197" pitch
**PSB__0K2** - 1 ÷ 2 poles, 10 mm / .394" pitch
**PSB__0K5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**PSB__0K6** - 1 ÷ 2 poles, 10.16 mm / .400" pitch



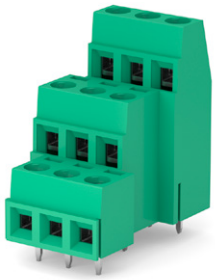

**3 levels modular**
**PSB__0T1** - 2 ÷ 3 poles, 5 mm / .197" pitch
**PSB__0T2** - 1 ÷ 2 poles, 10 mm / .394" pitch
**PSB__0T5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**PSB__0T6** - 1 ÷ 2 poles, 10.16 mm / .400" pitch

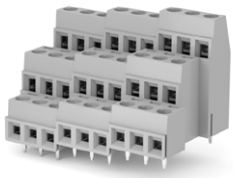



**Medium tower modular**
**PSB__0M1** - 2 ÷ 8 poles, 5 mm / .197" pitch
**PSB__0M2** - 1 ÷ 4 poles, 10 mm / .394" pitch
**PSB__0M5** - 2 ÷ 8 poles, 5.08 mm / .200" pitch
**PSB__0M6** - 1 ÷ 4 poles, 10.16 mm / .400" pitch




**High tower modular**
**PSB__0H1** - 2 ÷ 3 poles, 5 mm / .197" pitch
**PSB__0H2** - 1 ÷ 2 poles, 10 mm / .394" pitch
**PSB__0H5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**PSB__0H6** - 1 ÷ 2 poles, 10.16 mm / .400" pitch

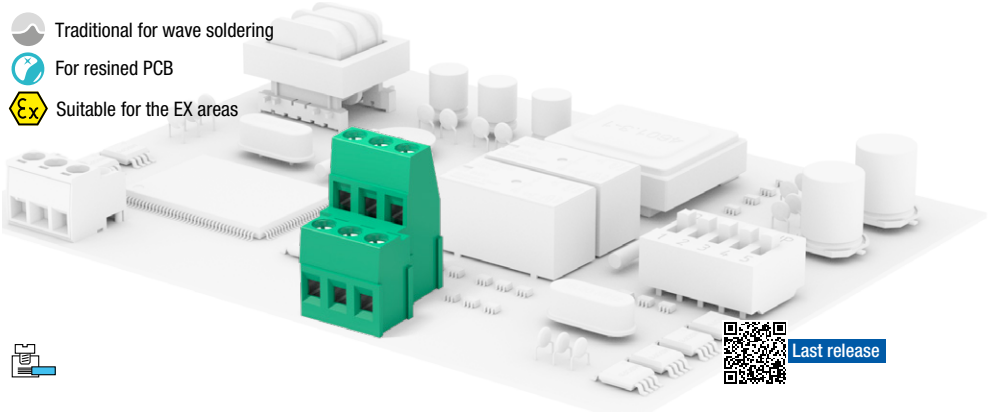




# PSM

Plurima®

Traditional for wave soldering
For resined PCB
Suitable for the EX areas



Last release

## General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 10 mm (.197 in, .394 in)<br>imperial 5.08 mm, 10.16 mm (.200 in, .400 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5/0.6 Nm (4.42/5.31 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.4 mm (.055 in) |
| **Stripping length:** | 5.5 ÷ 6.5 mm (.22 ÷ .26 in) |
| **Operating temperature range** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**
300 V - 17.5 A - 30÷12 AWG - for 5 mm, 5.08 mm pitch
600 V - 17.5 A - 30÷12 AWG - for 10 mm and 10.16 mm pitch

**VDE (n. 40022741)**
250 V - 24 A (20 A for "T" and "K" versions) - 2.5 mm² - for 5 mm and 5.08 mm pitch
750 V - 24 A (20 A for "T" and "K" versions) - 2.5 mm² - for 10 mm and 10.16 mm pitch

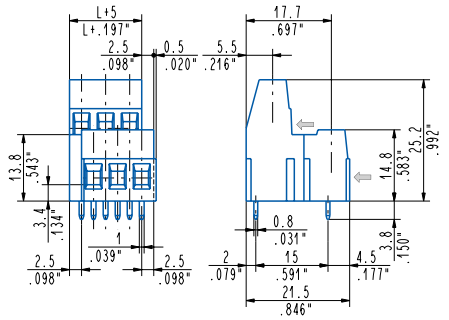
**IMQ (n. ED625)**
250 V - 24 A - 2.5 mm² - for 5 mm and 5.08 mm pitch
750 V - 24 A - 2.5 mm² - for 10 mm and 10.16 mm pitch

**CSA (n. LR102896)**
300 V - 17.5 A - 30÷12 AWG for 5 mm, 5.08 mm pitch
600 V - 17.5 A - 30÷12 AWG for 10 mm and 10.16 mm pitch

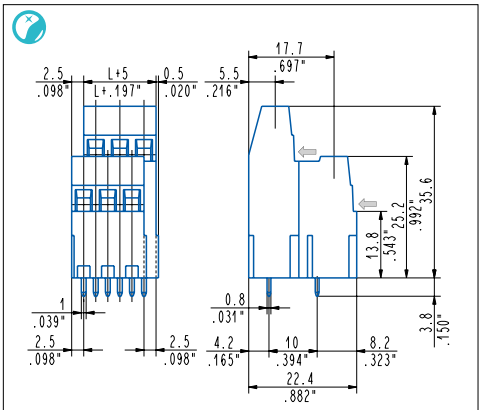
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

A higher number of poles is obtained by combining together **modular** parts.

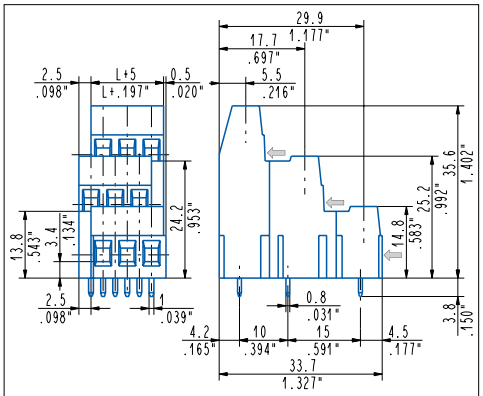
Please refer to your representative Sales Manager for any information about the **STH** version of this product.



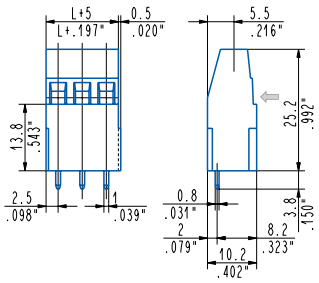
**1st & 2nd levels modular**
PSM__0D1 - 2 ÷ 3 poles, 5 mm / .197" pitch
PSM__0D2 - 1 ÷ 2 poles, 10 mm / .394" pitch
PSM__0D5 - 2 ÷ 3 poles, 5.08 mm / .200" pitch
PSM__0D6 - 1 ÷ 2 poles, 10.16 mm / .400" pitch



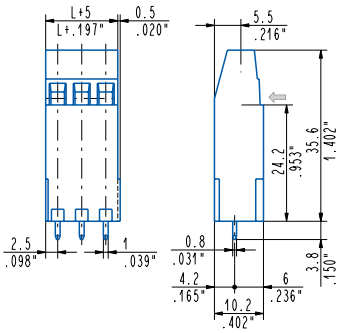
**2nd & 3rd levels modular**
PSM__0K1 - 2 ÷ 3 poles, 5 mm / .197" pitch
PSM__0K2 - 1 ÷ 2 poles, 10 mm / .394" pitch
PSM__0K5 - 2 ÷ 3 poles, 5.08 mm / .200" pitch
PSM__0K6 - 1 ÷ 2 poles, 10.16 mm / .400" pitch



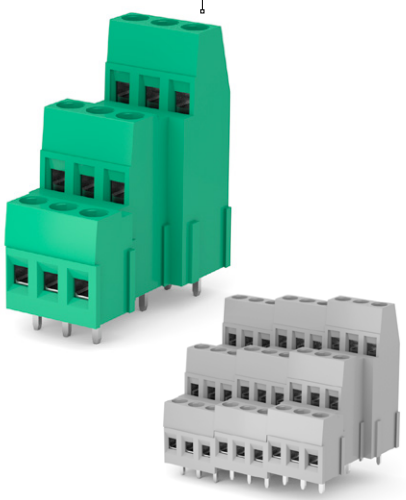
**3 levels modular**
PSM__0T1 - 2 ÷ 3 poles, 5 mm / .197" pitch
PSM__0T2 - 1 ÷ 2 poles, 10 mm / .394" pitch
PSM__0T5 - 2 ÷ 3 poles, 5.08 mm / .200" pitch
PSM__0T6 - 1 ÷ 2 poles, 10.16 mm / .400" pitch



**Medium tower modular**
PSM__0M1 - 2 ÷ 8 poles, 5 mm / .197" pitch
PSM__0M2 - 1 ÷ 4 poles, 10 mm / .394" pitch
PSM__0M5 - 2 ÷ 8 poles, 5.08 mm / .200" pitch
PSM__0M6 - 1 ÷ 4 poles, 10.16 mm / .400" pitch



**High tower modular**
PSM__0H1 - 2 ÷ 3 poles, 5 mm / .197" pitch
PSM__0H2 - 1 ÷ 2 poles, 10 mm / .394" pitch
PSM__0H5 - 2 ÷ 3 poles, 5.08 mm / .200" pitch
PSM__0H6 - 1 ÷ 2 poles, 10.16 mm / .400" pitch



L = pitch x (poles - 1)

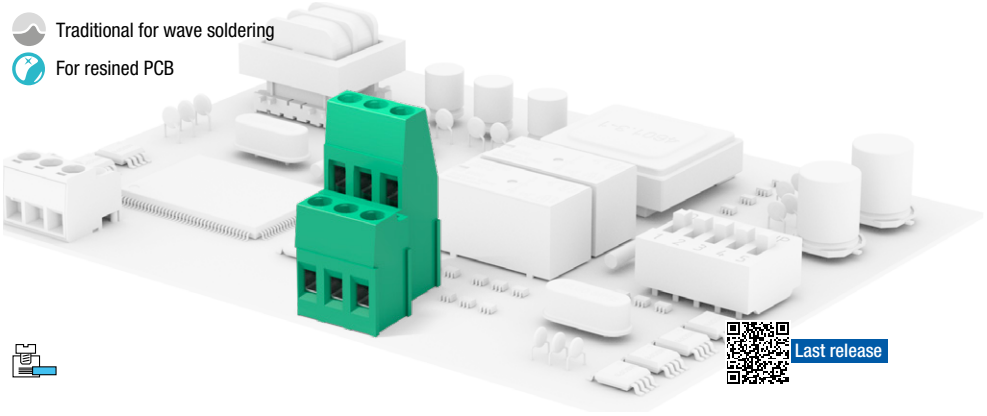
The drawing refers to only a pitch, please see our complete range of products by visiting our website on www.sauro.net or refering to your representative Sales Manager

# PSQ

Plurima®

Traditional for wave soldering

For resined PCB



Last release

## General data

| | |
|---|---|
| **Dimensional class:** | high |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 10 mm (.197 in, .394 in)<br>imperial 5.08 mm, 10.16 mm (.200 in, .400 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5/0.6 Nm (4.42/5.31 lbf·in) |
| **PCB thickness:** | max. 2.4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.4 mm (.055 in) |
| **Stripping length:** | 6.5 ÷ 7 mm (.26 ÷ .28 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**
300 V - 24 A (factory wiring), 20 A (field wiring) - 30÷12 AWG - for 5 mm, 5.08 mm pitch
600 V - 24 A (factory wiring), 20 A (field wiring) - 30÷12 AWG - for 10 mm and 10.16 mm pitch
Application values for end-use equipment have to be in accordance to UL norms and applicable to it.

**VDE (n. 40022743)**
250 V - 24 A (20 A - 1.5 mm² for "K" and "T" versions) - 2.5 mm² for 5 mm and 5.08 mm pitch
750 V - 24 A (20 A - 1.5 mm² for "K" and "T" versions) - 2.5 mm² for 10 mm and 10.16 mm pitch

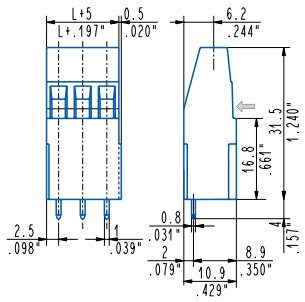
**IMQ (n. ED623)**
250 V - 32 A - 4 mm² solid (24 A - 2.5 mm² stranded) for 5 mm and 5.08 mm pitch
750 V - 32 A - 4 mm² solid (24 A - 2.5 mm² stranded) for 10 mm and 10.16 mm pitch

**CSA (n. LR102896)**
300 V - 24 A - 30÷11 AWG for 5 mm, 5.08 mm pitch
600 V - 24 A - 30÷11 AWG for 10 mm and 10.16 mm pitch

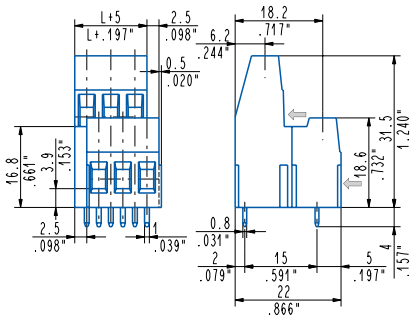
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

A higher number of poles is obtained by combining together **modular** parts.

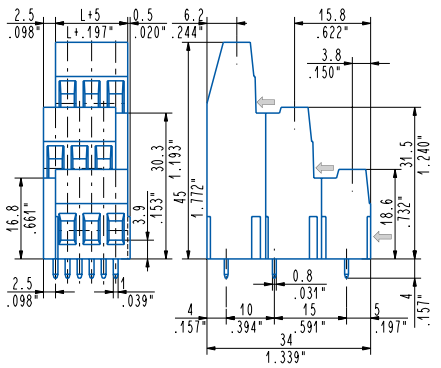
Please refer to your representative Sales Manager for any information about the **STH** version of this product.



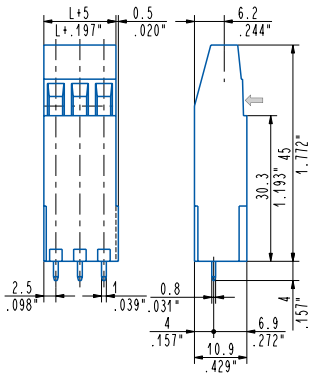
**Medium tower modular**
**PSQ__0M1** - 2 ÷ 8 poles, 5 mm / .197" pitch
**PSQ__0M2** - 1 ÷ 2 poles, 10 mm / .394" pitch
**PSQ__0M5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**PSQ__0M6** - 1 ÷ 2 poles, 10.16 mm / .400" pitch



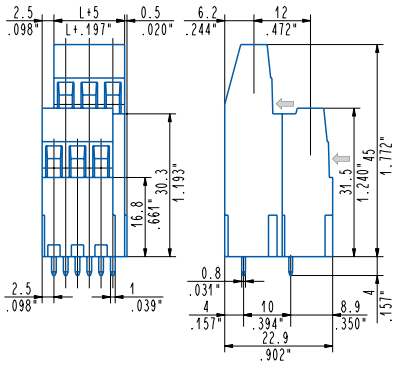
**1st & 2nd levels modular**
**PSQ__0D1** - 2 ÷ 3 poles, 5 mm / .197" pitch
**PSQ__0D2** - 1 ÷ 2 poles, 10 mm / .394" pitch
**PSQ__0D5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**PSQ__0D6** - 1 ÷ 2 poles, 10.16 mm / .400" pitch



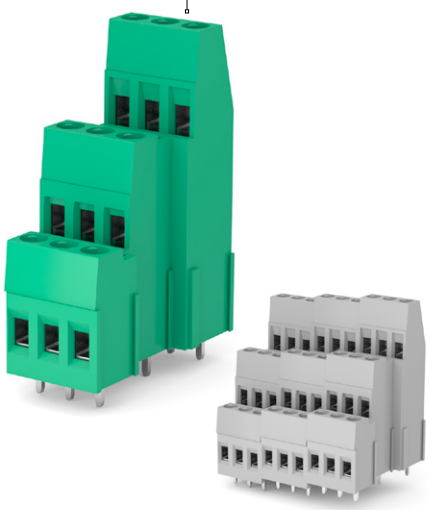
**3 levels modular**
**PSQ__0T1** - 2 ÷ 3 poles, 5 mm / .197" pitch
**PSQ__0T2** - 1 ÷ 2 poles, 10 mm / .394" pitch
**PSQ__0T5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**PSQ__0T6** - 1 ÷ 2 poles, 10.16 mm / .400" pitch



**High tower modular**
**PSQ__0H1** - 2 ÷ 3 poles, 5 mm / .197" pitch
**PSQ__0H2** - 1 ÷ 2 poles, 10 mm / .394" pitch
**PSQ__0H5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**PSQ__0H6** - 1 ÷ 2 poles, 10.16 mm / .400" pitch



**2nd & 3rd levels modular**
**PSQ__0K1** - 2 ÷ 3 poles, 5 mm / .197" pitch
**PSQ__0K2** - 1 ÷ 2 poles, 10 mm / .394" pitch
**PSQ__0K5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**PSQ__0K6** - 1 ÷ 2 poles, 10.16 mm / .400" pitch



Clamp technology
Board to board connection
Spring technology
Wire to wire connection

# Connectors


| | |
|---|---|
| CXF | 50 |
| CSF | 51 |
| CSM-CSMH | 52 |
| CSMD | 53 |
| CLF | 54 |
| CHF | 55 |
| CHF D. | 56 |
| CLMH | 57 |
| CTF | 58 |
| CKF | 59 |
| CFF | 60 |
| CBF | 61 |
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| CTM D.-CTMH D. | 65 |
| CIF | 66 |
| CVF | 67 |
| CCF | 68 |
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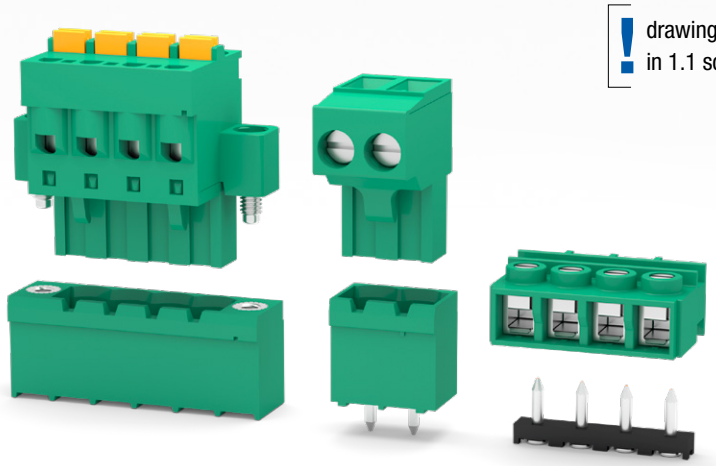
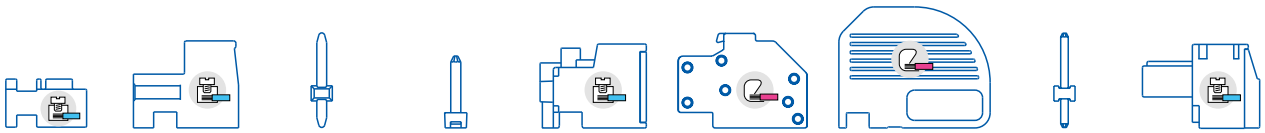
| CPM-CPMH | 76 |
| CRM | 77 |
| CIMH N. | 78 |
| CGM | 79 |
| CUF | 80 |

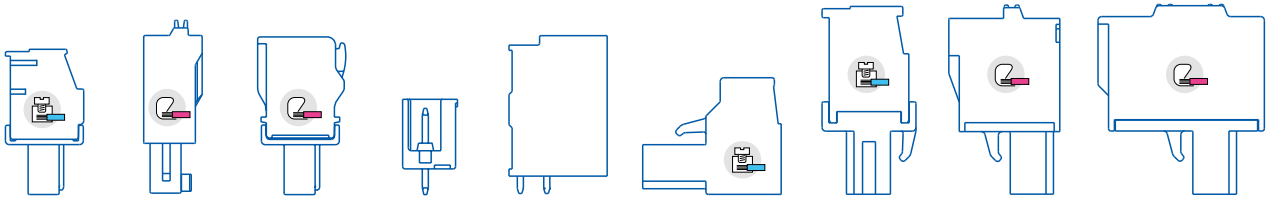


! drawings are in 1.1 scale

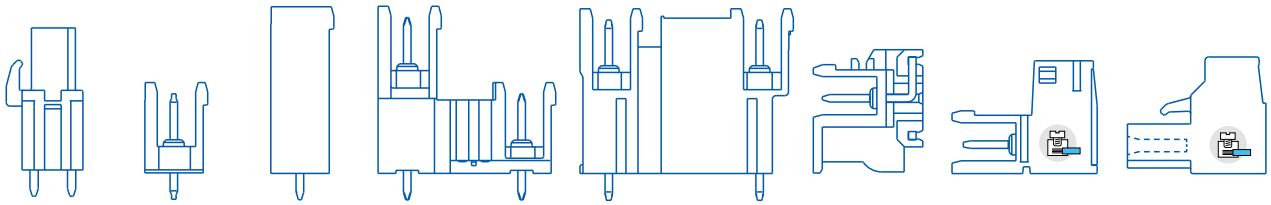
Traditional for wave soldering | **STH** for reflow soldering | Suitable for reflow soldering | Pick and place system | **MSL1** | For resined PCBs



| Serie | CXF | CSF | CSM-CSMH | CSMD | CLF | CHF | CHF D. | CLMH | CTF |
|---|---|---|---|---|---|---|---|---|---|
| Height | 7.95 mm/.313 in | 11.5 mm/.453 in | 9 mm/.355 in | 9.5 mm/.374 in | 11.1 mm/.437 in | 12.5 mm /.492 in | 16 mm / .630 in | 9 mm/.355 in | 11.1 mm/.437 in |
| Pitch mm/in. 2.54 .100 | | | | | | | | | |
| 3.5 .138 | | | | | • | x | x | x | x |
| 3.81 .150 | | | | | | | | | x |
| 5 .197 | • | x | x | x | | | | | • |
| 5.08 .200 | | | | | | | | | • |
| 6.35 .250 | | | | | | | | | |
| 7 .276 | | | | | • | • | • | • | □ |
| 7.5 .295 | | | | | | | | | |
| 7.62 .300 | | | | | | | | | □ |
| 9.52 .375 | | | | | | | | | |
| 10 .394 | | • | • | • | | | | | □ |
| 10.16 .400 | | | | | | | | | □ |
| 12.7 .500 | | | | | | | | | |
| 15 .591 | | | | | | | | | |
| Wire section mm² | 0.2÷1.5 | 0.05÷2.5 | | | 0.5÷1.5 | 0.5÷1.5 | 0.5÷1.5 | | 0.05÷1.5 |
| Wire section AWG | 28÷16 | 30÷14 | | | 30÷16 | 24÷16 | 24÷16 | | 30÷14 |
| Rated current | 10 A | 12 A | 12 A | 12 A | 10 A | 4 A | 8 A | 10 A | 11 A |
| Rated voltage | 300 V (•) | 300 V (x)<br>1000 V (•) | 300 V (x)<br>1000 V (•) | 300 V (x)<br>1000 V (•) | 300 V (•) | 150 V (x)<br>300 V (•) | 150 V (x)<br>300 V (•) | 150 V (x)<br>300 V (•) | 300 V (x)<br>600 V (•) 1000 V (□) |
| Soldering type | | | | | | | | | |



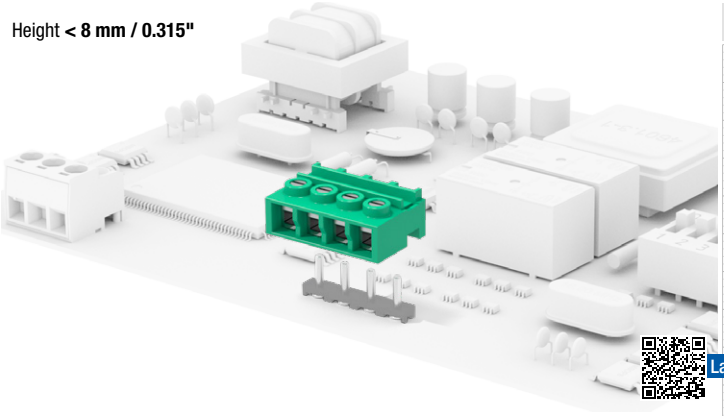
| Serie | CKF | CFF | CBF | CTM-CTMH | CTM D.-CTMH D. | CIF | CVF | CCF | CCF D. |
|---|---|---|---|---|---|---|---|---|---|
| Height | 19.2 mm/.756 in | 22.9 mm/.902 in | 20.85 mm/.821 in | 9.2 mm/.362 in | 18.6 mm/.732 in | 15.5 mm/.610 in | 25 mm/.984 in | 25.4 mm/1 in | 25.8 mm/1.016 in |
| Pitch mm/in. 2.54 .100 | | | | | | | | | |
| 3.5 .138 | • | x | x | x | x | | | | |
| 3.81 .150 | • | x | x | x | | | | | |
| 5 .197 | | | | • | | x | x | x | x |
| 5.08 .200 | | | | • | | x | x | x | |
| 6.35 .250 | | | | | | | | | |
| 7 .276 | □ | • | • | □ | • | | | | |
| 7.5 .295 | | | | | | • | • | | |
| 7.62 .300 | □ | • | • | □ | | • | • | | |
| 9.52 .375 | | | | | | | | | |
| 10 .394 | | | | □ | | □ | □ | • | • |
| 10.16 .400 | | | | □ | | □ | □ | • | |
| 12.7 .500 | | | | | | | | | |
| 15 .591 | | | | | | | | | |
| Wire section mm² | 0.05÷1.5 | 0.14÷1.5 | 0.14÷1.5 | | | 0.05÷2.5 | 0.05÷2.5 | 0.2÷2.5 | 0.2÷2.5 |
| Wire section AWG | 30÷14 | 30÷14 | 30÷14 | | | 30÷12 | 30÷12 | 30÷12 | 30÷12 |
| Rated current | 11 A | 8 A | 11 A | 11 A | 11 A | 16 A | 16 A | 12 A | 12 A |
| Rated voltage | 300 V (•)<br>1000 V (□) | 150 V (x)<br>300 V (•) | 150 V (x)<br>300 V (•) | 300 V (x)<br>600 V (•)<br>1000 V (□) | 300 V (x)<br>600 V (•) | 300 V (x)<br>600 V (•)<br>1000 V (□) | 300 V (x)<br>600 V (•)<br>1000 V (□) | 300 V (x)<br>1000 V (•) | 300 V (x)<br>1000 V (•) |
| Soldering type | | | | | | | | | |



| Serie | CGF-CGFH | CIM-CIMH | CPM HIGH | CPM-CPMH | CRM | CIMH N. | CGM | CUF |
|---|---|---|---|---|---|---|---|---|
| Height | 18.9 mm/.744 in | 12 mm/.472 in | 22.08 mm / .869 in | 22.08 mm / .869 in | 22 mm / .866 in | 16.5 mm/.650 in | 15 mm/.591 in | 15.5 mm/.610 in |
| Pitch mm/in. 2.54 .100 | | | | | | | | |
| 3.5 .138 | | | | | | | | |
| 3.81 .150 | | | | | | | | |
| 5 .197 | x | x | x | x | x | • | x | x |
| 5.08 .200 | x | x | | x | x | | x | |
| 6.35 .250 | | | | | | | | |
| 7 .276 | | | | | | | | |
| 7.5 .295 | • | • | | | | | • | |
| 7.62 .300 | • | • | | | | | • | |
| 9.52 .375 | | | | | | | | |
| 10 .394 | □ | □ | • | • | • | | □ | • |
| 10.16 .400 | □ | □ | | • | • | | □ | |
| 12.7 .500 | | | | | | | | |
| 15 .591 | | | | | | | | |
| Wire section mm² | | | | | | | 0.05÷2.5 | 0.05÷1.5 |
| Wire section AWG | | | | | | | 30÷12 | 30÷12 |
| Rated current | 16 A | 16 A | 12 A | 16 A | 16 A | 16 A | 16 A | 10 A |
| Rated voltage | 300 V (x)<br>600 V (•)<br>1000 V (□) | 300 V (x)<br>600 V (•)<br>1000 V (□) | 300 V (x)<br>1000 V (•) | 300 V (x)<br>1000 V (•) | 300 V (x)<br>1000 V (•) | 300 V (•) | 300 V (x)<br>600 V (•)<br>1000 V (□) | 300 V (x)<br>750 V (•) |
| Soldering type | | | | | | | | |

# CXF

Height **< 8 mm / 0.315"**



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm (.197 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5 Nm (4.42 lbf·in) |
| **Stripping length:** | 6 mm (.24 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

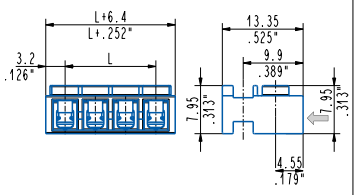
**UL (n. E167473)**
300 V - 10 A - 28÷16 AWG

## Data according to

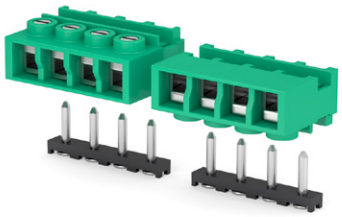
**IEC EN 60947-7-4**
300 V - 10 A - 1.5 $mm^2$

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

Please see "CONNECTORS COMBINATIONS"



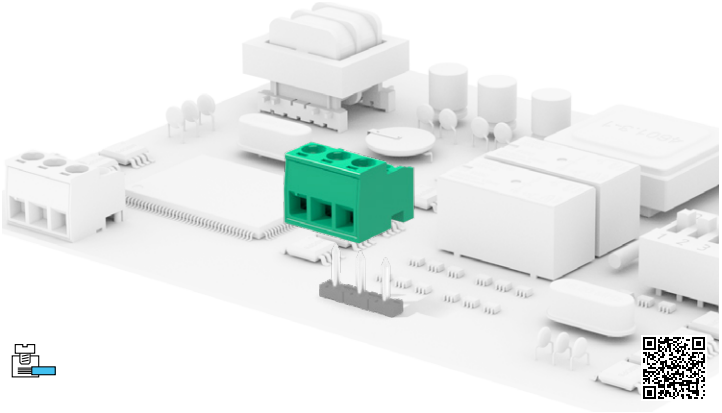

**90° and 270° standard**
**CXF__091** - 2 ÷ 10 poles, 5 mm / .197" pitch

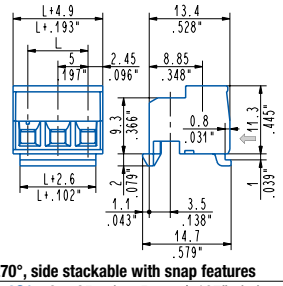


**Usable with:**

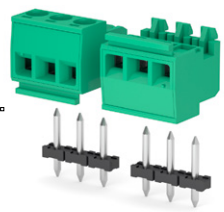
| CSM | CSMH | CSMD |
|---|---|---|
| Page 52 | Page 52 | Page 53 |

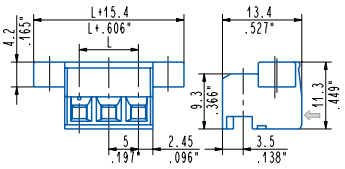
# CSF



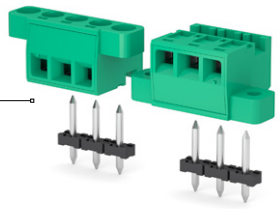


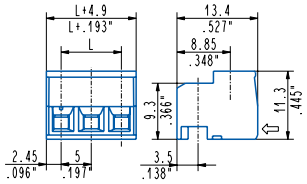

**90°-270°, side stackable with snap features**
CSF__0S1 - 2 ÷ 25 poles, 5 mm / .197" pitch
CSF__0S2 - 2 ÷ 13 poles, 10 mm / .394" pitch



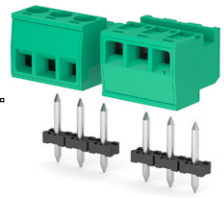



**90°-270°, with flange**
CSF__0F1 - 2 ÷ 23 poles, 5 mm / .197" pitch
CSF__0F2 - 2 ÷ 12 poles, 10 mm / .394" pitch






**90°-270°, side stackable**
CSF__0J1 - 2 ÷ 25 poles, 5 mm / .197" pitch
CSF__0J2 - 2 ÷ 13 poles, 10 mm / .394" pitch



## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 10 mm (.197 in, .394 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5/0.6 Nm (4.42/5.30 lbf·in) |
| **Stripping length:** | 4 ÷ 6 mm (.16 ÷ .24 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**
300 V - 10 A - 30÷14 AWG - for 5 mm pitch (12 A for "0" version)
600 V - 10 A - 30÷14 AWG - for 10 mm pitch (12 A for "0" version)

**VDE (n. 40013401)**
250 V - 10 A - 1.5 mm² - (12 A - for "1" version) for 5 mm pitch
750 V - 10 A - 1.5 mm² - (12 A - for "1" version) for 10 mm pitch

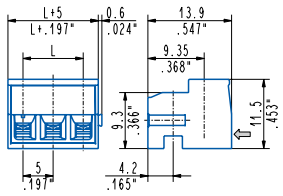
**IMQ (n. EE099)**
300 V - 11 A - 2.5 mm² - for 5 mm pitch
1000 V - 11 A - 2.5 mm² - for 10 mm pitch

**CSA: (n. LR102896)**
300 V - 12 A - 30÷14 AWG for 5 mm pitch
600 V - 12 A - 30÷14 AWG for 10 mm pitch

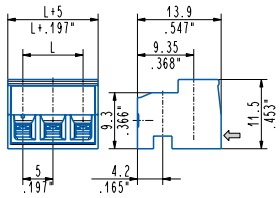
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

A higher number of poles is obtained by combining together **modular** parts.

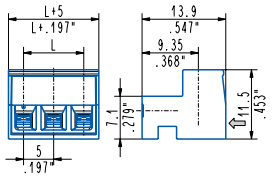
Please see "CONNECTORS COMBINATIONS"



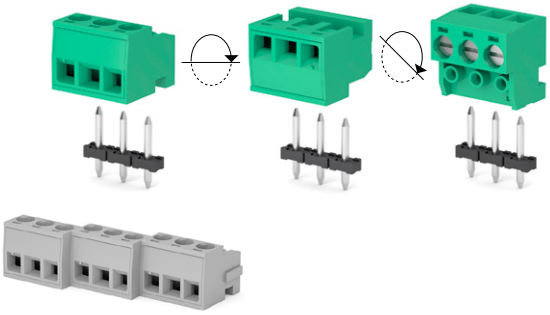

**Flexible use, modular**
CSF__0U1 - 2 ÷ 25 poles, 5 mm / .197" pitch
CSF__0U2 - 1 ÷ 13 poles, 10 mm / .394" pitch




**Flexible use, side stackable**
CSF__001 - 2 ÷ 25 poles, 5 mm / .197" pitch
CSF__002 - 2 ÷ 13 poles, 10 mm / .394" pitch



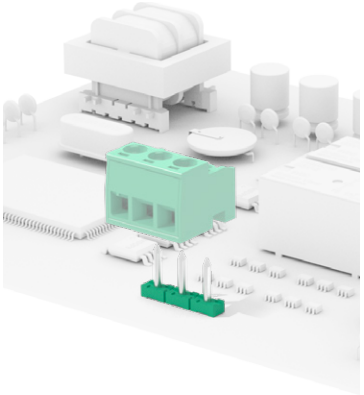

**0°, side stackable**
CSF__011 - 2 ÷ 25 poles, 5 mm / .197" pitch
CSF__012 - 2 ÷ 13 poles, 10 mm / .394" pitch



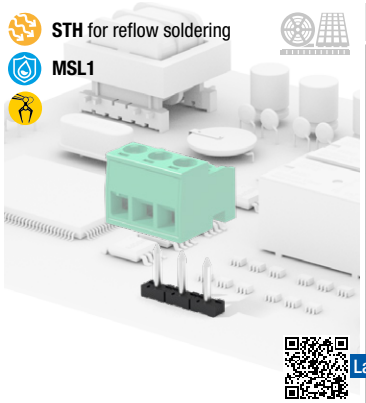
**Usable with:**

| CSM | CSMH | CSMD |
|---|---|---|
| Page 52 | Page 52 | Page 53 |

# CSM



# CSMH



**STH** for reflow soldering

**MSL1**

Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | green for wave soldering, black for reflow soldering |
| **Pitches:** | metric 5 mm, 10 mm (.197 in, .394 in) |
| **PCB thickness:** | max 2.4 mm (.094 in) |
| **PCB hole diameter:** | min 1.5 mm (.059 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **STH perating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**
300 V - 12 A - for 5 mm pitch
600 V - 12 A - for 10 mm pitch

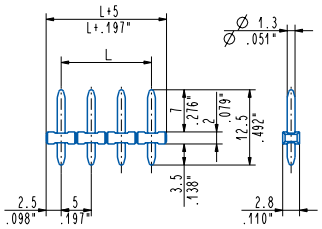
**VDE (n. 40013401)**
250 V - 12 A - 1.5 mm² - for 5 mm pitch
750 V - 12 A - 1.5 mm² - for 10 mm pitch

**IMQ (n. EE099)**
300 V - 11 A - 2.5 mm² - for 5 mm pitch
1000 V - 11 A - 2.5 mm² - for 10 mm pitch

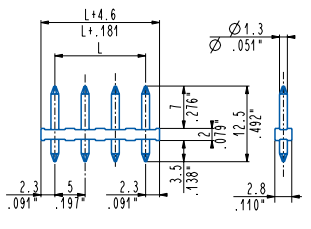
**CSA (n. LR102896)**
300 V - 12 A for 5 mm pitch
600 V - 12 A for 10 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

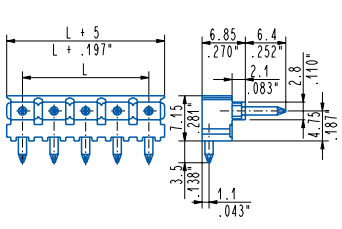
Please see "CONNECTORS COMBINATIONS"




**0°, not side stackable**
**CSM__0A1** - 2 ÷ 25 poles, 5 mm / .197" pitch
**CSM__0A2** - 2 ÷ 13 poles, 10 mm / .394" pitch
**CSMH__0A1-0N** 2 ÷ 25 poles, 5 mm / .197" pitch
**CSMH__0A2-0N** 2 ÷ 13 poles, 10 mm / .394" pitch



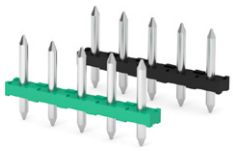

**0°, side stackable**
**CSM__0S1** - 2 ÷ 8 poles, 5 mm / .197" pitch
**CSM__0S2** - 2 ÷ 4 poles, 10 mm / .394" pitch
**CSMH__0S1-0N** 2 ÷ 8 poles, 5 mm / .197" pitch
**CSMH__0S2-0N** 2 ÷ 4 poles, 10 mm / .394" pitch

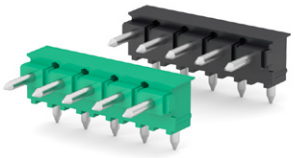



**90°**
**CSM__9A1** - 2 ÷ 25 poles, 5 mm / .197" pitch
**CSM__9A2** - 2 ÷ 13 poles, 10 mm / .394" pitch
**CSMH__9A1-0N** 2 ÷ 25 poles, 5 mm / .197" pitch
**CSMH__9A2-0N** 2 ÷ 13 poles, 10 mm / .394" pitch

**Usable with:**

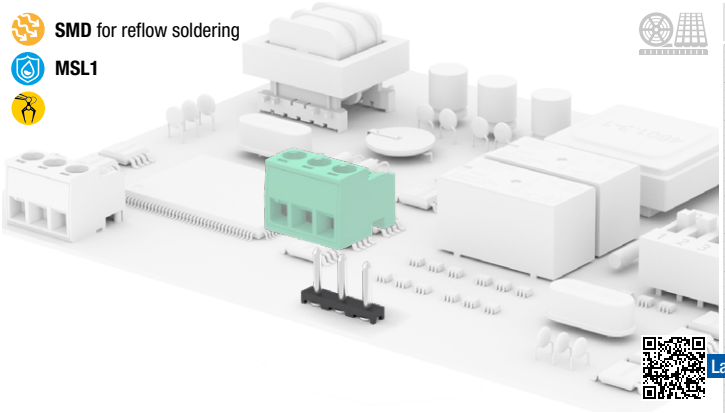
| CXF | CSF |
|---|---|
| Page 50 | Page 51 |





**SMD** for reflow soldering

**MSL1**



Last release

Your drawings and notes

### General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | black |
| **Pitches:** | metric 5 mm, 10 mm (.197 in, .394 in) |
| **PCB thickness:** | max 2.4 mm (.094 in) |
| **Operating temperature range** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

### Certifications

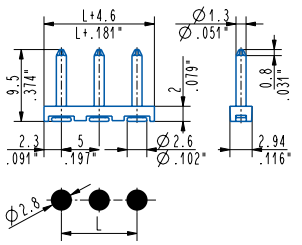
**UL (n. E167473)**
300 V - 12 A for 5 mm pitch
600 V - 12 A for 10 mm pitch

### Data according to

**IEC EN 61984**
300 V - 11 A - 2.5 mm² - for 5 mm pitch
1000 V - 11 A - 2.5 mm² - for 10 mm pitch

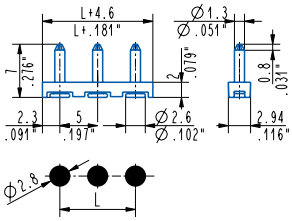
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

Please see "CONNECTORS COMBINATIONS"




**0°, side stackable**
**CSMD__0A1-0N** - (*) poles, 5 mm / .197" pitch
**CSMD__0A2-0N** - 2 ÷ 4 poles, 10 mm / .394" pitch

* 2,3,4,5,6,7,8,10



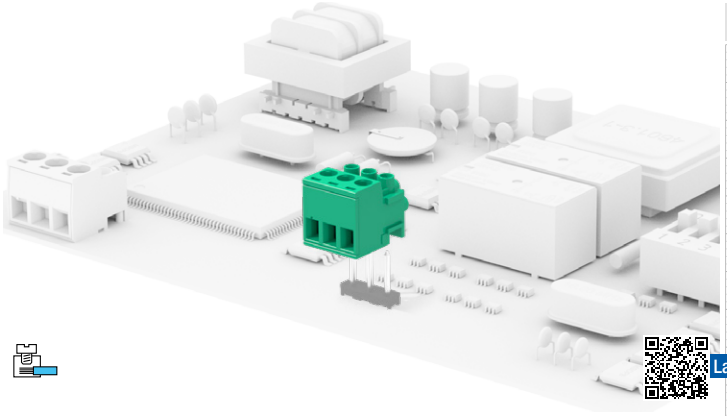

**0°, side stackable**
**CSMD__0A1-0N00_** (*) poles, 5 mm /.197" pitch
**CSMD__0A2-0N00_** 2÷4 poles, 10 mm /.394" pitch

* 2,3,4,5,6,7,8,10

Usable with **CXF**

**Usable with:**

| CXF | CSF |
|---|---|
| Page 50 | Page 51 |



Last release

Your drawings and notes

### General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | green |
| **Pitches:** | metric 3.5 mm, 7 mm (.138 in, .276 in) |
| **Screw dimension:** | M2 |
| **Recommended/Highest tightening torque:** | 0.2/0.25 Nm (1.77/2.27 lbf·in) |
| **Stripping length:** | 5 ÷ 6 mm (.197 ÷ .236 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

### Certifications

**UL (n. E167473)**
300 V - 10 A - 30÷16 AWG

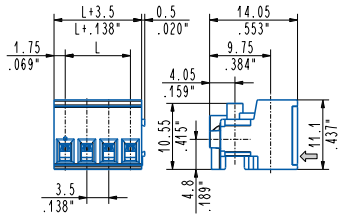
### Data according to

**IEC EN 61984**
150 V - 10 A - 1.5 mm² for 3.5 mm pitch
300 V - 10 A - 1.5 mm² for 7 mm pitch

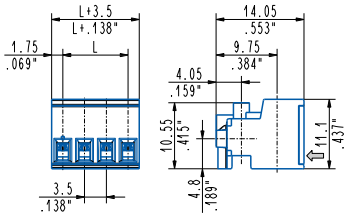
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

A higher number of poles is obtained by combining together **modular** parts.

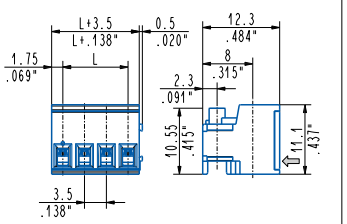
Please see "CONNECTORS COMBINATIONS"



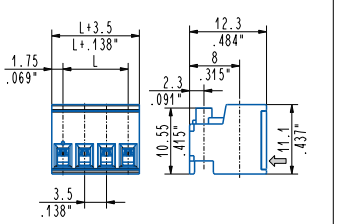

**Flexible use, modular**
**CLF__0U8** - 2 ÷ 22 poles, 3,5 mm / .138" pitch
**CLF__0U9** - 1 ÷ 11 poles, 7 mm / .276" pitch



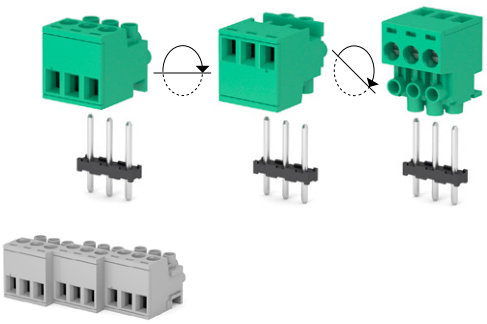

**Flexible use, side stackable**
**CLF__008** - 2 ÷ 22 poles, 3,5 mm / .138" pitch
**CLF__009** - 2 ÷ 11 poles, 7 mm / .276" pitch

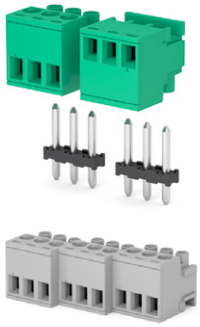



**90° and 270°, modular**
**CLF__0W8** - 2 ÷ 22 poles, 3,5 mm / .138" pitch
**CLF__0W9** - 1 ÷ 11 poles, 7 mm / .276" pitch




**90° and 270°, side stackable**
**CLF__098** - 2 ÷ 22 poles, 3,5 mm / .138" pitch
**CLF__099** - 2 ÷ 11 poles, 7 mm / .276" pitch



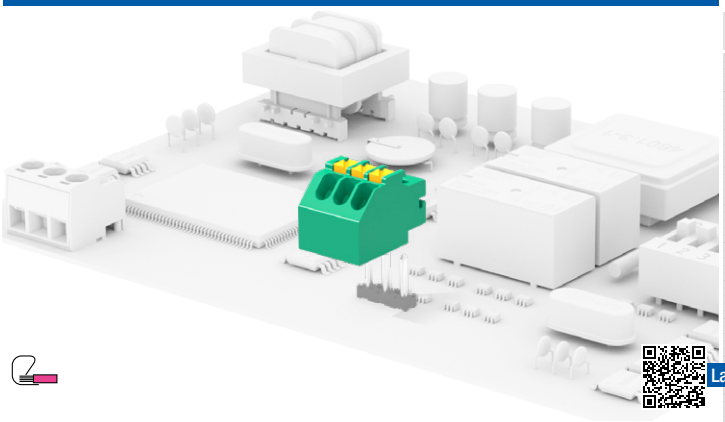


**Usable with:**

**CLMH__S**

Page 57

# CHF



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | green |
| **Pitches:** | metric 3.5 mm, 7 mm (.138 in, .276 in) |
| **Stripping length:** | 8.5 ÷ 10 mm (.335 ÷ .394 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

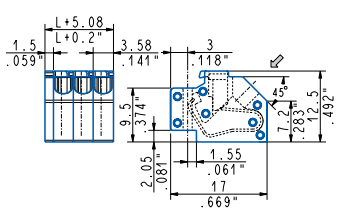
**UL (n. E167473)**
150 V - 2 A - 24÷16 AWG for 3.5 mm pitch
300 V - 2 A - 24÷16 AWG for 7 mm pitch

## Data according to

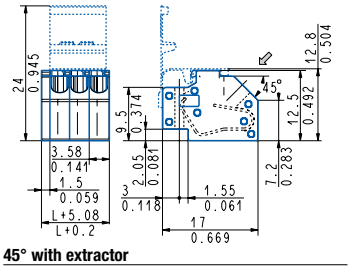
**IEC EN 61984**
150 V - 4 A - 1.5 mm² for 3.5 mm pitch
300 V - 4 A - 1.5 mm² for 7 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

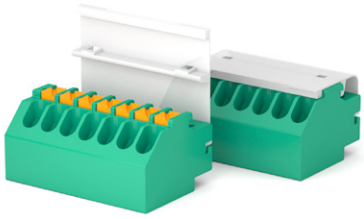
Please see "CONNECTORS COMBINATIONS"




**45°**
**CHF__008** - 2÷8 poles, 3,5 mm / .138" pitch
**CHF__009** - 2÷4 poles, 7 mm / .276" pitch

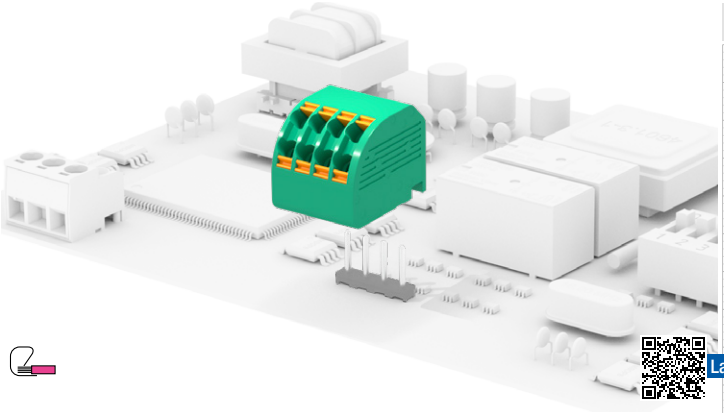



**45° with extractor**
**CHF__008-000E** - 2÷11 poles, 3,5 mm / .138" pitch
**CHF__009-000E** - 2÷6 poles, 7 mm / .276" pitch



**Usable with:**

| CLMH__0L | CLMH__0A |
|---|---|
| Page 57 | Page 57 |



Last release

Your drawings and notes

### General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | green |
| **Pitches:** | metric 3.5 mm, 7 mm (.138 in, .276 in) |
| **Stripping length:** | 10 mm (.394 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

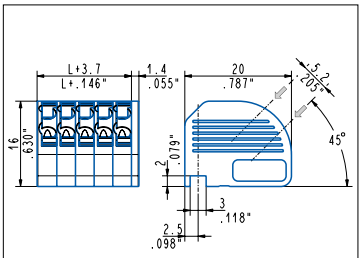
### Data according to

**UL 1059**
150 V - 8 A - 24÷16 AWG for 3.5 mm pitch
300 V - 8 A - 24÷16 AWG for 7 mm pitch

**IEC EN 61984**
150 V - 8 A - 1.5 $mm^2$ for 3.5 mm pitch
300 V - 8 A - 1.5 $mm^2$ for 7 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

Please see "CONNECTORS COMBINATIONS"




**45°, double wire entry**
**CHF__D08** - 2 ÷ 16 poles, 3,5 mm / .138" pitch
**CHF__D09** - 2 ÷ 8 poles, 7 mm / .276" pitch

**Usable with:**

**CLMH__S**

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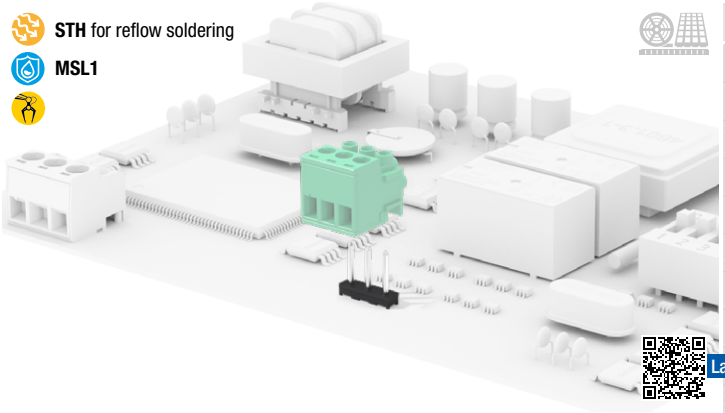
# CLMH

**STH** for reflow soldering

**MSL1**



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | black for reflow soldering |
| **Pitches:** | metric 3.5 mm, 7 mm (.138 in, .276 in) |
| **PCB hole diameter (CLMH__S):** | min 1.2 mm (.047 in) |
| **PCB hole diameter (CLMH__0):** | min 1.5 mm (.059 in) |
| **Operating temperature range** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

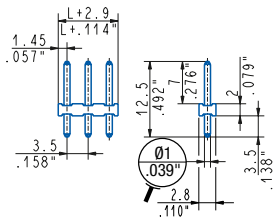
**UL (n. E167473)**
150 V - 2 A - for 3.5 mm "**0**" version
300 V - 2 A - for 7 mm "**0**" version
300 V - 10 A - for 3.5 mm and 7 mm for "**S**" version

## Data according to

**IEC EN 61984**
150 V - 4 A - for 3.5 mm
300 V - 4 A - for 7 mm

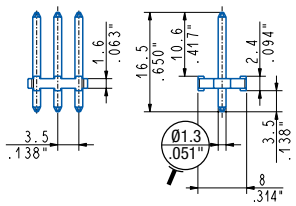
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

Please see "CONNECTORS COMBINATIONS"



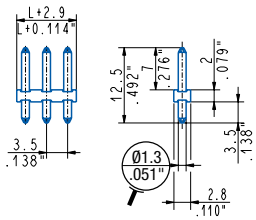

**0°, side stackable**
**CLMH__SA8-0N** - 2,3,4,9 poles, 3,5 mm / .138" pitch
**CLMH__SA9-0N** - 2,5 poles, 7 mm / .276" pitch

Usable with **CLF** and **CHF DOUBLE** series




**0°, side stackable with large base**
**CLMH__0L8-0N** - 2 ÷ 8 poles, 3,5 mm / .138" pitch
**CLMH__0L9-0N** - 2 ÷ 4 poles, 7 mm / .276" pitch

Usable with **CHF**



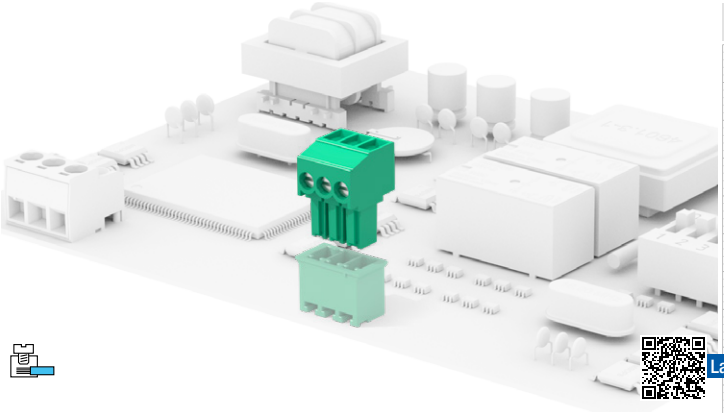

**0°, side stackable**
**CLMH__0A8-0N** - 2 ÷ 8 poles, 3,5 mm / .138" pitch
**CLMH__0A9-0N** - 2 ÷ 4 poles, 7 mm / .276" pitch

Usable with **CHF**

**Usable with:**

| CLF | CHF | CHF double |
|---|---|---|
| Page 54 | Page 55 | Page 56 |

# CTF



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | green |
| **Pitches:** | metric 3.5, 5, 7, 10 mm (.138, .197, .275, .394 in)<br>imperial 3.81, 5.08, 7.62, 10.16 mm (.150, .200, .300, .400 in) |
| **Screw dimension:** | M2 |
| **Recommended/highest tightening torque:** | 0.2/0.25 Nm (1.77/2.21 lbf·in) |
| **Stripping length:** | 5 ÷ 6 mm (.20 ÷ .24 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**
300 V - 11 A - 30÷14 AWG - for 3.5 mm, 3.81 mm, 5 mm, 5.08 mm, 7 mm, 7.62 mm pitch
600 V - 11 A - 30÷14 AWG - for 10 mm, 10.16 mm pitch

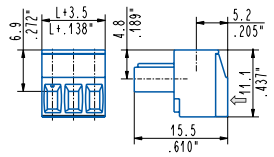
**VDE (n. 40013398)**
130 V - 11A - 1 mm² - for 3.5 mm and 3.81 mm pitch
250 V - 11A - 1 mm² - for 5 mm and 5.08 mm pitch
450 V - 11A - 1 mm² - for 7 mm and 7.62 mm pitch

**IMQ (n. CA02.00901)**
150 V - 11 A - 1.5 mm² - 2,5kV - III/3 / 300 V - 11 A - 1.5 mm² - 2,5kV - II/2 for 3.5, 3.81 mm pitch
300 V - 11 A - 1.5 mm² - 4kV - III/3 / 600 V - 11 A - 1.5 mm² - 4kV - II/2 for 5, 5.08 mm pitch
400 V - 11 A - 1.5 mm² - 6kV - III/3 / 1000 V - 11 A - 1.5 mm² - 6kV - II/2 for 7, 7.62 mm pitch
630 V - 11 A - 1.5 mm² - 8kV - III/3 / 1000 V - 11 A - 1.5 mm² - 8kV - II/2 for 10, 10.16 mm pitch

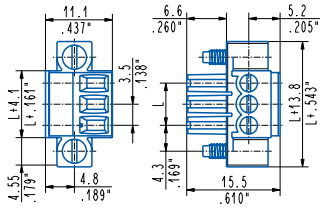
**CSA (n. LR102896)**
300 V - 11 A - 30÷16 AWG - for 3.5 mm, 3.81 mm, 7 mm and 7.62 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

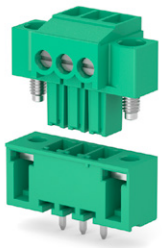
Please see "CONNECTORS COMBINATIONS"




**Side stackable**
**CTF__008** - 2 ÷ 25 poles, 3,5 mm / .138" pitch
**CTF__001** - 2 ÷ 18 poles, 5 mm / .197" pitch
**CTF__009** - 2 ÷ 13 poles, 7 mm / .276" pitch
**CTF__002** - 2 ÷ 9 poles, 10 mm / .394" pitch
**CTF__00T** - 2 ÷ 25 poles, 3.81 mm / .150" pitch
**CTF__005** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**CTF__007** - 2 ÷ 13 poles, 7.62 mm / .300" pitch
**CTF__006** - 2 poles, 10.16 mm / .400" pitch

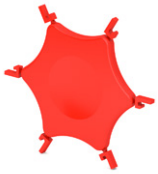



**Locking screw flanges**
**CTF__0V8** - 2 ÷ 23 poles, 3,5 mm / .138" pitch
**CTF__0V1** - 2 ÷ 18 poles, 5 mm / .197" pitch
**CTF__0V9** - 2 ÷ 12 poles, 7 mm / .276" pitch
**CTF__0V2** - 2 ÷ 9 poles, 10 mm / .394" pitch
**CTF__0VT** - 2 ÷ 23 poles, 3.81 mm / .150" pitch
**CTF__0V7** - 2 ÷ 12 poles, 7.62 mm / .300" pitch

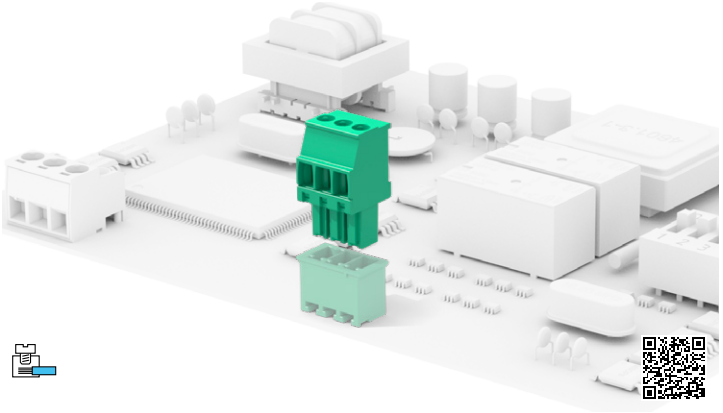


**Usable with:**

| CTM | CTMH | CTM D./CTMH D. | CKF-SC1 |
|---|---|---|---|
| Page 62 | Page 63 | Page 65 | Page 83 |



# CKF



## General data

| | |
|---|---|
| **Dimensional class:** | Low |
| **Standard colour:** | green |
| **Pitches:** | metric 3.5 mm, 7 mm (.138 in, .276 in)<br>imperial 3.81 mm, 7.62 mm (.150 in, .300 in) |
| **Screw dimension:** | M2 |
| **Recommended/Highest tightening torque:** | 0.2/0.25 Nm (1.77/2.21 lbf·in) |
| **Stripping length:** | 5 ÷ 6 mm (.20 ÷ .24 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

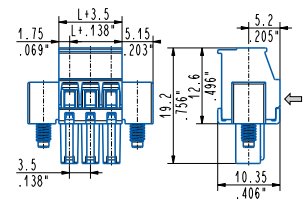
**UL (n. E167473)**
300 V - 10 A - 30÷14 AWG

**IMQ (n. CA02.00901)**
150 V - 11 A - 1.5 mm² - 2.5kV - III/3 / 300 V - 11 A - 1.5 mm² - 2.5kV - II/2 for 3.5, 3.81 mm pitch
400 V - 11 A - 1.5 mm² - 6kV - III/3 / 1000 V - 11 A - 1.5 mm² - 6kV - II/2 for 7, 7.62 mm pitch

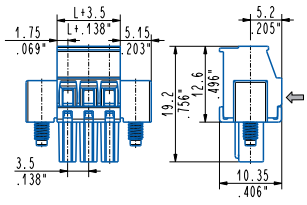
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

A higher number of poles is obtained by combining together **modular** parts.

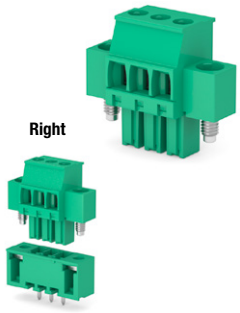
Please see "CONNECTORS COMBINATIONS"

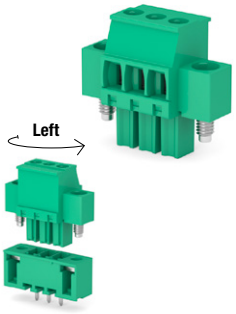


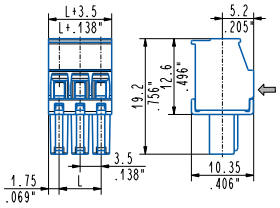

**Right with locking screw flanges**
**CKF__0D8** - 2 ÷ 23 poles, 3,5 mm / .138" pitch
**CKF__0D9** - 2 ÷ 12 poles, 7 mm / .276" pitch
**CKF__0DT** - 2 ÷ 16 poles, 3,81 mm / .150" pitch
**CKF__0D7** - 2 ÷ 8 poles, 7.62 mm / .300" pitch



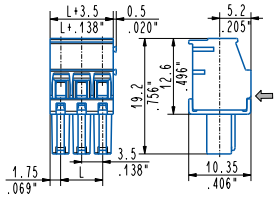

**Left with locking screw flanges**
**CKF__0S8** - 2 ÷ 23 poles, 3,5 mm / .138" pitch
**CKF__0S9** - 2 ÷ 12 poles, 7 mm / .276" pitch
**CKF__0ST** - 2 ÷ 16 poles, 3,81 mm / .150" pitch
**CKF__0S7** - 2 ÷ 8 poles, 7.62 mm / .300" pitch



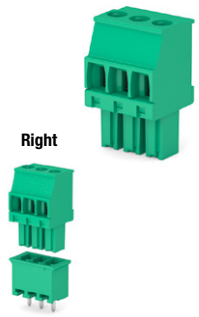



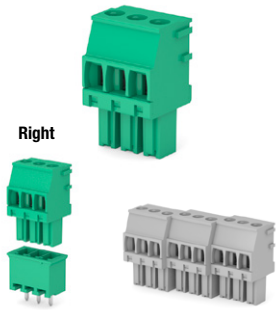



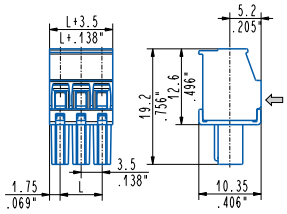

**Right side stackable**
**CKF__0R8** - 2 ÷ 25 poles, 3,5 mm / .138" pitch
**CKF__0R9** - 2 ÷ 13 poles, 7 mm / .276" pitch
**CKF__0RT** - 2 ÷ 16 poles, 3,81 mm / .150" pitch
**CKF__0R7** - 2 ÷ 8 poles, 7.62 mm / .300" pitch



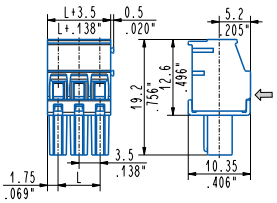

**Right modular**
**CKF__0M8** - 2 ÷ 25 poles, 3,5 mm / .138" pitch
**CKF__0M9** - 1 ÷ 13 poles, 7 mm / .276" pitch
**CKF__0MT** - 2 ÷ 16 poles, 3,81 mm / .150" pitch
**CKF__0M7** - 1 ÷ 8 poles, 7.62 mm / .300" pitch



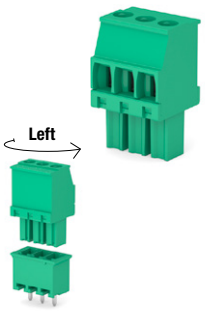



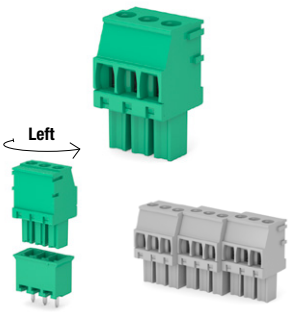




**Left side stackable**
**CKF__0L8** - 2 ÷ 25 poles, 3,5 mm / .138" pitch
**CKF__0L9** - 2 ÷ 13 poles, 7 mm / .276" pitch
**CKF__0LT** - 2 ÷ 16 poles, 3,81 mm / .150" pitch
**CKF__0L7** - 2 ÷ 8 poles, 7.62 mm / .300" pitch



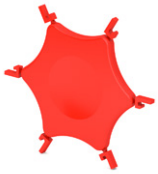

**Left modular**
**CKF__0W8** - 2 ÷ 25 poles, 3,5 mm / .138" pitch
**CKF__0W9** - 1 ÷ 13 poles, 7 mm / .276" pitch
**CKF__0WT** - 2 ÷ 16 poles, 3,81 mm / .150" pitch
**CKF__0W7** - 1 ÷ 8 poles, 7.62 mm / .300" pitch



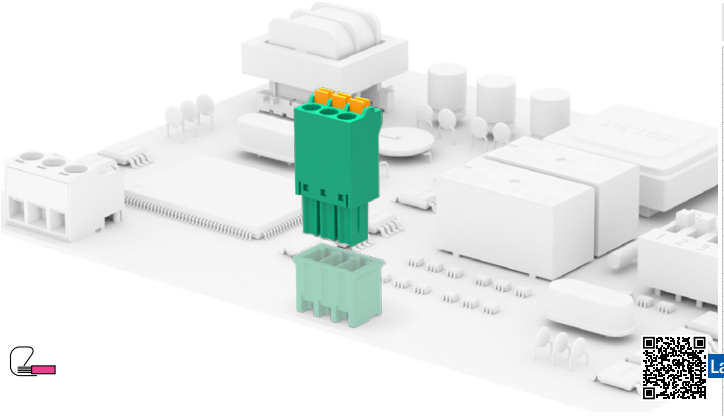




**Usable with:**

| CTM | CTMH | CTM D./CTMH D. | CKF-SC1 |
|---|---|---|---|
| Page 62 | Page 63 | Page 65 | Page 83 |



L = pitch x (poles - 1)



Last release

Your drawings and notes

### Functional characteristics

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | green |
| **Pitches:** | metric 3.5 mm, 7 mm (.138 in, .276 in)<br>imperial 3.81 mm, 7.62 mm (.150 in, .300 in) |
| **Stripping length:** | 10.5 ÷ 11.5 mm (.41 ÷ .45 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

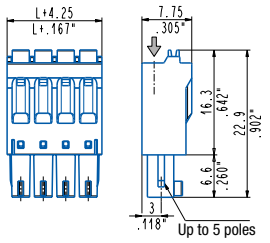
### Data according to

**UL 1059**
300 V - 10 A - 30÷16 AWG

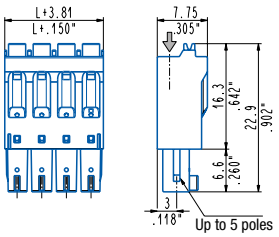
**IEC EN 60947-7-4**
150 V - 10 A - 1.5 mm² - for 3.5 mm and 3.81 mm pitch
300 V - 10 A - 1.5 mm² - for 7 mm and 7.62 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

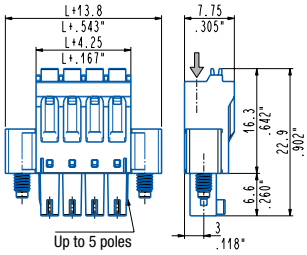
Please see "CONNECTORS COMBINATIONS"




**Not side stackable**
**CFF__008** - 2 ÷ 12 poles, 3,5 mm / .138" pitch
**CFF__009** - 2 ÷ 6 poles, 7 mm / .276" pitch



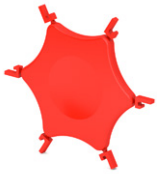

**Side stackable**
**CFF__0AT** - 2 ÷ 6 poles, 3,81 mm / .150" pitch
**CFF__0A7** - 2 ÷ 3 poles, 7.62 mm / .300" pitch



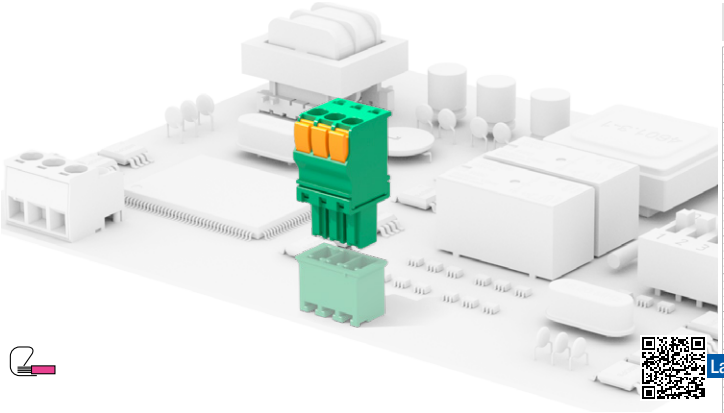

**Locking screw flanges**
**CFF__0V8** - 2 ÷ 6 poles, 3,5 mm / .138" pitch
**CFF__0V9** - 2 ÷ 3 poles, 7 mm / .276" pitch
**CFF__0VT** - 2 ÷ 6 poles, 3,81 mm / .150" pitch
**CFF__0V7** - 2 ÷ 3 poles, 7.62 mm / .300" pitch

**Usable with:**

| CTM | CTMH | CTM D./CTMH D. | CKF-SC1 |
|---|---|---|---|
| Page 62 | Page 63 | Page 65 | Page 83 |



# CBF



Last release

Your drawings and notes

## Functional characteristics

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | green |
| **Pitches:** | metric 3.5 mm, 7 mm (.138 in, .276 in)<br>imperial 3.81 mm, 7.62 mm (.150 in, .300 in) |
| **Stripping length:** | 10.5 ÷ 11.5 mm (.41 ÷ .45 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

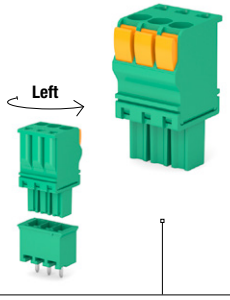
**UL (n. E167473)**
300 V - 11 A - 30÷14 AWG stranded (9 A - 30÷14 AWG solid)

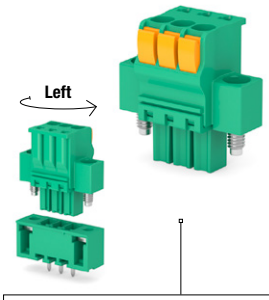
## Data according to

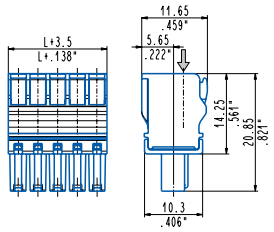
**IEC EN 61984**
150 V - 8 A - 1.5 mm² - for 3.5 mm and 3.81 mm pitch
300 V - 8 A - 1.5 mm² - for 7 mm and 7.62 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

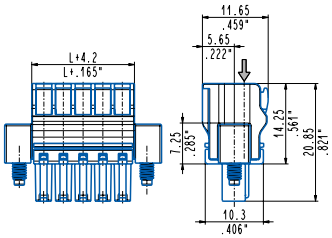
Please see "CONNECTORS COMBINATIONS"



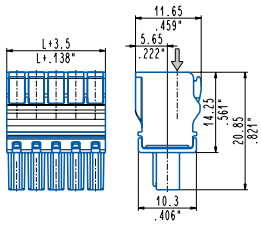



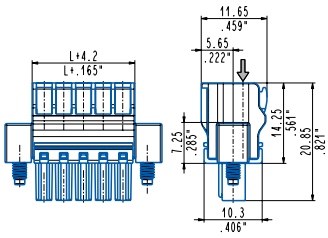

**Right side stackable**
**CBF__0R8** - 2 ÷ 25 poles, 3,5 mm / .138" pitch
**CBF__0R9** - 2 ÷ 13 poles, 7 mm / .276" pitch
**CBF__0RT** - 2 ÷ 25 poles, 3,81 mm / .150" pitch
**CBF__0R7** - 2 ÷ 13 poles, 7.62 mm / .300" pitch



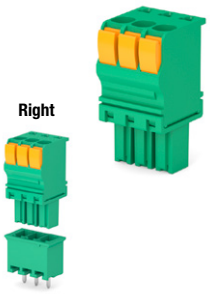

**Right locking screw flanges**
**CBF__0D8** - 2 ÷ 23 poles, 3,5 mm / .138" pitch
**CBF__0D9** - 2 ÷ 12 poles, 7 mm / .276" pitch
**CBF__0DT** - 2 ÷ 23 poles, 3,81 mm / .150" pitch
**CBF__0D7** - 2 ÷ 12 poles, 7.62 mm / .300" pitch

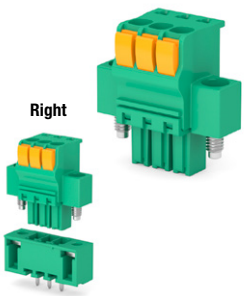



**Left side stackable**
**CBF__0L8** - 2 ÷ 25 poles, 3,5 mm / .138" pitch
**CBF__0L9** - 2 ÷ 13 poles, 7 mm / .276" pitch
**CBF__0LT** - 2 ÷ 25 poles, 3,81 mm / .150" pitch
**CBF__0L7** - 2 ÷ 13 poles, 7.62 mm / .300" pitch



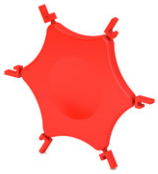

**Left locking screw flanges**
**CBF__0S8** - 2 ÷ 23 poles, 3,5 mm / .138" pitch
**CBF__0S9** - 2 ÷ 12 poles, 7 mm / .276" pitch
**CBF__0ST** - 2 ÷ 23 poles, 3,81 mm / .150" pitch
**CBF__0S7** - 2 ÷ 12 poles, 7.62 mm / .300" pitch




**Usable with:**

| CTM | CTMH | CTM D./CTMH D. | CKF-SC1 |
|---|---|---|---|
| Page 62 | Page 63 | Page 65 | Page 83 |



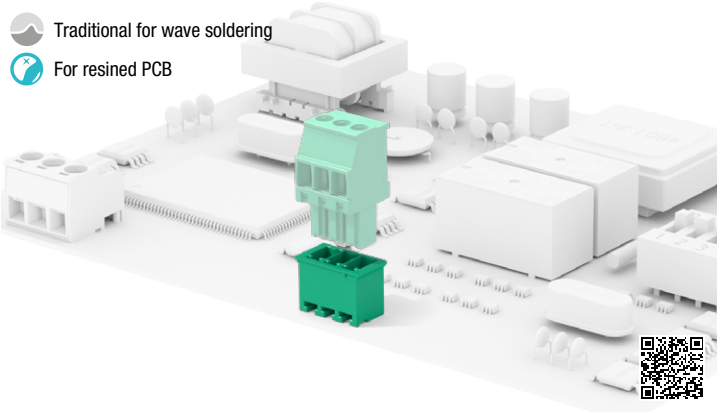
L = pitch x (poles - 1)

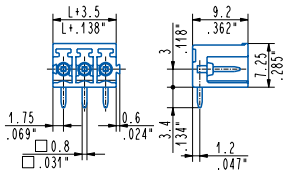
The drawing refers to only a pitch, please see our complete range of products by visiting our website on **www.sauro.net** or refering to your representative Sales Manager

# CTM

Traditional for wave soldering

For resined PCB





**90°, modular**

**CTM__9M8** - 2 ÷ 12 poles, 3,5 mm / .138" pitch
**CTM__9M1°** - 2 ÷ 22 poles, 5 mm / .197" pitch
**CTM__9M9** - 1 ÷ 6 poles, 7 mm / .276" pitch
**CTM__9M2°** - 1 ÷ 11 poles, 10 mm / .394" pitch
**CTM__9MT** - 2 ÷ 12 poles, 3.81 mm / .150" pitch
**CTM__9M5°** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**CTM__9M7** - 1 ÷ 6 poles, 7.62 mm / .300" pitch
**CTM__9M6°** - 1 ÷ 2 poles, 10.16 mm / .400" pitch

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | green |
| **Pitches:** | metric 3.5, 5, 7, 10 mm (.138, .197, .275, .394 in)<br>imperial 3.81, 5.08, 7.62, 10.16 mm (.150, .200, .300, .400 in) |
| **PCB thickness:** | max 2,4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.2 mm (.047 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**
300 V - 11 A - for 3.5 mm, 3.81 mm, 5 mm, 5.08 mm, 7 mm, 7.62 mm pitch
600 V - 11 A - for 10 mm and 10.16 mm pitch

**VDE (n. 40013398)**
130 V - 11 A - for 3.5 mm and 3.81 mm pitch
250 V - 11 A - for 5 mm and 5.08 mm pitch
450 V - 11 A - or 7 mm and 7.62 mm pitch

**IMQ (n. CA02.00901)**
150 V - 11 A - 1.5 mm² - 2,5kV - III/3 / 300 V - 11 A - 1.5 mm² - 2,5kV - II/2 for 3.5, 3.81 mm pitch
300 V - 11 A - 1.5 mm² - 4kV - III/3 / 600 V - 11 A - 1.5 mm² - 4kV - II/2 for 5, 5.08 mm pitch
400 V - 11 A - 1.5 mm² - 6kV - III/3 / 1000 V - 11 A - 1.5 mm² - 6kV - II/2 for 7, 7.62 mm pitch
630 V - 11 A - 1.5 mm² - 8kV - III/3 / 1000 V - 11 A - 1.5 mm² - 8kV - II/2 for 10, 10.16 mm pitch

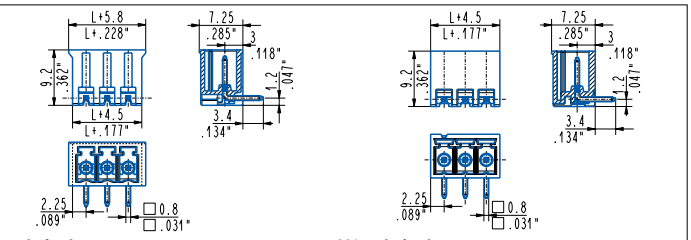
**CSA (n. LR102896)**
300 V - 11 A - for 3.5 mm, 3.81 mm, 7 mm and 7.62 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

A higher number of poles is obtained by combining together **modular** parts.

Please see "CONNECTORS COMBINATIONS"

° The product is solderable up to 260 °C

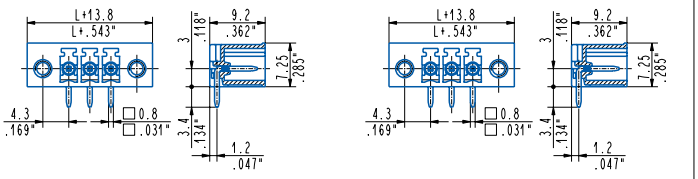


**90°, polarized**

**CTM__9P8** - 2 ÷ 12 poles, 3,5 mm / .138" pitch
**CTM__9P9** - 2 ÷ 6 poles, 7 mm / .276" pitch
**CTM__9PT** - 2 ÷ 12 poles, 3.81 mm / .150" pitch
**CTM__9P7** - 2 ÷ 6 poles, 7.62 mm / .300" pitch

**90°, polarized**

**CTM__9P8°** 13÷25 poles, 3,5 mm / .138" pitch
**CTM__9P9°** 7÷13 poles, 7 mm / .276" pitch
**CTM__9PT°** 13÷25 poles, 3.81 mm / .150" pitch
**CTM__9P7°** 7÷13 poles, 7.62 mm / .300" pitch
**CTM__9P1°** - 2 ÷ 22 poles, 5 mm .197" pitch
**CTM__9P2°** - 2 ÷ 11 poles, 10 mm / .394" pitch
**CTM__9P5°** - 2 ÷ 3 poles, 5,08 mm .200" pitch
**CTM__9P6°**- 2 poles, 10.16 mm / .400" pitch

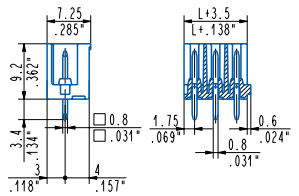


**90°, locking screw flanges**

**CTM__9V8** - 2 ÷ 12 poles, 3,5 mm / .138" pitch
**CTM__9V1°** - 2 ÷ 22 poles, 5 mm / .197" pitch
**CTM__9V9** - 2 ÷ 6 poles, 7 mm / .276" pitch
**CTM__9V2°** - 2 ÷ 11 poles, 10 mm / .394" pitch
**CTM__9VT** - 2 ÷ 12 poles, 3.81 mm / .150" pitch
**CTM__9V7** - 2 ÷ 6 poles, 7.62 mm / .300" pitch

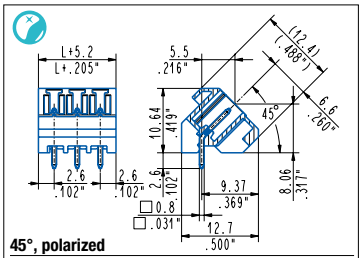
**90°, locking screw flanges**

**CTM__9V8°** - 13 ÷ 23 poles, 3,5 mm / .138" pitch
**CTM__9V9°** - 7 ÷ 12 poles, 7 mm / .276" pitch
**CTM__9VT°** - 13 ÷ 23 poles, 3.81 mm / .150" pitch
**CTM__9V7°** - 7 ÷ 12 poles, 7.62 mm / .300" pitch



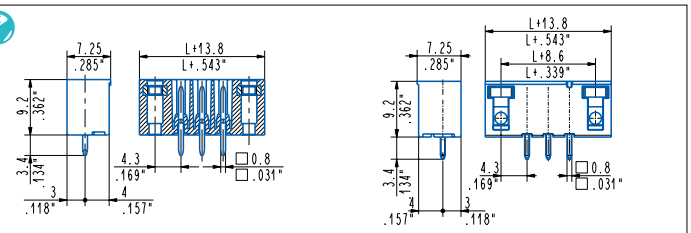
**0°, modular**

**CTM__0M8** - 2 ÷ 12 poles, 3,5 mm / .138" pitch
**CTM__0M1°** - 2 ÷ 22 poles, 5 mm / .197" pitch
**CTM__0M9** - 1 ÷ 6 poles, 7 mm / .276" pitch
**CTM__0M2°** - 1 ÷ 11 poles, 10 mm / .394" pitch
**CTM__0MT** - 2 ÷ 12 poles, 3.81 mm / .150" pitch
**CTM__0M5°** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**CTM__0M7** - 1 ÷ 6 poles, 7.62 mm / .300" pitch
**CTM__0M6°** - 1 ÷ 2 poles, 10.16 mm / .400" pitch



**45°, polarized**

**CTM__4P8** - 2 ÷ 8 poles, 3,5 mm / .138" pitch
**CTM__4P9** - 2 ÷ 4 poles, 7 mm / .276" pitch
**CTM__4PT** - 2 ÷ 8 poles, 3.81 mm / .150" pitch
**CTM__4P7** - 2 ÷ 4 poles, 7.62 mm / .300" pitch

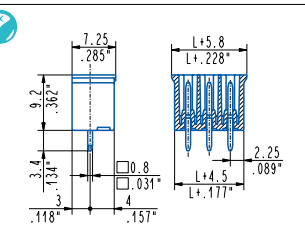


**0°, locking screw flanges**

**CTM__0V8** - 2 ÷ 12 poles, 3,5 mm / .138" pitch
**CTM__0V1°** - 2 ÷ 22 poles, 5 mm / .197" pitch
**CTM__0V9** - 2 ÷ 6 poles, 7 mm / .276" pitch
**CTM__0V2°** - 2 ÷ 11 poles, 10 mm / .394" pitch
**CTM__0VT** - 2 ÷ 12 poles, 3.81 mm / .150" pitch
**CTM__0V7** - 2 ÷ 6 poles, 7.62 mm / .300" pitch

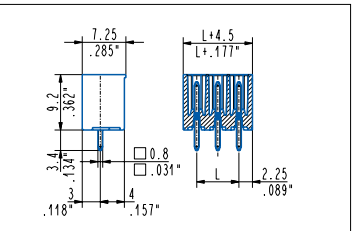
**0°, locking screw flanges**

**CTM__0V8°** - 13 ÷ 23 poles, 3,5 mm / .138" pitch
**CTM__0V9°** - 7 ÷ 12 poles, 7 mm / .276" pitch
**CTM__0VT°** - 13 ÷ 23 poles, 3.81 mm / .150" pitch
**CTM__0V7°** - 7 ÷ 12 poles, 7.62 mm / .300" pitch



**0°, polarized**

**CTM__0P8** - 2 ÷ 12 poles, 3,5 mm / .138" pitch
**CTM__0P9** - 2 ÷ 6 poles, 7 mm / .276" pitch
**CTM__0PT** - 2 ÷ 12 poles, 3.81 mm / .150" pitch
**CTM__0P7** - 2 ÷ 6 poles, 7.62 mm / .300" pitch

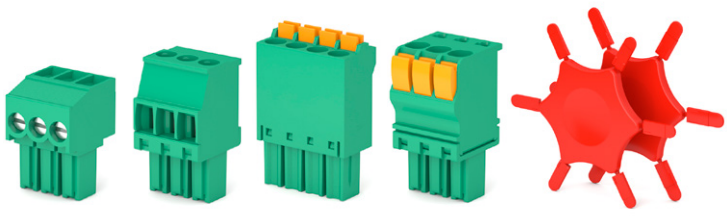


**0°, polarized**

**CTM__0P8°** - 13 ÷ 25 poles, 3,5 mm / .138" pitch
**CTM__0P9°** - 7 ÷ 13 poles, 7 mm / .276" pitch
**CTM__0PT°** - 13 ÷ 25 poles, 3.81 mm / .150" pitch
**CTM__0P7°** - 7 ÷ 13 poles, 7.62 mm / .300" pitch
**CTM__0P1°** - 2 ÷ 22 poles, 5 mm / .197" pitch
**CTM__0P2°** - 2 ÷ 11 poles, 10 mm / .394" pitch
**CTM__0P5°** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**CTM__0P6°** - 2 poles, 10.16 mm / .400" pitch

**Usable with:**

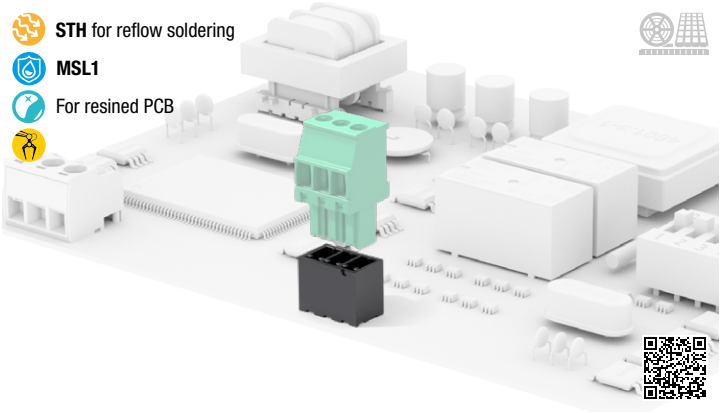
| CTF | CKF | CFF | CBF | CTM-LC1 CIF-LC1 |
|---|---|---|---|---|
| Page 58 | Page 59 | Page 60 | Page 61 | Page 83 |

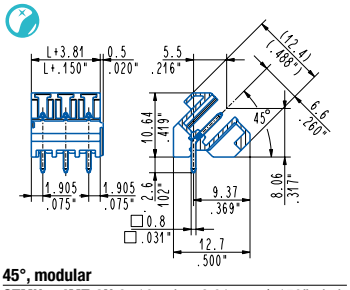


**STH** for reflow soldering

**MSL1**

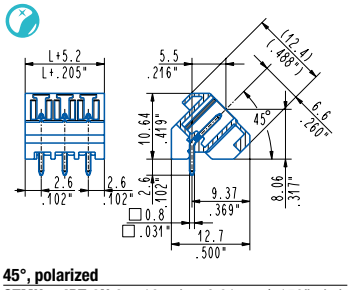
For resined PCB






**45°, modular**

**CTMH__4MT-0N** 2÷16 poles, 3,81 mm / .150" pitch
**CTMH__4M7-0N** 1÷8 poles, 7.62 mm / .300" pitch




**45°, polarized**

**CTMH__4PT-0N** 2 ÷ 16 poles, 3.81mm / .150" pitch
**CTMH__4P7-0N** 2 ÷ 8 poles, 7.62 mm / .300" pitch

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | black |
| **Pitches:** | metric 3.5, 5, 7, 10mm (.138, .197, .275, .394 in)<br>imperial 3.81, 5.08, 7.62, 10.16mm (.150, .200, .300, .400 in) |
| **PCB thickness:** | max 2,4 mm (.094 in) |
| **PCB hole diameter:** | 1.4 mm (.055 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

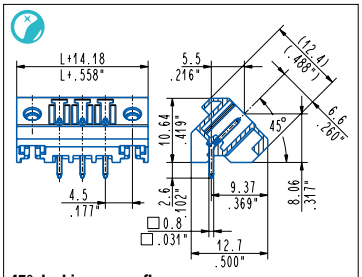
**UL (n. E167473)**
300 V - 11 A - for 3.5 mm, 3.81 mm, 5 mm, 5.08 mm, 7 mm, 7.62 mm pitch
600 V - 11 A - for 10 mm and 10.16 mm pitch

**VDE (n. 40013398)**
130 V - 11 A - for 3.5 mm and 3.81 mm pitch
250 V - 11 A - for 5 mm and 5.08 mm pitch
450 V - 11 A - for 7 mm and 7.62 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

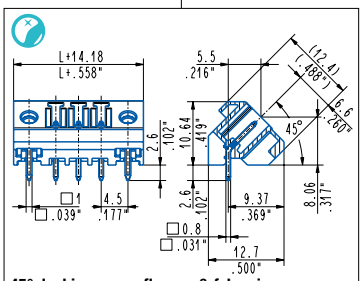
A higher number of poles is obtained by combining together **modular** parts.

Please see "CONNECTORS COMBINATIONS"



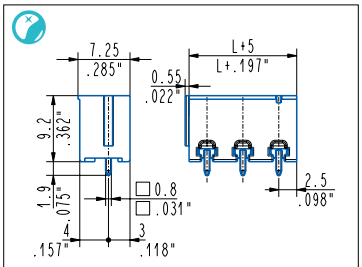

**45°, locking screw flanges**

**CTMH__4VT-0N** 2÷16 poles, 3,81 mm / .150" pitch
**CTMH__4V7-0N** 2÷8 poles, 7.62 mm / .300" pitch



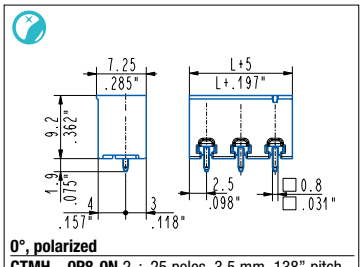

**45°, locking screw flanges & fake pin**

**CTMH__4FT-0N** 2 ÷ 16 poles, 3.81mm / .150" pitch
**CTMH__4F7-0N** 2 ÷ 8 poles, 7.62 mm / .300" pitch



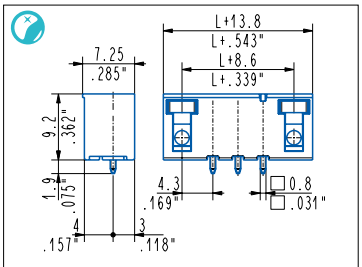

**0°, modular**

**CTMH__0M1-0N** 2 ÷ 22 poles, 5 mm .197" pitch
**CTMH__0M2-0N** 1 ÷ 11 poles, 10 mm .394" pitch
**CTMH__0M5-0N** 2 ÷ 3 poles, 5.08 mm .200" pitch
**CTMH__0M6-0N** 1÷2 poles, 10.16 mm .400" pitch



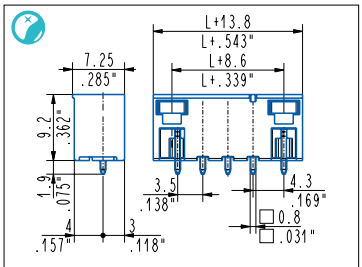

**0°, polarized**

**CTMH__0P8-0N** 2 ÷ 25 poles, 3,5 mm .138" pitch
**CTMH__0P1-0N** 2 ÷ 22 poles, 5 mm .197" pitch
**CTMH__0P9-0N** 2 ÷ 13 poles, 7 mm .276" pitch
**CTMH__0P2-0N** 2 ÷ 11 poles, 10 mm .394" pitch
**CTMH__0PT-0N** 2 ÷ 25 poles, 3.81 mm .150" pitch
**CTMH__0P5-0N** 2 ÷ 3 poles, 5,08 mm .200" pitch
**CTMH__0P7-0N** 2 ÷ 13 poles, 7.62 mm .300" pitch
**CTMH__0P6-0N** 2 poles, 10.16 mm / .400" pitch



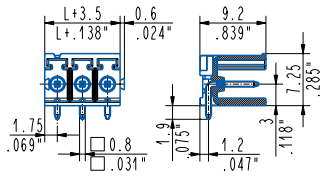

**0°, locking screw flanges**

**CTMH__0V8-0N** 2 ÷ 23 poles, 3,5 mm .138" pitch
**CTMH__0V1-0N** 2 ÷ 22 poles, 5 mm .197" pitch
**CTMH__0V9-0N** 2 ÷ 12 poles, 7 mm .276" pitch
**CTMH__0V2-0N** 2 ÷ 11 poles, 10 mm .394" pitch
**CTMH__0VT-0N** 2 ÷ 22 poles, 3.81 mm .150" pitch
**CTMH__0V7-0N** 2 ÷ 12 poles, 7.62 mm .300" pitch



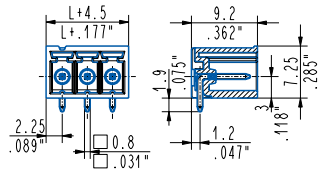

**0°, locking screw flanges & fake pin**

**CTMH__0F8-0N** 2 ÷ 23 poles, 3,5 mm .138" pitch
**CTMH__0F1-0N** 2 ÷ 22 poles, 5 mm .197" pitch
**CTMH__0F9-0N** 2 ÷ 12 poles, 7 mm .276" pitch
**CTMH__0F2-0N** 2 ÷ 11 poles, 10 mm .394" pitch
**CTMH__0FT-0N** 2 ÷ 22 poles, 3.81 mm .150" pitch
**CTMH__0F7-0N** 2 ÷ 12 poles, 7.62 mm .300" pitch




**90°, modular**

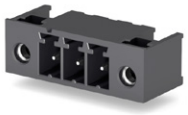
**CTMH__9M1-0N** 2÷22 poles, 5 mm / .197" pitch
**CTMH__9M2-0N** 1÷11 poles, 10 mm / .394" pitch
**CTMH__9M5-0N** 2÷3 poles, 5.08 mm / .200" pitch
**CTMH__9M6-0N** 1÷2 poles, 10.16 mm / .400" pitch

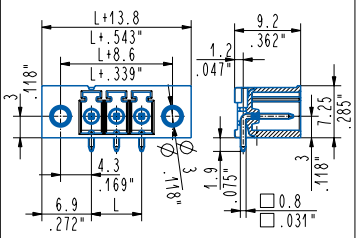



**90°, polarized**

**CTMH__9P8-0N** 2 ÷ 25 poles, 3,5 mm .138" pitch
**CTMH__9P1-0N** 2 ÷ 22 poles, 5 mm .197" pitch
**CTMH__9P9-0N** 2 ÷ 13 poles, 7 mm .276" pitch
**CTMH__9P2-0N** 2 ÷ 11 poles, 10 mm .394" pitch
**CTMH__9PT-0N** 2 ÷ 25 poles, 3.81 mm .150" pitch
**CTMH__9P5-0N** 2 ÷ 3 poles, 5,08 mm .200" pitch
**CTMH__9P7-0N** 2 ÷ 13 poles, 7.62 mm .300" pitch
**CTMH__9P6-0N** 2 poles, 10.16 mm / .400" pitch

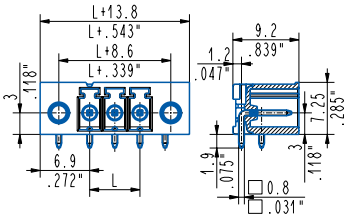
Your drawings and notes





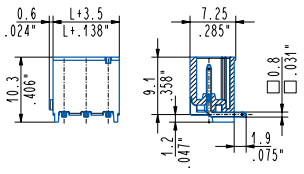

**90°, locking screw flanges**

**CTMH__9V8-0N** 2 ÷ 23 poles, 3,5 mm .138" pitch
**CTMH__9V1-0N** 2 ÷ 22 poles, 5 mm .197" pitch
**CTMH__9V9-0N** 2 ÷ 12 poles, 7 mm .276" pitch
**CTMH__9V2-0N** 2 ÷ 11 poles, 10 mm .394" pitch
**CTMH__9VT-0N** 2 ÷ 22 poles, 3.81 mm .150" pitch
**CTMH__9V7-0N** 2 ÷ 12 poles, 7.62 mm .300" pitch



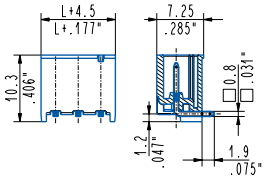

**90°, locking screw flanges & fake pin**

**CTMH__9F8-0N** 2 ÷ 23 poles, 3,5 mm .138" pitch
**CTMH__9F1-0N** 2 ÷ 22 poles, 5 mm .197" pitch
**CTMH__9F9-0N** 2 ÷ 12 poles, 7 mm .276" pitch
**CTMH__9F2-0N** 2 ÷ 11 poles, 10 mm .394" pitch
**CTMH__9FT-0N** 2 ÷ 22 poles, 3.81 mm .150" pitch
**CTMH__9F7-0N** 2 ÷ 12 poles, 7.62 mm .300" pitch



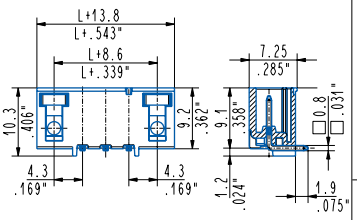

**270°, modular**

**CTMH__5M8-0N** 2 ÷ 25 poles, 3,5 mm .138" pitch
**CTMH__5M9-0N** 1 ÷ 13 poles, 7 mm .276" pitch




**270°, polarized**

**CTMH__5P8-0N** 2 ÷ 25 poles, 3,5 mm .138" pitch
**CTMH__5P9-0N** 2 ÷ 13 poles, 7 mm .276" pitch
**CTMH__5PT-0N** 2 ÷ 23 poles, 3,81 mm .150" pitch
**CTMH__5P7-0N** 2 ÷ 11 poles, 7,62 mm .300" pitch



**270°, locking screw flanges**

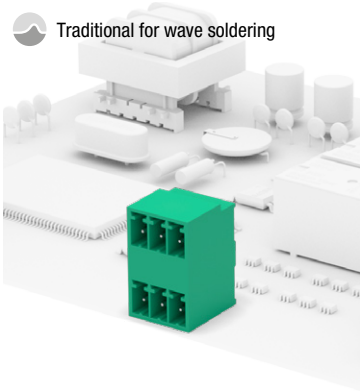
**CTMH__5V8-0N** 2 ÷ 23 poles, 3.5mm /.138" pitch
**CTMH__5V9-0N** 2 ÷ 12 poles, 7 mm /.276" pitch

**Usable with:**

| CTF | CKF | CFF | CBF |
|---|---|---|---|
| Page 58 | Page 59 | Page 60 | Page 61 |

# CTM DOUBLE

Traditional for wave soldering



# CTMH DOUBLE

**STH** for reflow soldering

**MSL1**

Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | low |
| **Standard colour:** | green for wave soldering, black for reflow soldering |
| **Pitches:** | metric 3.5, 7 mm (.138, .276 in) |
| **PCB thickness:** | max 2,4 mm (.094 in) |
| **PCB hole diameter:** | min. 1.2 mm (.055 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

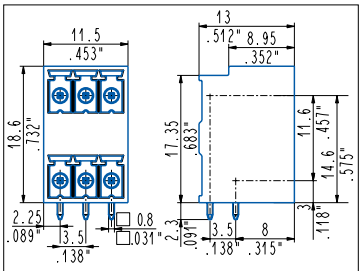
**UL (n. E167473)**
300 V - 11 A

## Data according to

**IEC EN 61984**
150 V - 11 A

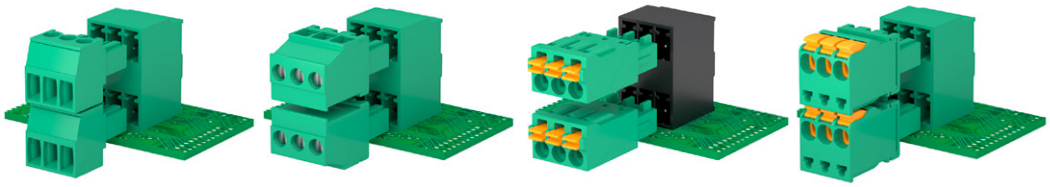
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

Please see "CONNECTORS COMBINATIONS"



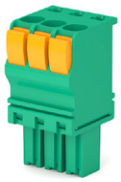

**90°, double level, polarized**

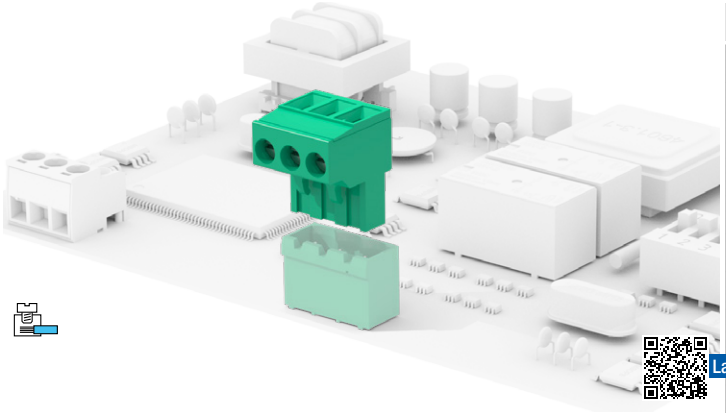
**CTM__PP8** - 2 ÷ 5 poles, 3,5 mm / .138" pitch
**CTM__PP9** - 2 ÷ 3 poles, 7 mm / .276" pitch
**CTMH__PP8-ON** - 2 ÷ 5 poles, 3,5 mm / .138" pitch
**CTMH__PP9-ON** - 2 ÷3 poles, 7 mm / .276" pitch



**Usable with:**

| CTF | CKF | CFF | CBF |
|---|---|---|---|
| Page 58 | Page 59 | Page 60 | Page 61 |





Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | green |
| **Pitches:** | metric 5, 7.5, 10 mm (.197, .295, .394 in)<br>imperial 5.08, 7.62, 10.16 mm (.200, .300, .400 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5/0.6 Nm (4.42/5.30 lbf·in) |
| **Stripping length:** | 6 ÷ 7.5 mm (.24 ÷ .30 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**
300 V - 15 A - 30÷12 AWG - for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
600 V - 15 A - 30÷12 AWG - for 10 mm and 10.16 mm pitch

**VDE (n. 40027448)**
250 V - 16 A - 2.5 mm² - for 5 mm and 5.08 mm pitch
500 V - 16 A - 2.5 mm² - for 7.5 mm and 7.62 mm pitch
750 V - 16 A - 2.5 mm² - for 10 mm and 10.16 mm pitch

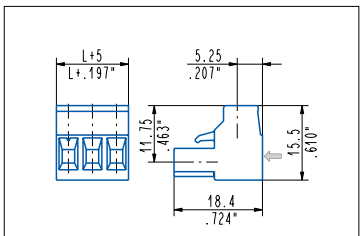
**IMQ (n. EM672)**
300 V - 12 A - 2.5 mm² - for 5 mm and 5.08 mm pitch
600 V - 12 A - 2.5 mm² - for 7.5 mm and 7.62 mm pitch
1000 V - 12 A - 2.5 mm² - for 10 mm and 10.16 mm pitch

**CSA (n. LR102896)**
300 V - 15 A - 30÷12 AWG for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
600 V - 15 A - 30÷12 AWG for 10 mm and 10.16 mm pitch

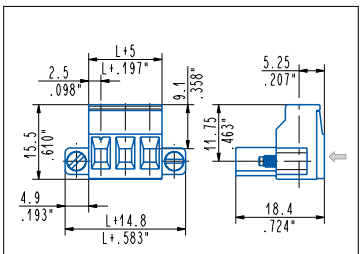
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

A higher number of poles is obtained by combining together **modular** parts.

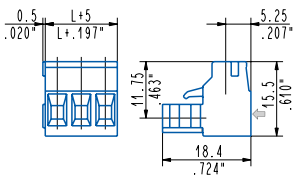
Please see "CONNECTORS COMBINATIONS"



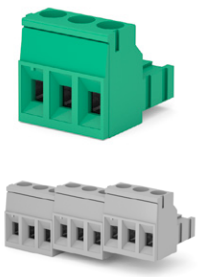

**Side stackable**
**CIF__001** - 2 ÷ 25 poles, 5 mm / .197" pitch
**CIF__003** - 2 ÷ 12 poles, 7.5 mm / .295" pitch
**CIF__002** - 2 ÷ 13 poles, 10 mm / .394" pitch
**CIF__005** - 2 ÷ 25 poles, 5.08 mm / .200" pitch
**CIF__007** - 2 ÷ 12 poles, 7.62 mm / .300" pitch
**CIF__006** - 2 ÷ 13 poles, 10.16 mm / .400" pitch

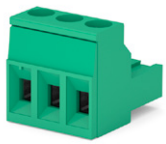



**Locking screw flanges**
**CIF__0V1** - 2 ÷ 24 poles, 5 mm / .197" pitch
**CIF__0V2** - 2 ÷ 12 poles, 10 mm / .394" pitch
**CIF__0V5** - 2 ÷ 24 poles, 5.08 mm / .200" pitch
**CIF__0V7** - 2 ÷ 12 poles, 7.62 mm / .300" pitch
**CIF__0V6** - 2 ÷ 12 poles, 10.16 mm / .400" pitch



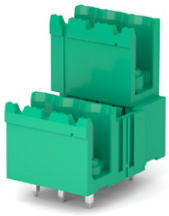

**Modular**
**CIF__0M1** - 2 ÷ 25 poles, 5 mm / .197" pitch
**CIF__0M2** - 1 ÷ 13 poles, 10 mm / .394" pitch
**CIF__0M5** - 2 ÷ 25 poles, 5.08 mm / .200" pitch
**CIF__0M6** - 1 ÷ 13 poles, 10.16 mm / .400" pitch

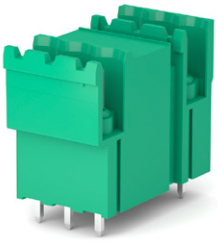


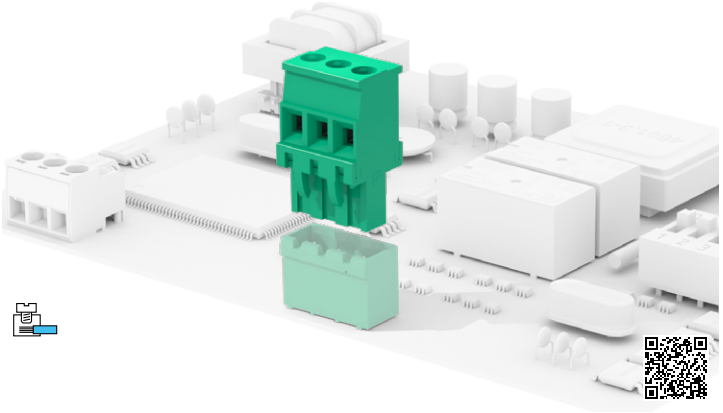


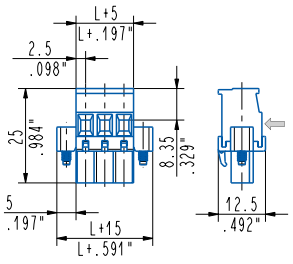
## Usable with:

| CIM | CIMH | CPM high | CPM/CPMH | CRM | CIMH normo | CGM | CIF-LC1 |
|---|---|---|---|---|---|---|---|
| Page 71 | Page 73 | Page 75 | Page 76 | Page 77 | Page 78 | Page 79 | Page 83 |



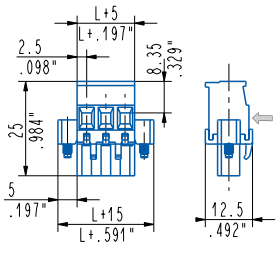







**Left, locking screw flanges**

**CVF__0S1** - 2 ÷ 8 poles, 5 mm / .197" pitch
**CVF__0S2** - 2 ÷ 4 poles, 10 mm / .394" pitch
**CVF__0S5** - 2 ÷ 23 poles, 5.08 mm / .200" pitch
**CVF__0S7** - 2 ÷ 12 poles, 7.62 mm / .300" pitch
**CVF__0S6** - 2 ÷ 12 poles, 10.16 mm / .400" pitch

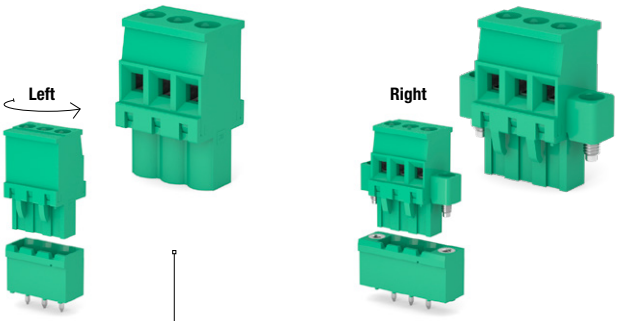



**Right, locking screw flanges**

**CVF__0D1** - 2 ÷ 8 poles, 5 mm / .197" pitch
**CVF__0D2** - 2 ÷ 4 poles, 10 mm / .394" pitch
**CVF__0D5** - 2 ÷ 23 poles, 5.08 mm / .200" pitch
**CVF__0D7** - 2 ÷ 12 poles, 7.62 mm / .300" pitch
**CVF__0D6** - 2 ÷ 12 poles, 10.16 mm / .400" pitch

## General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 7.5 mm, 10 mm (.197 in, .295 in, .394 in)<br>imperial 5.08, 7.62, 10.16 mm (.200, .300, .400 in) |
| **Screw dimension:** | M3 |
| **Recommended/Highest tightening torque:** | 0.5/0.6 Nm (4.42/5.3 lbf·in) |
| **Stripping length:** | 6 ÷ 7.5 mm (.24 ÷ .30 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |




## Certifications

**UL (n. E167473)**
300 V - 15 A - 30÷12 AWG - for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
600 V - 15 A - 30÷12 AWG - for 10 mm and 10.16 mm pitch

**VDE (n. 40027448)**
250 V - 16 A - 2.5 mm² - for 5 mm and 5.08 mm pitch
500 V - 16 A - 2.5 mm² - for 7.5 mm and 7.62 mm pitch
750 V - 16 A - 2.5 mm² - for 10 mm and 10.16 mm pitch

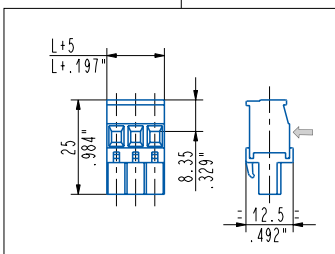
**IMQ (n. EM672)**
300 V - 12 A - 2.5 mm² - 2.5 mm² for 5 mm and 5.08 mm pitch
1000 V - 12 A - 2.5 mm² - 2.5 mm² for 10 mm, 7.5 mm, 7.62 and 10.16 mm pitch

**CSA (n. LR102896)**
300 V - 15 A - 30÷12 AWG for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
600 V - 15 A - 30÷12 AWG for 10 mm and 10.16 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

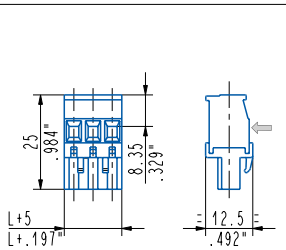
A higher number of poles is obtained by combining together **modular** parts.

Please see "CONNECTORS COMBINATIONS"



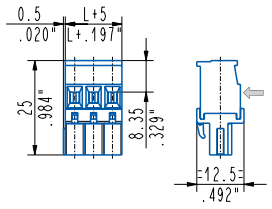

**Left, side stackable**

**CVF__0L1** - 2 ÷ 25 poles, 5 mm / .197" pitch
**CVF__0L3** - 2 ÷ 12 poles, 7.5 mm / .295" pitch
**CVF__0L2** - 2 ÷ 13 poles, 10 mm / .394" pitch
**CVF__0L5** - 2 ÷ 25 poles, 5.08 mm / .200" pitch
**CVF__0L7** - 2 ÷ 12 poles, 7.62 mm / .300" pitch
**CVF__0L6** - 2 ÷ 13 poles, 10.16 mm / .400" pitch



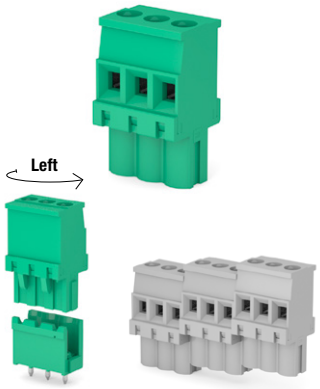

**Right, side stackable**

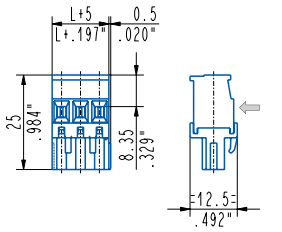
**CVF__0R1** - 2 ÷ 25 poles, 5 mm / .197" pitch
**CVF__0R3** - 2 ÷ 12 poles, 7.5 mm / .295" pitch
**CVF__0R2** - 2 ÷ 13 poles, 10 mm / .394" pitch
**CVF__0R5** - 2 ÷ 25 poles, 5.08 mm / .200" pitch
**CVF__0R7** - 2 ÷ 12 poles, 7.62 mm / .300" pitch
**CVF__0R6** - 2 ÷ 13 poles, 10.16 mm / .400" pitch




**Left, modular**

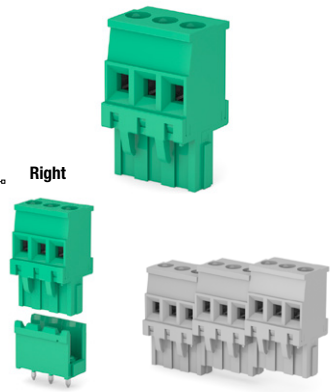
**CVF__0W1** - 2 ÷ 23 poles, 5 mm / .197" pitch
**CVF__0W2** - 1 ÷ 13 poles, 10 mm / .394" pitch
**CVF__0W5** - 2 ÷ 23 poles, 5.08 mm / .200" pitch
**CVF__0W6** - 1 ÷ 13 poles, 10.16 mm / .400" pitch



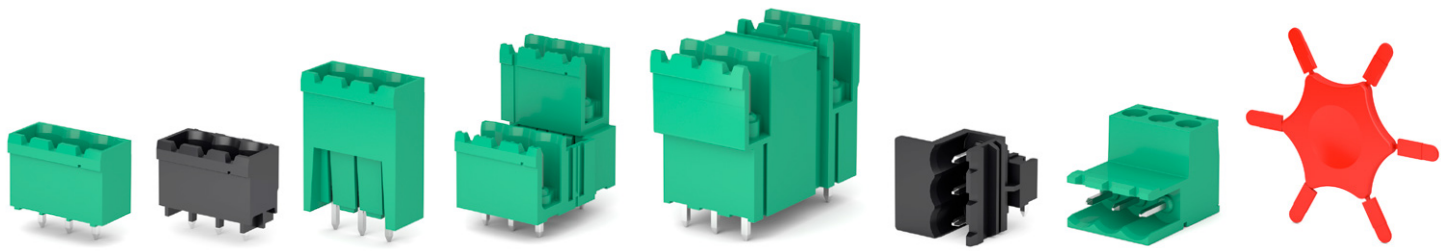

**Right, modular**

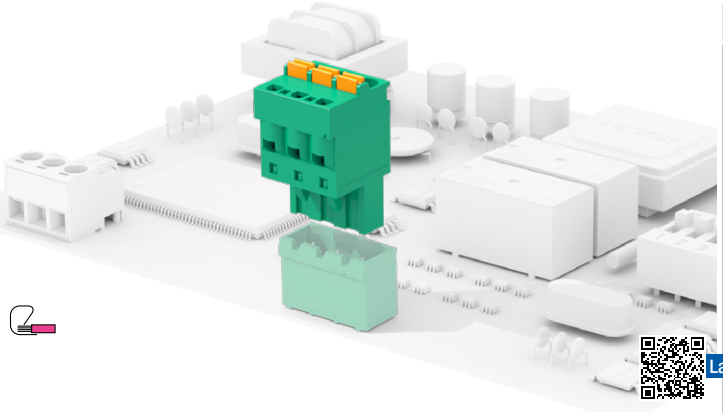
**CVF__0M1** - 2 ÷ 23 poles, 5 mm / .197" pitch
**CVF__0M2** - 1 ÷ 13 poles, 10 mm / .394" pitch
**CVF__0M5** - 2 ÷ 23 poles, 5.08 mm / .200" pitch
**CVF__0M6** - 1 ÷ 13 poles, 10.16 mm / .400" pitch




## Usable with:

| CIM | CIMH | CPM high | CPM/CPMH | CRM | CIMH normo | CGM | CIF-LC1 |
|---|---|---|---|---|---|---|---|
| Page 71 | Page 73 | Page 75 | Page 76 | Page 77 | Page 78 | Page 79 | Page 83 |





Last release

Your drawings and notes

### General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 10 mm (.197 in, .394 in)<br>imperial 5.08 mm, 10.16 mm (.200 in, .400 in) |
| **Stripping length:** | 10 mm (.39 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | $>10^9$ Ω (500V DC) |

### Certifications

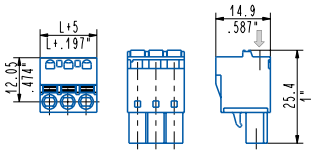
**UL (n. E167473)**
300 V - 12 A - 30÷12 AWG stranded for 5 mm (.197 in), 5.08 mm (.200 in) pitch
600 V - 12 A - 30÷12 AWG stranded for 10 mm (.394 in) and 10.16 mm (.400 in) pitch

### Data according to

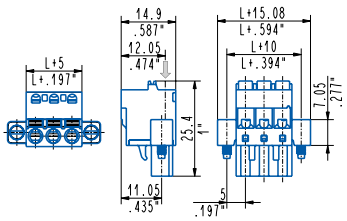
**IEC EN 61984**
300 V - 12 A - 2.5 mm² - for 5 mm and 5.08 mm pitch
600 V - 12 A - 2.5 mm² - for 10 mm and 10.16 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

Please see "CONNECTORS COMBINATIONS"



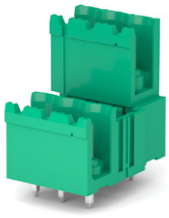
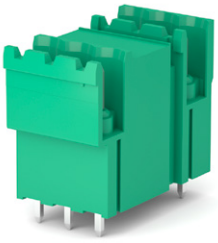
**Side stackable**
**CCF__001** - 2 ÷ 18 poles, 5 mm / .197" pitch
**CCF__002** - 2 ÷ 9 poles, 10 mm / .394" pitch
**CCF__005** - 2 ÷ 22 poles, 5.08 mm / .200" pitch
**CCF__006** - 2 ÷ 11 poles, 10.16 mm / .400" pitch

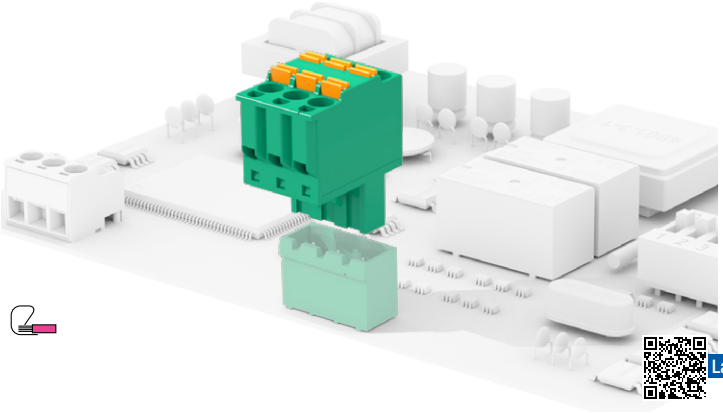


**Locking screw flanges**
**CCF__0V1** - 2 ÷ 21 poles, 5 mm / .197" pitch
**CCF__0V2** - 2 ÷ 10 poles, 10 mm / .394" pitch
**CCF__0V5** - 2 ÷ 22 poles, 5.08 mm / .200" pitch
**CCF__0V6** - 2 ÷ 11 poles, 10.16 mm / .400" pitch

## Usable with:

| CIM | CIMH | CPM high | CPM/CPMH | CRM | CIMH normo | CGM | CIF-LC1 |
|---|---|---|---|---|---|---|---|
| Page 71 | Page 73 | Page 75 | Page 76 | Page 77 | Page 78 | Page 79 | Page 83 |



Last release

Your drawings and notes

### General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 10 mm (.197 in, .394 in) |
| **Stripping length:** | 10 mm (.39 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

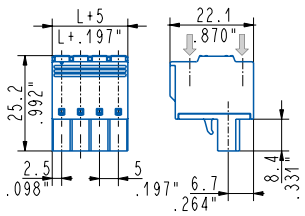
### Data according to

**UL 1059**
300 V - 12 A - 30÷12 AWG stranded for 5 mm (.197 in) pitch
600 V - 12 A - 30÷12 AWG stranded for 10 mm (.394 in) pitch

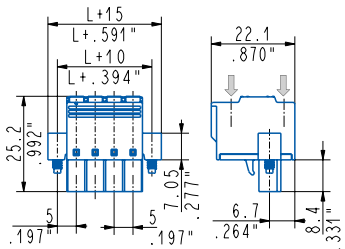
**IEC EN 61984**
300 V - 12 A - 2.5 mm² - for 5 mm pitch
600 V - 12 A - 2.5 mm² - for 10 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

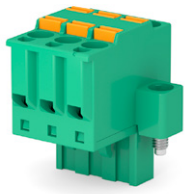
Please see "CONNECTORS COMBINATIONS"




**Side stackable, double wire entry**
**CCF__D01** - 2 ÷ 6 poles, 5 mm / .197" pitch
**CCF__D02** - 2 ÷ 3 poles, 10 mm / .394" pitch




**Locking screw flanges, double wire entry**
**CCF__DV1** - 2 ÷ 6 poles, 5 mm / .197" pitch
**CCF__DV2** - 2 ÷ 3 poles, 10 mm / .394" pitch



**Usable with:**

| CIM | CIMH | CPM high | CIMH normo | CGM | CIF-LC1 |
|---|---|---|---|---|---|
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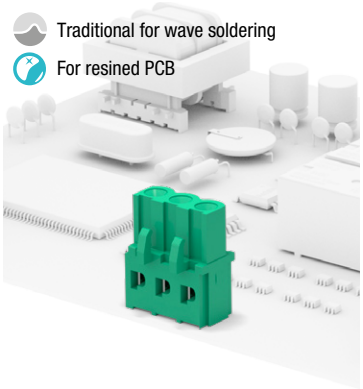
L = pitch x (poles - 1)

The drawing refers to only a pitch, please see our complete range of products by visiting our website on **www.sauro.net** or refering to your representative Sales Manager

# CGF

Traditional for wave soldering

For resined PCB



# CGFH

**STH** for reflow soldering

**MSL1**

Last release

## General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 7.5 mm, 10 mm (.197 in, .295 in, .394 in)<br>imperial 5.08 mm, 7.62 mm, 10.16 mm (.200 in, .300 in, .400 in) |
| **PCB thickness:** | max 2.4 mm (.094 in) |
| **PCB hole diameter:** | min 1.4 mm (.055 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473) - CGF, CGFH**
300 V - 15 A - for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
600 V - 15 A - for 10 mm and 10.16 mm pitch

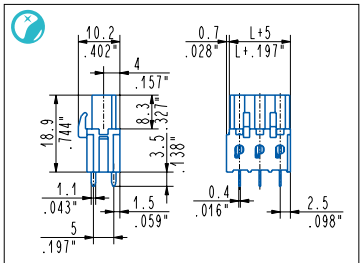
**VDE (n. 40027448) - CGF**
250 V - 16 A - for 5 mm and 5.08 mm pitch
500 V - 16 A - for 7.5 mm and 7.62 mm pitch
750 V - 16 A - for 10 mm and 10.16 mm pitch

**IMQ (n. EM672) - CGF**
300 V - 12 A - for 5 mm and 5.08 mm pitch
600 V - 12 A - for 7.5 mm and 7.62 mm pitch
1000 V - 12 A - for 10 mm and 10.16 mm pitch

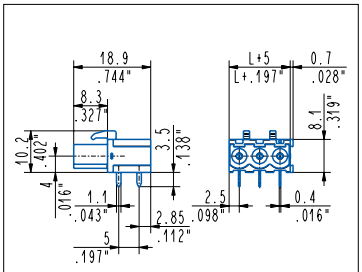
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

A higher number of poles is obtained by combining together **modular** parts.

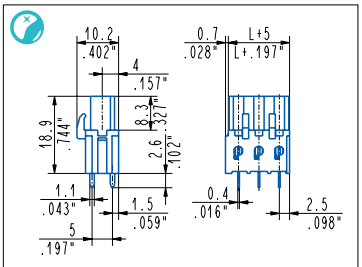
Please see "CONNECTORS COMBINATIONS"



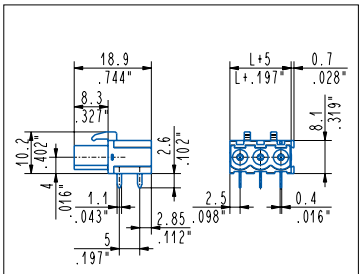

**0°, modular**
**CGF__0M1** - 2 ÷ 6 poles, 5 mm / .197" pitch
**CGF__0M3** - 2 ÷ 4 poles, 7.5 mm / .295" pitch
**CGF__0M2** - 1 ÷ 3 poles, 10 mm / .394" pitch
**CGF__0M5** - 2 ÷ 4 poles, 5.08 mm / .200" pitch
**CGF__0M7** - 2 ÷ 4 poles, 7.62 mm / .300" pitch
**CGF__0M6** - 1 ÷ 2 poles, 10.16 mm / .400" pitch



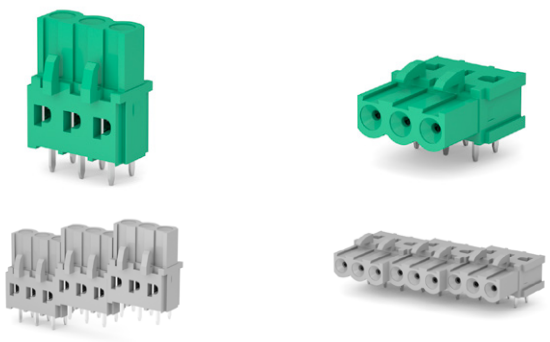

**90°, modular**
**CGF__9M1** - 2 ÷ 6 poles, 5 mm / .197" pitch
**CGF__9M3** - 2 ÷ 4 poles, 7.5 mm / .295" pitch
**CGF__9M2** - 1 ÷ 3 poles, 10 mm / .394" pitch
**CGF__9M5** - 2 ÷ 4 poles, 5.08 mm / .200" pitch
**CGF__9M7** - 2 ÷ 4 poles, 7.62 mm / .300" pitch
**CGF__9M6** - 1 ÷ 2 poles, 10.16 mm / .400" pitch




**0°, modular**
**CGFH__0M1-0N** 2÷6 poles, 5 mm / .197" pitch
**CGFH__0M3-0N** 2÷4 poles, 7.5 mm / .295" pitch
**CGFH__0M2-0N** 1÷3 poles, 10 mm / .394" pitch
**CGFH__0M5-0N** 2÷4 poles, 5.08 mm / .200" pitch
**CGFH__0M7-0N** 2÷4 poles, 7.62 mm / .300" pitch
**CGFH__0M6-0N** 1÷2 poles, 10.16 mm / .400" pitch

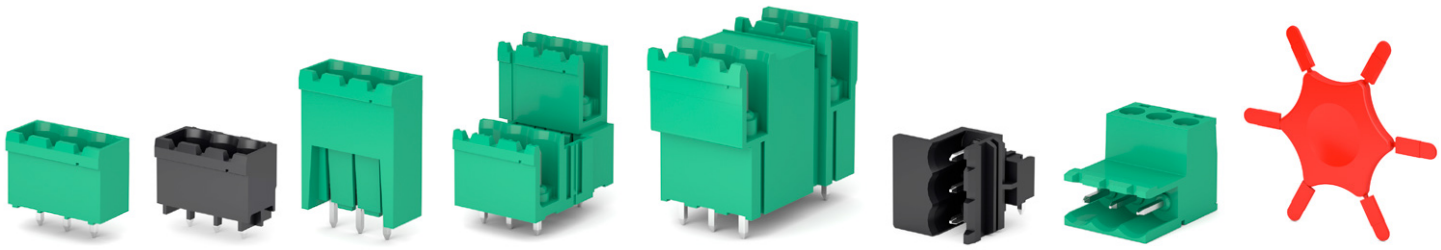



**90°, modular**
**CGFH__9M1-0N** 2÷6 poles, 5 mm / .197" pitch
**CGFH__9M3-0N** 2÷4 poles, 7.5 mm / .295" pitch
**CGFH__9M2-0N** 1÷3 poles, 10 mm / .394" pitch
**CGFH__9M5-0N** 2÷4 poles, 5.08 mm / .200" pitch
**CGFH__9M7-0N** 2÷4 poles, 7.62 mm / .300" pitch
**CGFH__9M6-0N** 1÷2 poles, 10.16 mm / .400" pitch



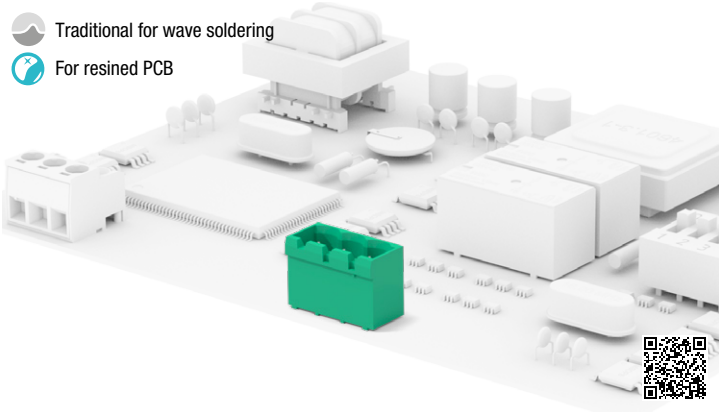
## Usable with:

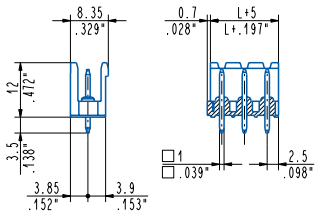
| CIM | CIMH | CPM high | CPM/CPMH | CRM | CIMH normo | CGM | CIF-LC1 |
|---|---|---|---|---|---|---|---|
| Page 71 | Page 73 | Page 75 | Page 76 | Page 77 | Page 78 | Page 79 | Page 83 |



Traditional for wave soldering

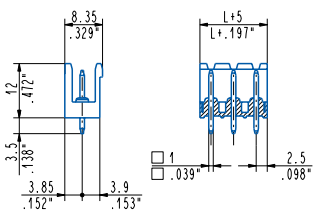
For resined PCB





**0°, modular**

**CIM__0M1** - 2 ÷ 25 poles, 5 mm / .197" pitch
**CIM__0M2** - 1 ÷ 13 poles, 10 mm / .394" pitch
**CIM__0M5** - 2 ÷ 25 poles, 5.08 mm / .200" pitch
**CIM__0M6** - 1 ÷ 13 poles, 10.16 mm / .400" pitch

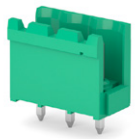


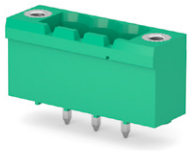
**0°, side stackable**

**CIM__0A1** - 2 ÷ 25 poles, 5 mm / .197" pitch
**CIM__0A3** - 2 ÷ 12 poles, 7.5 mm / .295" pitch
**CIM__0A2** - 2 ÷ 13 poles, 10 mm / .394" pitch
**CIM__0A5** - 2 ÷ 25 poles, 5.08 mm / .200" pitch
**CIM__0A7** - 2 ÷ 12 poles, 7.62 mm / .300" pitch
**CIM__0A6** - 2 ÷ 13 poles, 10.16 mm / .400" pitch

## General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 7.5 mm, 10 mm (.197 in, .295 in, .394 in)<br>imperial 5.08, 7.62, 10.16 mm (.200, .300, .400 in) |
| **PCB thickness:** | max 2.4 mm (.094 in) |
| **PCB hole diameter:** | min 1.4 mm (.055 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |





## Certifications

**UL (n. E167473)**
300 V - 15 A - for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
600 V - 15 A - for 10 mm and 10.16 mm pitch

**VDE (n. 40027448)**
250 V - 16 A - 2 for 5 mm and 5.08 mm pitch
500 V - 16 A - 2 for 7.5 mm and 7.62 mm pitch
750 V - 16 A - 2 for 10 mm and 10.16 mm pitch

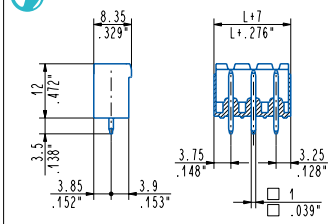
**IMQ (n. EM672)**
300 V - 12 A - for 5 mm and 5.08 mm pitch
600 V - 12 A - for 7.5 mm and 7.62 mm pitch
1000 V - 12 A - for 10 mm and 10.16 mm pitch

**CSA (n. LR102896)**
300 V - 15 A - for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
600 V - 15 A - for 10 mm and 10.16 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

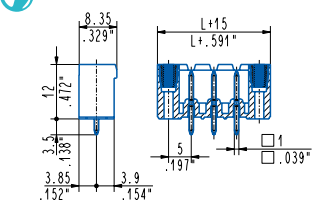
A higher number of poles is obtained by combining together **modular** parts.

Please see "CONNECTORS COMBINATIONS"



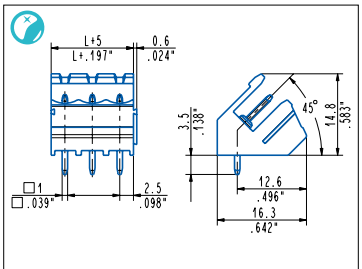
**0°, polarized**

**CIM__0P1** - 2 ÷ 25 poles, 5 mm / .197" pitch
**CIM__0P3** - 2 ÷ 12 poles, 7.5 mm / .295" pitch
**CIM__0P2** - 2 ÷ 13 poles, 10 mm / .394" pitch
**CIM__0P5** - 2 ÷ 25 poles, 5.08 mm / .200" pitch
**CIM__0P7** - 2 ÷ 12 poles, 7.62 mm / .300" pitch
**CIM__0P6** - 2 ÷ 13 poles, 10.16 mm / .400" pitch



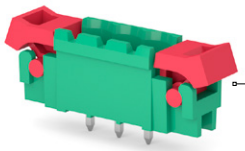
**0°, locking screw flanges**

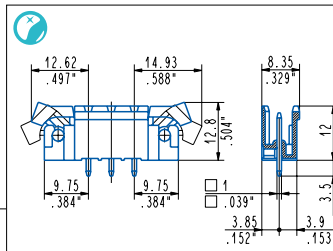
**CIM__0V1** - 2 ÷ 24 poles, 5 mm / .197" pitch
**CIM__0V2** - 2 ÷ 12 poles, 10 mm / .394" pitch
**CIM__0V5** - 2 ÷ 24 poles, 5.08 mm / .200" pitch
**CIM__0V7** - 2 ÷ 12 poles, 7.62 mm / .300" pitch
**CIM__0V6** - 2 ÷ 12 poles, 10.16 mm / .400" pitch



**45°, modular**

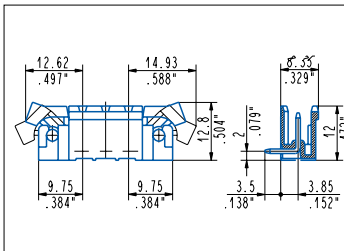
**CIM__4M1** - 2 ÷ 25 poles, 5 mm / .197" pitch
**CIM__4M2** - 1 ÷ 13 poles, 10 mm / .394" pitch
**CIM__4M5*** - 2 ÷ 8 poles, 5.08 mm / .200" pitch
**CIM__4M6**** - 1 ÷ 4 poles, 10.16 mm / .400" pitch
*max 8 poles can be combined
**max 4 poles can be combined





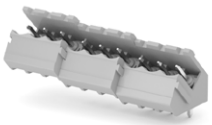
**0°, ejectors**

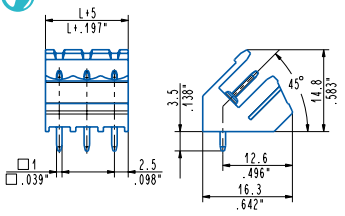
**CIM__0E1** - 2 ÷ 8 poles, 5 mm / .197" pitch
**CIM__0E2** - 2 ÷ 4 poles, 10 mm / .394" pitch
**CIM__0E5** - 2 ÷ 21 poles, 5.08 mm / .200" pitch
**CIM__0E6** - 2 ÷ 11 poles, 10.16 mm / .400" pitch



**90°, ejectors**

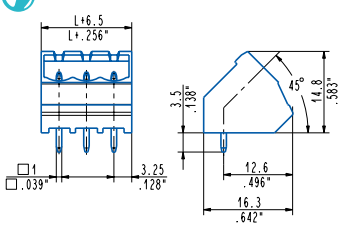
**CIM__9E1** - 2 ÷ 8 poles, 5 mm / .197" pitch
**CIM__9E2** - 2 ÷ 4 poles, 10 mm / .394" pitch
**CIM__9E5** - 2 ÷ 21 poles, 5.08 mm / .200" pitch
**CIM__9E6** - 2 ÷ 11 poles, 10.16 mm / .400" pitch





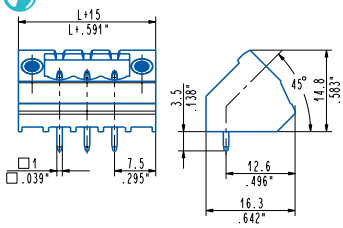
**45°, side stackable**

**CIM__4A1** - 2 ÷ 25 poles, 5 mm / .197" pitch
**CIM__4A2** - 2 ÷ 13 poles, 10 mm / .394" pitch
**CIM__4A5*** - 2 ÷ 8 poles, 5.08 mm / .200" pitch
**CIM__4A6**** - 2 ÷ 4 poles, 10.16 mm / .400" pitch
*max 8 poles can be combined
**max 4 poles can be combined



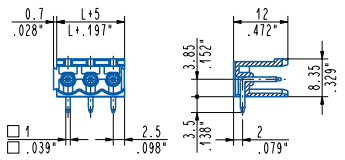
**45°, polarized**

**CIM__4P1** - 2 ÷ 25 poles, 5 mm / .197" pitch
**CIM__4P2** - 2 ÷ 13 poles, 10 mm / .394" pitch
**CIM__4P5*** - 2 ÷ 8 poles, 5.08 mm / .200" pitch
**CIM__4P6**** - 2 ÷ 4 poles, 10.16 mm / .400" pitch
*max 8 poles can be combined
**max 4 poles can be combined



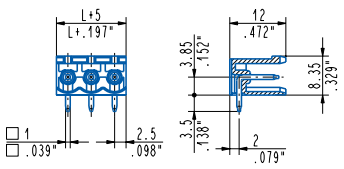
**45°, locking screw flanges**

**CIM__4V1** - 2 ÷ 23 poles, 5 mm / .197" pitch
**CIM__4V2** - 2 ÷ 12 poles, 10 mm / .394" pitch
**CIM__4V5** - 2 ÷ 8 poles, 5.08 mm / .200" pitch
**CIM__4V6** - 2 ÷ 4 poles, 10.16 mm / .400" pitch



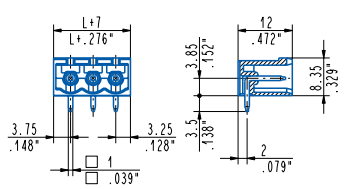
**90°, modular**

**CIM__9M1** - 2 ÷ 25 poles, 5 mm / .197” pitch
**CIM__9M2** - 1 ÷ 13 poles, 10 mm / .394” pitch
**CIM__9M5** - 2 ÷ 25 poles, 5.08 mm / .200” pitch
**CIM__9M6** - 1 ÷ 13 poles, 10.16 mm / .400” pitch



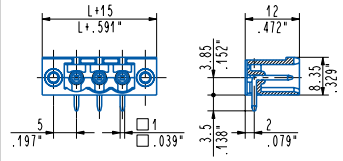
**90°, side stackable**

**CIM__9A1** - 2 ÷ 25 poles, 5 mm / .197” pitch
**CIM__9A3** - 2 ÷ 12 poles, 7.5 mm / .295” pitch
**CIM__9A2** - 2 ÷ 13 poles, 10 mm / .394” pitch
**CIM__9A5** - 2 ÷ 25 poles, 5.08 mm / .200” pitch
**CIM__9A7** - 2 ÷ 12 poles, 7.62 mm / .300” pitch
**CIM__9A6** - 2 ÷ 13 poles, 10.16 mm / .400” pitch



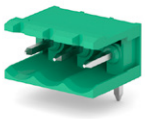
**90°, polarized**

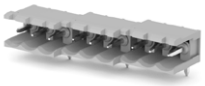
**CIM__9P1** - 2 ÷ 25 poles, 5 mm / .197” pitch
**CIM__9P3** - 2 ÷ 12 poles, 7.5 mm / .295” pitch
**CIM__9P2** - 2 ÷ 13 poles, 10 mm / .394” pitch
**CIM__9P5** - 2 ÷ 25 poles, 5.08 mm / .200” pitch
**CIM__9P7** - 2 ÷ 12 poles, 7.62 mm / .300” pitch
**CIM__9P6** - 2 ÷ 13 poles, 10.16 mm / .400” pitch

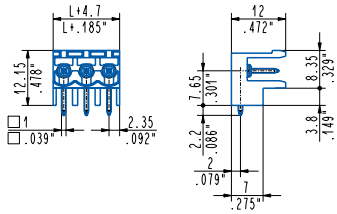


**90°, locking screw flanges**

**CIM__9V1** - 2 ÷ 24 poles, 5 mm / .197” pitch
**CIM__9V2** - 2 ÷ 12 poles, 10 mm / .394” pitch
**CIM__9V5** - 2 ÷ 24 poles, 5.08 mm / .200” pitch
**CIM__9V7** - 2 ÷ 12 poles, 7.62 mm / .300” pitch
**CIM__9V6** - 2 ÷ 12 poles, 10.16 mm / .400” pitch

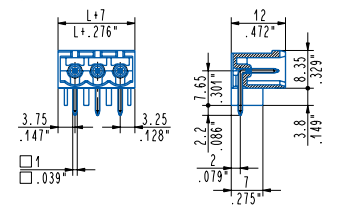






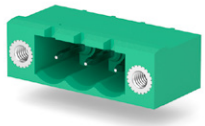
**90°, side stackable with stand-off**

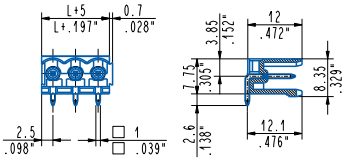
**CIM__RA1** - 2 ÷ 8 poles, 5 mm / .197” pitch
**CIM__RA2** - 2 ÷ 4 poles, 10 mm / .394” pitch



**90°, polarized male with stand-off**

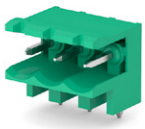
**CIM__RP1** - 2 ÷ 8 poles, 5 mm / .197” pitch
**CIM__RP2** - 2 ÷ 4 poles, 10 mm / .394” pitch

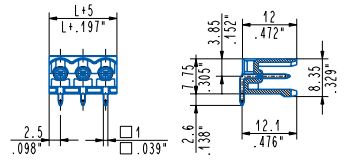




**270°, modular**

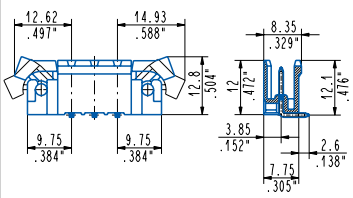
**CIM__5M1** - 2 ÷ 25 poles, 5 mm / .197” pitch
**CIM__5M2** - 1 ÷ 13 poles, 10 mm / .394” pitch
**CIM__5M5** - 2 ÷ 25 poles, 5.08 mm / .200” pitch
**CIM__5M6** - 1 ÷ 13 poles, 10.16 mm / .400” pitch





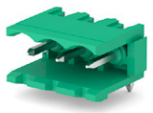
**270°, side stackable**

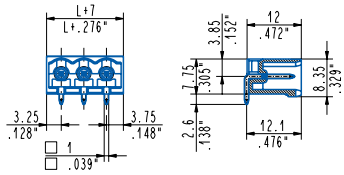
**CIM__5A1** - 2 ÷ 25 poles, 5 mm / .197” pitch
**CIM__5A3** - 2 ÷ 12 poles, 7.5 mm / .295” pitch
**CIM__5A2** - 2 ÷ 13 poles, 10 mm / .394” pitch
**CIM__5A5** - 2 ÷ 25 poles, 5.08 mm / .200” pitch
**CIM__5A7** - 2 ÷ 12 poles, 7.62 mm / .300” pitch
**CIM__5A6** - 2 ÷ 13 poles, 10.16 mm / .400” pitch



**270°, ejector ears**

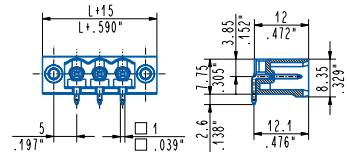
**CIM__5E1** - 2 ÷ 8 poles, 5 mm / .197” pitch
**CIM__5E2** - 2 ÷ 4 poles, 10 mm / .394” pitch
**CIM__5E5** - 2 ÷ 21 poles, 5.08 mm / .200” pitch
**CIM__5E6** - 2 ÷ 11 poles, 10.16 mm / .400” pitch





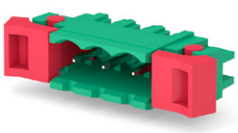
**270°, polarized**

**CIM__5P1** - 2 ÷ 25 poles, 5 mm / .197” pitch
**CIM__5P3** - 2 ÷ 12 poles, 7.5 mm / .295” pitch
**CIM__5P2** - 2 ÷ 13 poles, 10 mm / .394” pitch
**CIM__5P5** - 2 ÷ 25 poles, 5.08 mm / .200” pitch
**CIM__5P7** - 2 ÷ 12 poles, 7.62 mm / .300” pitch
**CIM__5P6** - 2 ÷ 13 poles, 10.16 mm / .400” pitch



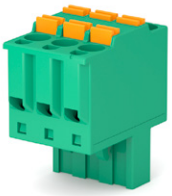
**270°, locking screw flanges**

**CIM__5V1** - 2 ÷ 24 poles, 5 mm / .197” pitch
**CIM__5V2** - 2 ÷ 12 poles, 10 mm / .394” pitch
**CIM__5V5** - 2 ÷ 24 poles, 5.08 mm / .200” pitch
**CIM__5V7** - 2 ÷ 12 poles, 7.62 mm / .300” pitch
**CIM__5V6** - 2 ÷ 12 poles, 10.16 mm / .400” pitch



## Usable with:

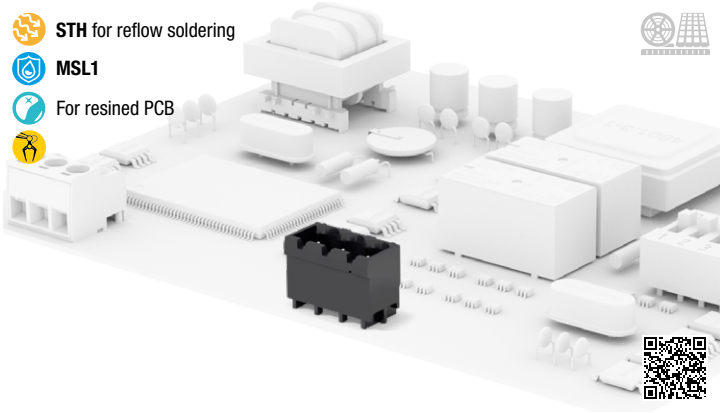
| CIF | CVF | CCF | CCF double | CGF/CGFH | CIM-SC1 |
|---|---|---|---|---|---|
| Page 66 | Page 67 | Page 68 | Page 69 | Page 70 | Page 83 |

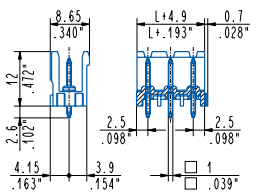


**STH** for reflow soldering

**MSL1**

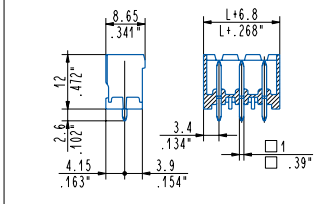
For resined PCB





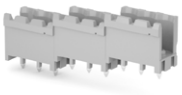

**0°, modular**

**CIMH__0M1-0N** 2 ÷ 8 poles, 5 mm / .197" pitch




**0°, polarized**

**CIMH__0P1-0N** 2 ÷ 20 poles, 5 mm/.197" pitch
**CIMH__0P3-0N** 2 ÷ 5 poles, 7.5 mm/.295" pitch
**CIMH__0P2-0N** 2 ÷ 10 poles, 10 mm/.394" pitch
**CIMH__0P5-0N** 2 ÷ 25 poles, 5.08 mm/.200" pitch
**CIMH__0P7-0N** 2 ÷ 5 poles, 7.62 mm/.300" pitch
**CIMH__0P6-0N** 2 ÷ 13 poles, 10.16 mm/.400" pitch



## General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 7.5 mm, 10 mm (.197 in, .295 in, .394 in)<br>imperial 5.08 mm, 7.62 mm, 10.16 mm (.200 in, .300 in, .400 in) |
| **PCB thickness:** | max 2.4 mm (.094 in) |
| **PCB hole diameter:** | min 1.5 mm (.059 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**
300 V - 15 A - for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
600 V - 15 A - for 10 mm and 10.16 mm pitch

**VDE (n. 40027448)**
250 V - 16 A - for 5 mm and 5.08 mm pitch
750 V - 16 A - for 10 mm and 10.16 mm pitch

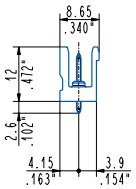
## Data according to

**IEC EN 61984**
500 V - 16 A - for 7.5 mm and 7.62 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

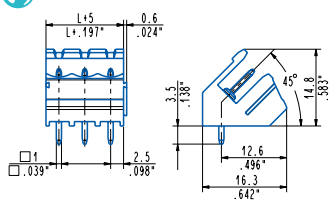
A higher number of poles is obtained by combining together **modular** parts.

Please see "CONNECTORS COMBINATIONS"



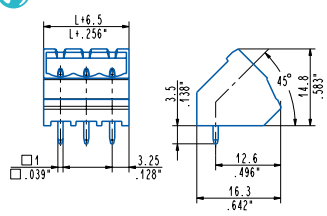

**0°, side stackable**

**CIMH__0A1-0N** 2 ÷ 20 poles, 5 mm/.197" pitch
**CIMH__0A3-0N** 2 ÷ 5 poles, 7.5 mm/.295" pitch
**CIMH__0A2-0N** 2 ÷ 10 poles, 10 mm/.394" pitch
**CIMH__0A5-0N** 2 ÷ 25 poles, 5.08 mm/.200" pitch
**CIMH__0A7-0N** 2 ÷ 5 poles, 7.62 mm/.300" pitch
**CIMH__0A6-0N** 2 ÷ 13 poles, 10.16 mm/.400" pitch



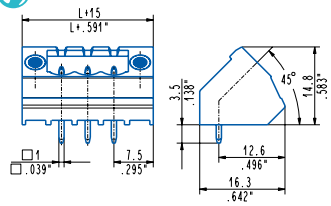

**45°, modular**

**CIMH__4M1-0N** 2 ÷ 5 poles, 5 mm / .197" pitch
**CIMH__4M5-0N** 2 ÷ 5 poles, 5.08 mm / .200" pitch



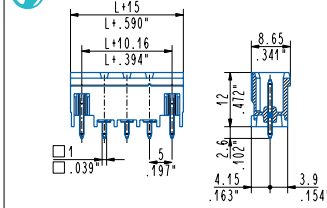

**45°, polarized**

**CIMH__4P1-0N** 2 ÷ 5 poles, 5 mm / .197" pitch
**CIMH__4P2-0N** 2 ÷ 3 poles, 10 mm / .394" pitch
**CIMH__4P5-0N** 2 ÷ 5 poles, 5.08 mm / .200" pitch
**CIMH__4P6-0N** 2 ÷ 3 poles, 10.16 mm / .400" pitch



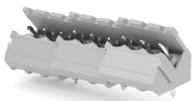

**45°, locking screw flanges**

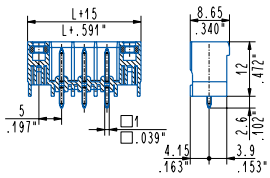
**CIMH__4V1-0N** 2 ÷ 5 poles, 5 mm / .197" pitch
**CIMH__4V5-0N** 2 ÷ 5 poles, 5.08 mm / .200" pitch




**0°, locking screw flanges & fake pin**

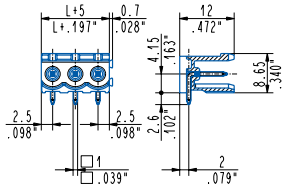
**CIMH__0F1-0N** 2÷20 poles, 5 mm / .197" pitch
**CIMH__0F5-0N** 2÷24 poles, 5.08 mm / .200" pitch



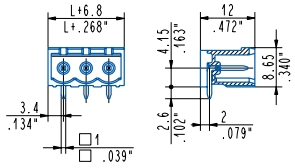



**0°, locking screw flanges**

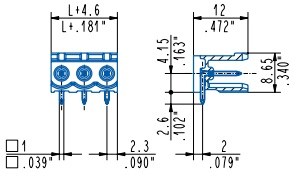
**CIMH__0V1-0N** 2÷20 poles, 5 mm / .197" pitch
**CIMH__0V2-0N** 2÷10 poles, 10 mm / .394" pitch
**CIMH__0V5-0N** 2÷24 poles, 5.08 mm / .200" pitch
**CIMH__0V7-0N** 2÷5 poles, 7.62 mm / .300" pitch
**CIMH__0V6-0N** 2÷12 poles, 10.16 mm / .400" pitch



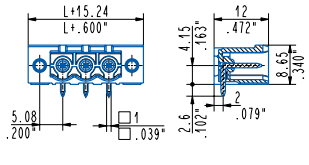

**90°, modular**
**CIMH__9M1-0N** 2 ÷ 8 poles, 5 mm / .197" pitch



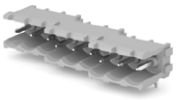

**90°, polarized**
**CIMH__9P1-0N** 2 ÷ 19 poles, 5 mm/.197" pitch
**CIMH__9P3-0N** 2 ÷ 5 poles, 7.5 mm/.295" pitch
**CIMH__9P2-0N** 2 ÷ 10 poles, 10 mm/.394" pitch
**CIMH__9P5-0N** 2 ÷ 25 poles, 5.08 mm/.200" pitch
**CIMH__9P7-0N** 2 ÷ 5 poles, 7.62 mm/.300" pitch
**CIMH__9P6-0N** 2 ÷ 13 poles, 10.16 mm/.400" pitch

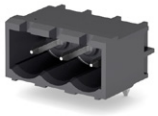


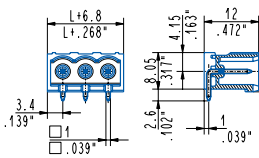

**90°, side stackable**
**CIMH__9A1-0N** 2 ÷ 19 poles, 5 mm/.197" pitch
**CIMH__9A3-0N** 2 ÷ 5 poles, 7.5 mm/.295" pitch
**CIMH__9A2-0N** 2 ÷ 10 poles, 10 mm/.394" pitch
**CIMH__9A5-0N** 2 ÷ 25 poles, 5.08 mm/.200" pitch
**CIMH__9A7-0N** 2 ÷ 5 poles, 7.62 mm/.300" pitch
**CIMH__9A6-0N** 2 ÷ 13 poles, 10.16 mm/.400" pitch



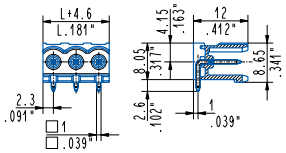

**90°, PCB fixing screw flanges**
**CIMH__9S5-0N** 2 ÷ 20 poles, 5.08 mm/.200" pitch
**CIMH__9S6-0N** 2 ÷ 10 poles, 10 mm / .394" pitch



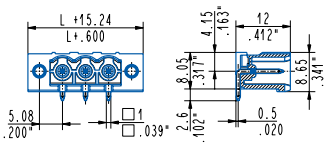




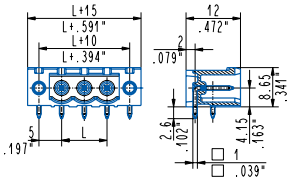

**270°, polarized**
**CIMH__5P1-0N** 2 ÷ 19 poles, 5 mm/.197" pitch



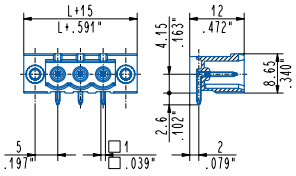

**270°, side stackable**
**CIMH__5A1-0N** 2 ÷ 19 poles, 5 mm/.197" pitch
**CIMH__5A5-0N** 2 ÷ 25 poles, 5.08 mm/.200" pitch




**270°, locking screw flanges**
**CIMH__5V5-0N** 2÷24 poles, 5.08 mm / .200" pitch




**90°, locking screw flanges & fake pin**
**CIMH__9F1-0N** 2÷20 poles, 5 mm / .197" pitch
**CIMH__9F5-0N** 2÷24 poles, 5.08 mm / .200" pitch




**90°, locking screw flanges**
**CIMH__9V1-0N** 2÷20 poles, 5 mm / .197" pitch
**CIMH__9V2-0N** 2÷10 poles, 10 mm / .394" pitch
**CIMH__9V5-0N** 2÷24 poles, 5.08 mm / .200" pitch
**CIMH__9V7-0N** 2÷5 poles, 7.62 mm / .300" pitch
**CIMH__9V6-0N** 2÷12 poles, 10.16 mm / .400" pitch

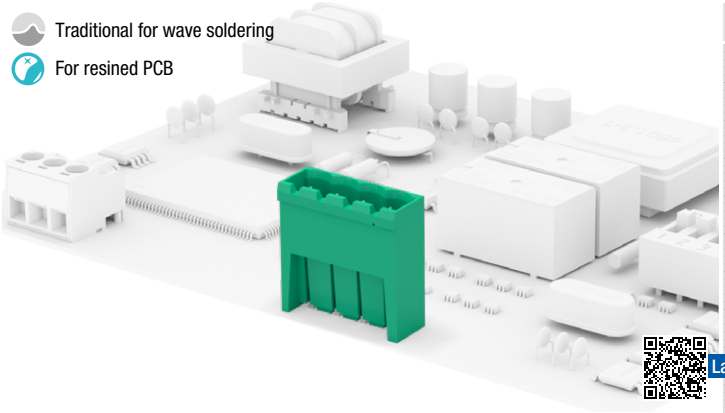
**Usable with:**

| CIF | CVF | CCF | CCF double | CGF/CGFH |
|---|---|---|---|---|
| Page 66 | Page 67 | Page 68 | Page 69 | Page 70 |

# CPM HIGH

Traditional for wave soldering

For resined PCB



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 10 mm (.197 in, .394 in) |
| **PCB thickness:** | max 2.4 mm (.094 in) |
| **PCB hole diameter:** | min 1.4 mm (.055 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

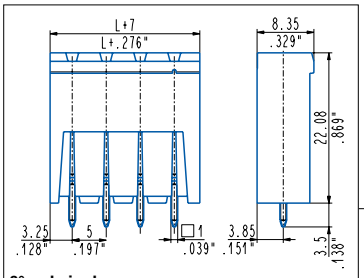
## Data according to

**UL 1059**
300 V - 12 A - for 5 mm pitch
600 V - 12 A - for 10 mm pitch

**IEC EN 61984**
300 V - 12 A - 5 mm pitch
1000 V - 12 A - 10 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

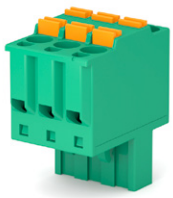
Please see "CONNECTORS COMBINATIONS"




**0°, polarized**
**CPM__OP1-0_H** - 2,4 poles, 5 mm / .197" pitch
**CPM__OP2-0_H** - 2 poles, 10 mm / .394" pitch

**Usable with:**

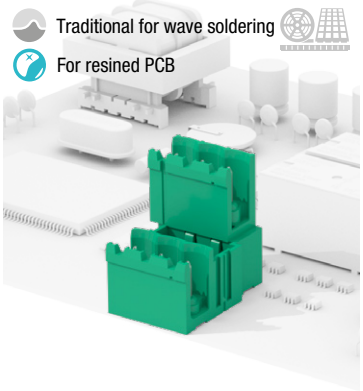
| CIF | CVF | CCF | CCF double | CGF/CGFH | CIM-SC1 |
|---|---|---|---|---|---|
| Page 66 | Page 67 | Page 68 | Page 69 | Page 70 | Page 83 |



# CPM

Traditional for wave soldering

For resined PCB



# CPMH

**STH** for reflow soldering

**MSL1**

For resined PCB

Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | green for wave soldering, black for reflow soldering |
| **Pitches:** | metric 5 mm, 10 mm (.197 in, .394 in)<br>imperial 5.08 mm, 10.16 mm (.200 in, .400 in) |
| **PCB thickness:** | max 2.4 mm (.094 in) |
| **PCB hole diameter:** | min 1.6 mm (.063 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **STH operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance**: | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**
300 V - 12 A - for 5 mm and 5.08 mm pitch
600 V - 12 A - for 10 mm and 10.16 mm pitch

**VDE (n. 40027448)**
250 V - 16 A - for 5 mm and 5.08 mm pitch
750 V - 16 A - for 10 mm and 10.16 mm pitch

**IMQ (n. EM672)**
300 V - 12 A - for 5 mm and 5.08 mm pitch
1000 V - 12 A - for 10 mm and 10.16 mm pitch

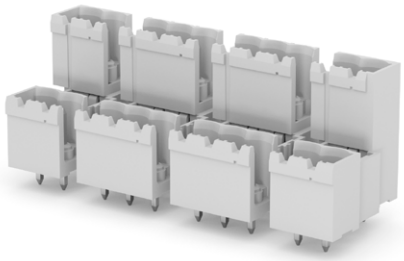
**CSA (n. LR102896)**
300 V - 15 A - for 5 mm and 5.08 mm pitch
600 V - 15 A - for 10 mm and 10.16 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

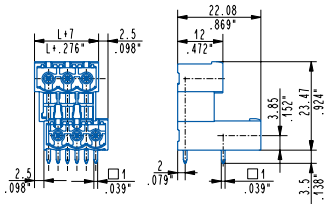
A higher number of poles is obtained by combining together **modular** parts.

Please see "CONNECTORS COMBINATIONS"

In order to protect terminals during transport, the product in box is packaged in row trays.

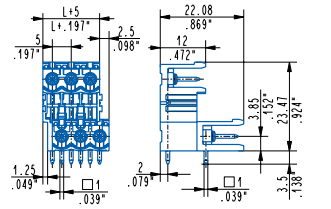


**(*)** A higher number of poles for the polarized version is obtained by combining together modular and polarized parts as the example above.



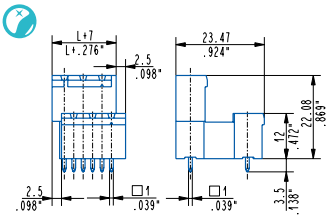
**90°, polarized (*)**

**CPM__9P1** - 2 ÷ 8 poles, 5 mm / .197" pitch
**CPM__9P2** - 2 ÷ 4 poles, 10 mm / .394" pitch
**CPM__9P5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**CPM__9P6** - 2 poles, 10.16 mm / .400" pitch
**CPMH__9P1-0N** 2÷8 poles, 5 mm / .197" pitch
**CPMH__9P2-0N** 2÷4 poles, 10 mm / .394" pitch
**CPMH__9P5-0N** 2÷3 poles, 5.08 mm / .200" pitch
**CPMH__9P6-0N** 2 poles, 10.16 mm / .400" pitch



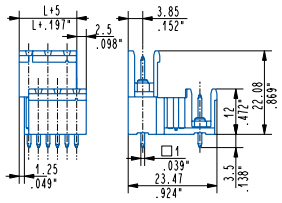
**90°, modular**

**CPM__9M1** - 2 ÷ 8 poles, 5 mm / .197" pitch
**CPM__9M2** - 2 ÷ 4 poles, 10 mm / .394" pitch
**CPM__9M5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**CPM__9M6** - 1 ÷ 2 poles, 10.16 mm / .400" pitch
**CPMH__9M1-0N** 2÷8 poles, 5 mm / .197" pitch
**CPMH__9M2-0N** 2÷4 poles, 10 mm / .394" pitch
**CPMH__9M5-0N** 2÷3 poles, 5.08 mm / .200" pitch
**CPMH__9M6-0N** 1÷2 poles, 10.16 mm / .400" pitch



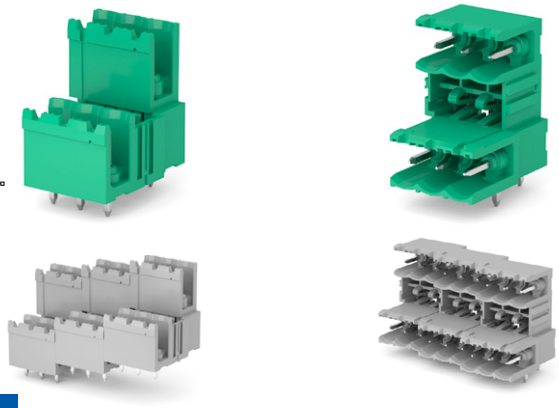
**0°, polarized (*)**

**CPM__0P1** - 2 ÷ 8 poles, 5 mm / .197" pitch
**CPM__0P2** - 2 ÷ 4 poles, 10 mm / .394" pitch
**CPM__0P5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**CPM__0P6** - 2 poles, 10.16 mm / .400" pitch
**CPMH__0P1-0N** 2÷8 poles, 5 mm / .197" pitch
**CPMH__0P2-0N** 2÷4 poles, 10 mm / .394" pitch
**CPMH__0P5-0N** 2÷3 poles, 5.08 mm / .200" pitch
**CPMH__0P6-0N** 2 poles, 10.16 mm / .400" pitch



**0°, modular**

**CPM__0M1** - 2 ÷ 8 poles, 5 mm / .197" pitch
**CPM__0M2** - 1 ÷ 4 poles, 10 mm / .394" pitch
**CPM__0M5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**CPM__0M6** - 1 ÷ 2 poles, 10.16 mm / .400" pitch
**CPMH__0M1-0N** 2÷8 poles, 5 mm / .197" pitch
**CPMH__0M2-0N** 1÷4 poles, 10 mm / .394" pitch
**CPMH__0M5-0N** 2÷3 poles, 5.08 mm / .200" pitch
**CPMH__0M6-0N** 1÷2 poles, 10.16 mm / .400" pitch



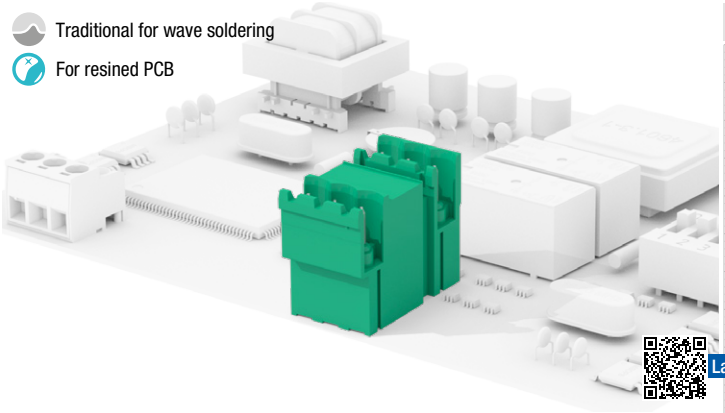
**Usable with:**

| CIF | CVF | CCF | CGF/CGFH | CIM-SC1 |
|---|---|---|---|---|
| Page 66 | Page 67 | Page 68 | Page 70 | Page 83 |

# CRM

Traditional for wave soldering

For resined PCB

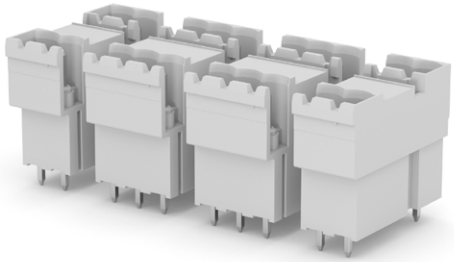


Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 10 mm (.197 in, .394 in)<br>imperial 5.08 mm, 10.16 mm (.200 in, .400 in) |
| **PCB thickness:** | max 2.4 mm (.094 in) |
| **PCB hole diameter:** | min 1.4 mm (.055 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |



## Certifications

**UL (n. E167473)**
300 V - 15 A - for 5 mm and 5.08 mm pitch
600 V - 15 A - for 10 mm and 10.16 mm pitch

**VDE (n. 40027448)**
250 V - 16 A - for 5 mm and 5.08 mm pitch
750 V - 16 A - 2 for 10 mm and 10.16 mm pitch

**IMQ (n. EM672)**
300 V - 12 A - for 5 mm and 5.08 mm pitch
1000 V - 12 A - for 10 mm and 10.16 mm pitch

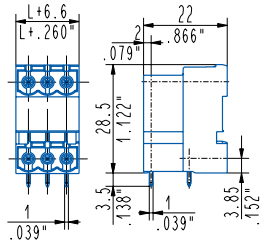
**CSA (n. LR102896)**
300 V - 15 A - for 5 mm and 5.08 mm pitch
600 V - 15 A - for 10 mm and 10.16 mm pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

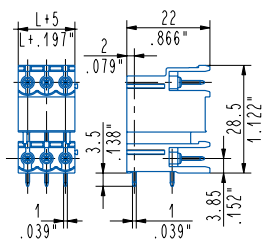
A higher number of poles is obtained by combining together **modular** parts.

Please see "CONNECTORS COMBINATIONS"

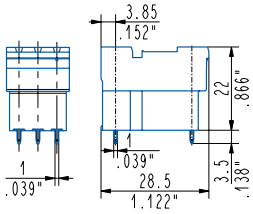
**(*)** A higher number of poles for the polarized version is obtained by combining together modular and polarized parts as the example above.



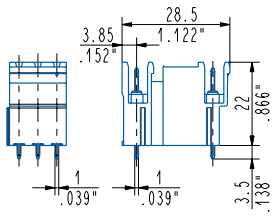

**90°, polarized (*)**
**CRM__9P1** - 2 ÷ 3 poles, 5 mm / .197" pitch
**CRM__9P2** - 1 ÷ 2 poles, 10 mm / .394" pitch
**CRM__9P5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**CRM__9P6** - 1 ÷ 2 poles, 10.16 mm / .400" pitch



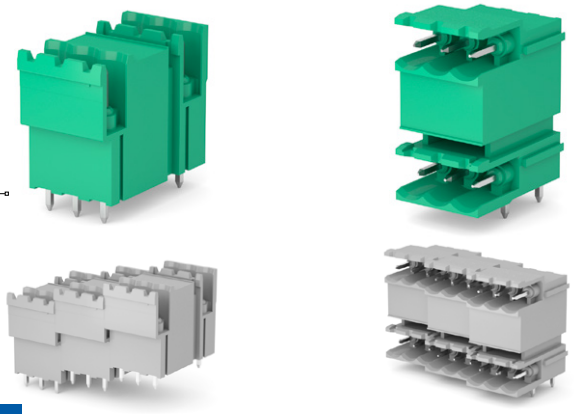

**90°, modular**
**CRM__9M1** - 2 ÷ 3 poles, 5 mm / .197" pitch
**CRM__9M2** - 1 ÷ 2 poles, 10 mm / .394" pitch
**CRM__9M5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**CRM__9M6** - 1 ÷ 2 poles, 10.16 mm / .400" pitch




**0°, polarized (*)**
**CRM__0P1** - 2 ÷ 3 poles, 5 mm / .197" pitch
**CRM__0P2** - 1 ÷ 2 poles, 10 mm / .394" pitch
**CRM__0P5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**CRM__0P6** - 1 ÷ 2 poles, 10.16 mm / .400" pitch




**0°, modular**
**CRM__0M1** - 2 ÷ 3 poles, 5 mm / .197" pitch
**CRM__0M2** - 1 ÷ 2 poles, 10 mm / .394" pitch
**CRM__0M5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**CRM__0M6** - 1 ÷ 2 poles, 10.16 mm / .400" pitch



**Usable with:**

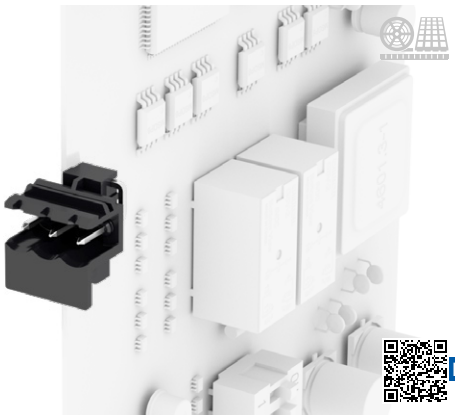
| CIF | CVF | CCF | CGF/CGFH | CIM-SC1 |
|---|---|---|---|---|
| Page 66 | Page 67 | Page 68 | Page 70 | Page 83 |

L = pitch x (poles - 1)

The drawing refers to only a pitch, please see our complete range of products by visiting our website on **www.sauro.net** or refering to your representative Sales Manager

**STH** for reflow soldering

**MSL1**



Last release

Your drawings and notes

### General data

| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | black |
| **Pitches:** | metric 5 mm, (.197 in) |
| **PCB thickness:** | max 2.4 mm (.094 in) |
| **PCB hole diameter:** | min 1.6 mm (.063 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

### Certifications

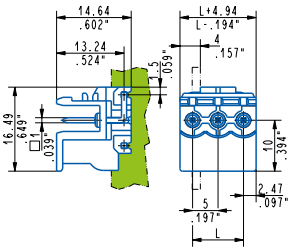
**UL (n. E167473)**
300 V - 12 A

### Data according to

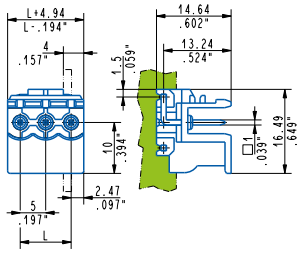
**IEC EN 61984**
300 V - 12 A

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

Please see "CONNECTORS COMBINATIONS"



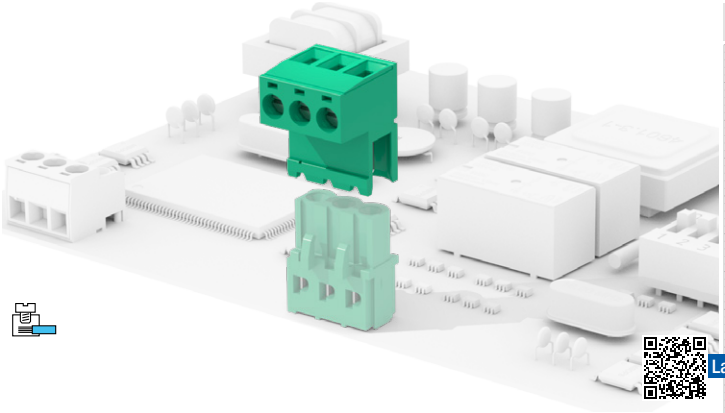

**Normo-orthogonal left**
**CIMH__NL1-ON** - 2÷4 poles, 5 mm / .197" pitch




**Normo-orthogonal right**
**CIMH__NR1-ON** - 2÷4 poles, 5 mm / .197" pitch

**Usable with:**

| CIF | CVF | CCF | CCF double | CGF/CGFH |
|---|---|---|---|---|
| Page 66 | Page 67 | Page 68 | Page 69 | Page 70 |



Last release

Your drawings and notes

## General data

| | |
|---|---|
| **Dimensional class:** | Medium |
| **Standard colour:** | green |
| **Pitches:** | metric 5, 7.5, 10 mm (.197, .295, .394 in)<br>imperial 5.08, 7.62, 10.16 mm (.200, .300, .400 in) |
| **Screw dimension:** | M3 |
| **Recommended/Highest tightening torque:** | 0.5/0.6 Nm (4.42/5.3 lbf·in) |
| **Stripping length:** | 6 ÷ 7.5 mm (.24 ÷ .30 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

## Certifications

**UL (n. E167473)**
300 V - 15 A - 30÷12 AWG - for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
600 V - 15 A - 30÷12 AWG - for 10 mm and 10.16 mm pitch

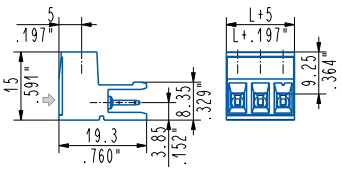
**VDE (n. 40027448)**
250 V - 16 A - 2.5 mm² - for 5 mm and 5.08 mm pitch
500 V - 16 A - 2.5 mm² - for 7.5 mm and 7.62 mm pitch
750 V - 16 A - 2.5 mm² - for 10 mm and 10.16 mm pitch

**IMQ (n. EM672)**
300 V - 12 A - 2.5 mm² - for 5 mm and 5.08 mm pitch
600 V - 12 A - 2.5 mm² - for 7.5 mm and 7.62 mm pitch
1000 V - 12 A - 2.5 mm² - for 10 mm and 10.16 mm pitch

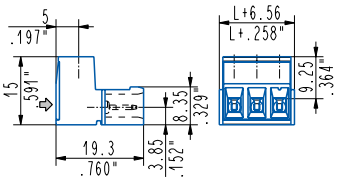
Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

A higher number of poles is obtained by combining together **modular** parts.

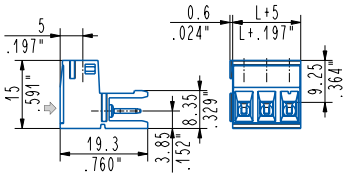
Please see "CONNECTORS COMBINATIONS"



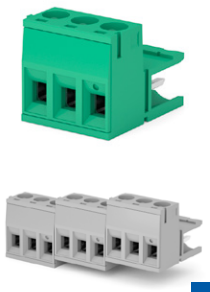

**Side stackable**
**CGM__0A1** - 2 ÷ 18 poles, 5 mm / .197" pitch
**CGM__0A3** - 2 ÷ 3 poles, 7.5 mm / .295" pitch
**CGM__0A2** - 2 ÷ 9 poles, 10 mm / .394" pitch
**CGM__0A5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**CGM__0A7** - 2 ÷ 3 poles, 7.62 mm / .300" pitch
**CGM__0A6** - 2 poles, 10.16 mm / .400" pitch




**Polarized**
**CGM__0P1** - 2 ÷ 18 poles, 5 mm / .197" pitch
**CGM__0P3** - 2 ÷ 3 poles, 7.5 mm / .295" pitch
**CGM__0P2** - 2 ÷ 9 poles, 10 mm / .394" pitch
**CGM__0P5** - 2 ÷ 4 poles, 5.08 mm / .200" pitch
**CGM__0P7** - 2 ÷ 3 poles, 7.62 mm / .300" pitch
**CGM__0P6** - 2 poles, 10.16 mm / .400" pitch

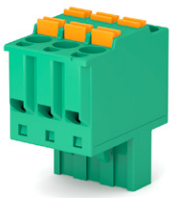


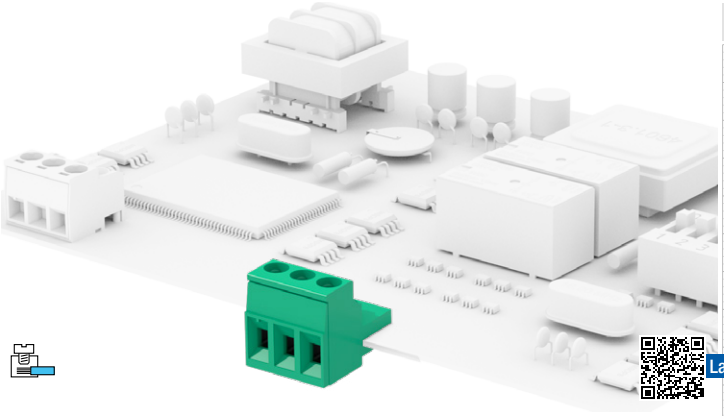

**Modular**
**CGM__0M1** - 2 ÷ 18 poles, 5 mm / .197" pitch
**CGM__0M3** - 2 ÷ 3 poles, 7.5 mm / .295" pitch
**CGM__0M2** - 1 ÷ 9 poles, 10 mm / .394" pitch
**CGM__0M5** - 2 ÷ 3 poles, 5.08 mm / .200" pitch
**CGM__0M7** - 2 ÷ 3 poles, 7.62 mm / .300" pitch
**CGM__0M6** - 1 ÷ 2 poles, 10.16 mm / .400" pitch



**Usable with:**

| CIF | CVF | CCF | CCF double | CGF/CGFH | CIM-SC1 |
|---|---|---|---|---|---|
| Page 66 | Page 67 | Page 68 | Page 69 | Page 70 | Page 83 |





Last release

Your drawings and notes

### General data

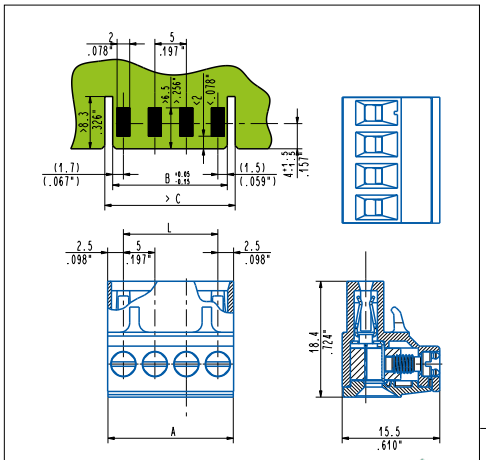
| | |
|---|---|
| **Dimensional class:** | medium |
| **Standard colour:** | green |
| **Pitches:** | metric 5 mm, 10 mm (.197 in, .394 in) |
| **Screw dimension:** | M3 |
| **Recommended/highest tightening torque:** | 0.5/0.6 Nm (4.42/5.30 lbf·in) |
| **Stripping length:** | 6 ÷ 7.5 mm (.24 ÷ .30 in) |
| **Operating temperature range:** | -40 °C ÷ +105 °C (-40 °F ÷ +221 °F) |
| **Contact resistance:** | <15 mΩ |
| **Insulating material group:** | I (CTI ≥ 600V) |
| **Self-extinguishing class UL94:** | V0 |
| **Insulation resistance:** | >$10^9$ Ω (500V DC) |

### Certifications

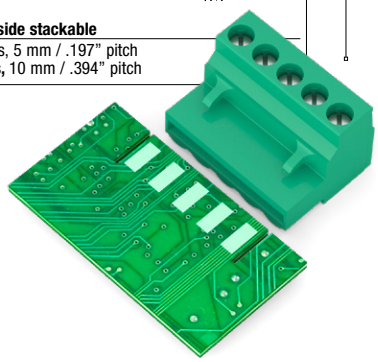
**UL (n. E167473)**
300 V - 10 A - 30÷12 AWG - for 5 mm (.197 in) pitch
600 V - 10 A - 30÷12 AWG - for 10 mm (.394 in) pitch

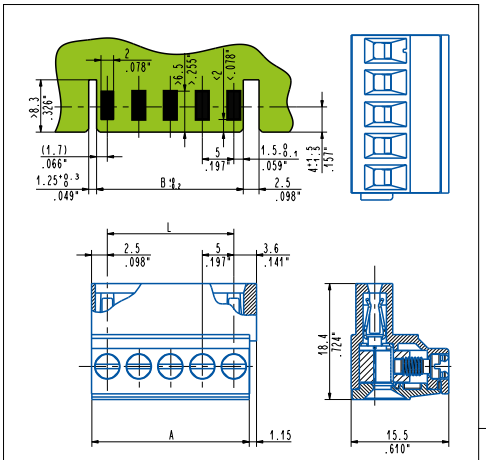
**VDE (n. 40017856)**
250 V - 10 A - 1.5 mm² - for 5 mm (.197 in) pitch
750 V - 10 A - 1.5 mm² - for 10 mm (.394 in) pitch

Application values for end-use equipment have to be in accordance to norms and applicable to it. The certifications of some product's versions could be pending, for more detailed and updated data please refer to our web site **www.sauro.net** or your representative Sales Manager.

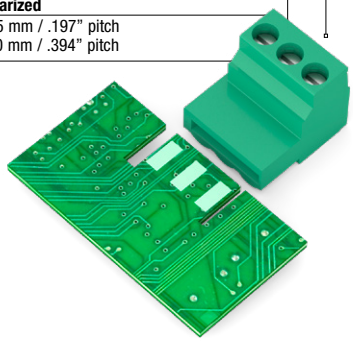


**Board edge connector, side stackable**
**CUF__001** - 2 ÷ 16 poles, 5 mm / .197" pitch
**CUF__002** - 2 ÷ 8 poles, 10 mm / .394" pitch



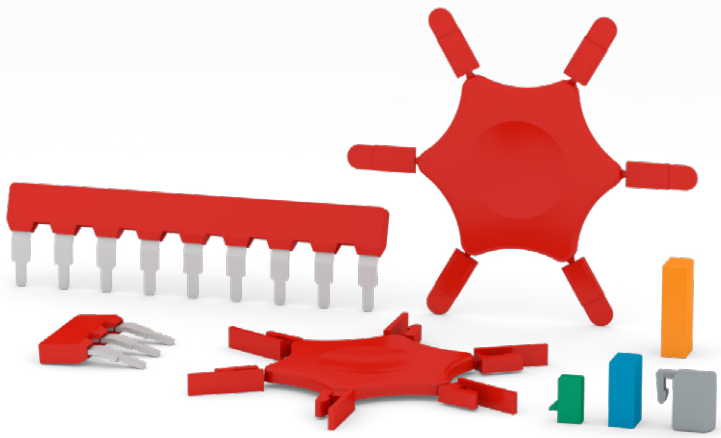


**Board edge connector, polarized**
**CUF__0P1** - 2 ÷ 16 poles, 5 mm / .197" pitch
**CUF__0P2** - 2 ÷ 8 poles, 10 mm / .394" pitch

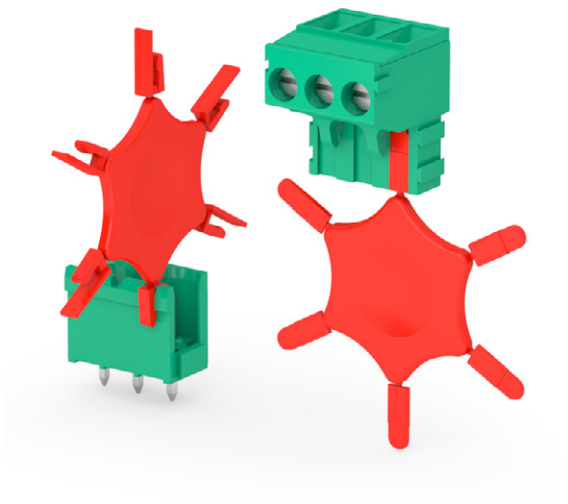


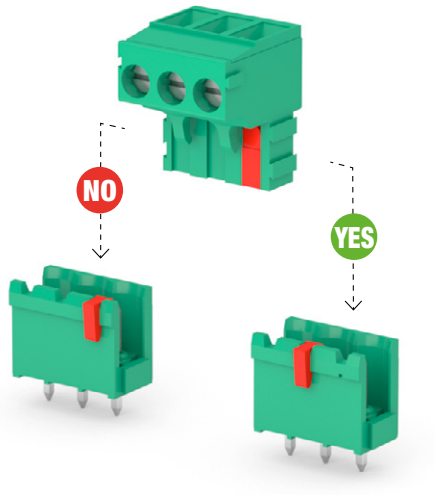
# Accessories


**CODING CLIPS AND SPLINES** 83
**BRIDGE FOR SHORT CIRCUIT** 84
**OCCLUDERS** 85

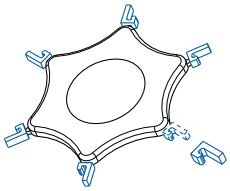


# CODING CLIPS AND SPLINES






Coding clips and splines are made of RED PA 6.6 Polyamide (not suitable for reflow soldering), which is:
· phosphorus, dioxins, halogens and antimony trioxide free, all detrimental substances
· resistant to chlorinated solvents
· V0 class self-extinguishing according to UL94



**Coding clip**
**CKF-SC1** - pcs/pack 120

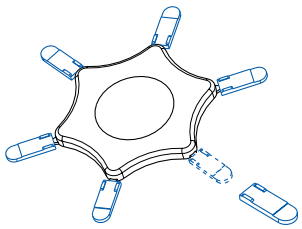
By using these clips, it is possible to polarize CTF, CBF and CKF female connector series. This is achieved by hooking one or more CKF-SC1 coding clips into the recesses of the female connector and by inserting CTM-LC1 coding splines into the grooves of the corresponding male connectors, in the appropriate complementary positions.

**The CKF-LC1 coding clips can be used with the CTF, CBF and CKF female connector series.**

CKF

CTF

CBF



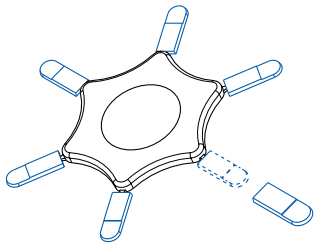
**Coding spline**
**CTM-LC1** - pcs/pack 120

By using these splines, it is possible to polarize CTM male connector series. This is achieved by inserting one or more CTM-LC1 coding splines into the grooves of the male connector and by hooking the CKF-SC1 coding clips in the recesses of the corresponding female connector, in the appropriate complementary positions.

**The CTM-LC1 coding spline can be used with the CTM* male connector series.**

* Up to 13 poles

CTM



**Coding spline**
**CIF-LC1** - Pcs/pack 120

By using these splines, it is possible to polarize CIF, CVF, CGF, CTM*, CCF and CCF double female connector series. This is achieved by inserting one or more CIF-LC1 coding splines into the recesses of the female connector and by hooking the CIM-SC1 coding clips into the grooves of the corresponding male connectors, in the appropriate complementary positions.

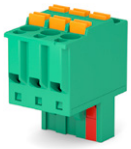
**The CIF-LC1 coding spline can be used with the CIF, CVF, CCF, CCF double, CGF, CTM* connector series.**

* From 13 poles included

CIF

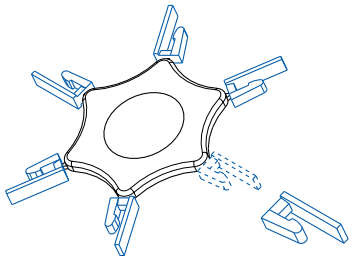
CVF

CCF


CCF DOUBLE

CGF

CTM

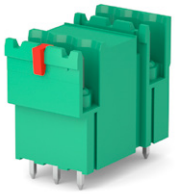


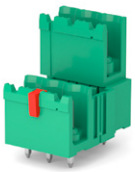
**Coding clip**
**CIM-SC1** - Pcs/pack 120

By using these clips, it is possible to polarize CIM, CPM, CGM and CRM male connector series. This is achieved by hooking one or more CIM-SC1 coding clips in the grooves of the male connector and by inserting the CIF-LC1 coding splines into the recesses of the corresponding female connector, in the suitable complementary positions.

**The CIM-SC1 coding clip can be used with CIM, CPM, CGM and CRM male connector series.**

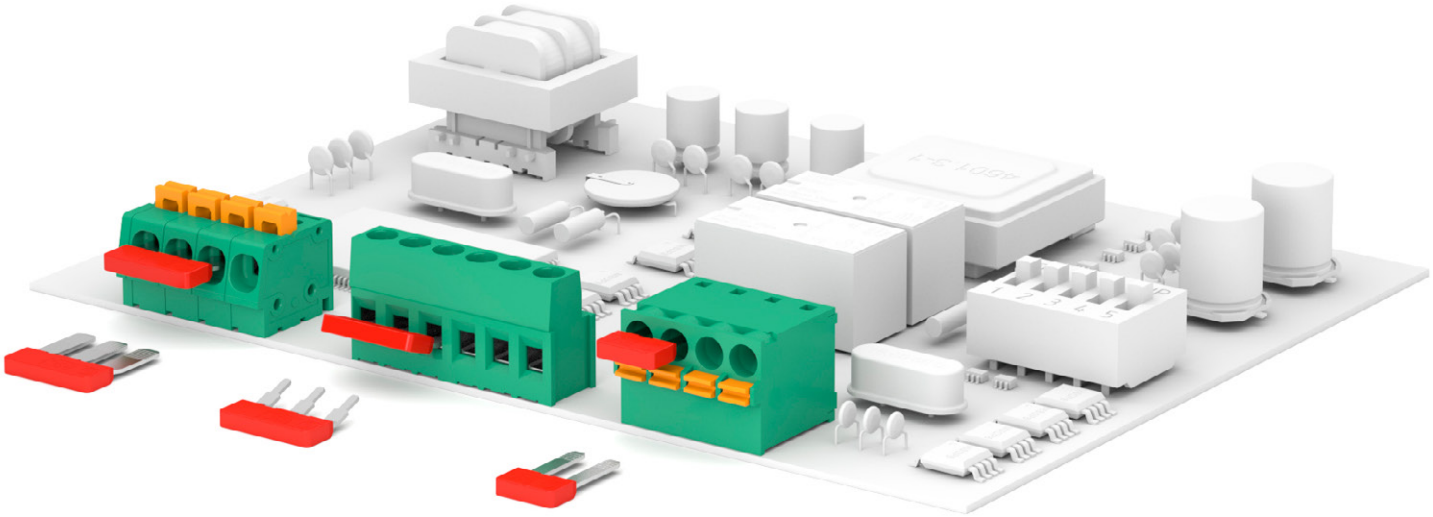
CIM


CRM

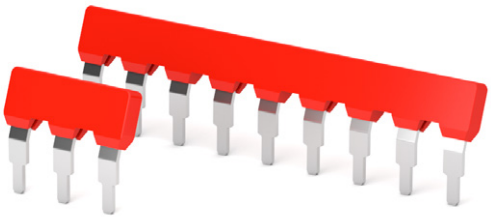

CPM

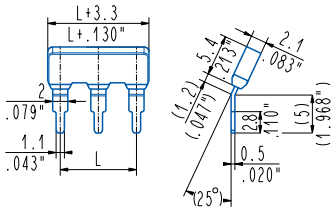
CGM

# BRIDGE FOR SHORT CIRCUIT



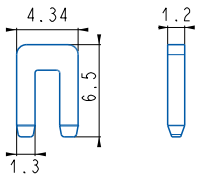
With Sauro bridges a short circuit between adjacent poles of the terminal blocks and the connectors is obtained, at the same time enabling wiring to be carried out. They can be used as bridges on the PCBs as they have tapered ends.
Sauro bridges for short circuit meet the safety and environmental requirements demanded by the strictest international standards. The metallic part is made by copper alloy with a lead free tin treatment surface and the insulating part is made by PA 6.6 Polyamide which is V0 class self-extinguishing according to UL94.
They are available from 2 to 9 poles and it is possible join them together in order to obtain any number of poles.
Sauro bridges for short circuit can be supplied already mounted on the products according to the client's design-in.





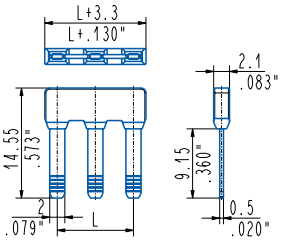

**Bridges for short circuit** for screw-type products

**BSC__000-0R** - 2 ÷ 9 poles, 5 mm, 5.08 mm / .197", .200" pitch
**BSC__003-0R** - 2 ÷ 6 poles, 7.5 mm, 7.62 mm / .295", .300" pitch
**BSC__002-0R** - 2 ÷ 5 poles, 10 mm / .394" pitch
**BSC__006-0R** - 2 ÷ 5 poles, 10.16 mm / .400" pitch



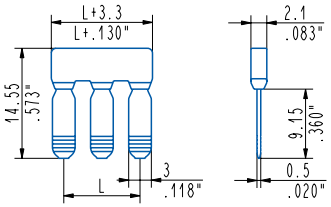

**Internal bridges for short circuit for MCM series**

**MCM-BSC1** - 2 poles, 5 mm / .197" pitch
**MCM-BSC5** - 2 poles, 5.08 mm / .200" pitch
**MCM-BSC3** - 2 poles, 7.5 mm / .295" pitch
**MCM-BSC7** - 2 poles, 7.62 mm / .300" pitch
**MCM-BSC2** - 2 poles, 10 mm / .394" pitch
**MCM-BSC6** - 2 poles, 10.16 mm / .400" pitch




**Bridges for short circuit** for push-in products

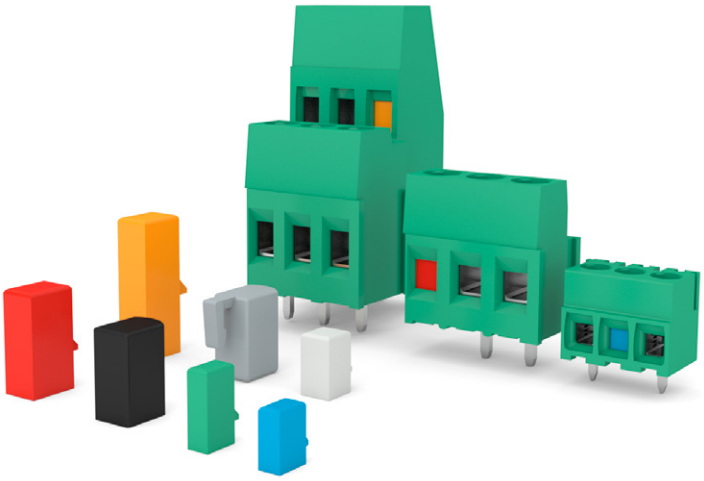
**BSC__0C0-0R** - 2 ÷ 9 poles, 5 mm, 5.08 mm / .197", .200" pitch
**BSC__0C3-0R** - 2 ÷ 6 poles, 7.5 mm, 7.62 mm / .295", .300" pitch
**BSC__0C2-0R** - 2 ÷ 5 poles, 10 mm / .394" pitch
**BSC__0C6-0R** - 2 ÷ 5 poles, 10.16 mm / .400" pitch




**Bridges for short circuit for MCM series**

**BSC__0L1-0R** - 2 ÷ 9 poles, 5 mm / .197" pitch
**BSC__0L5-0R** - 2 ÷ 9 poles, 5.08 mm / .200" pitch
**BSC__0L2-0R** - 2 ÷ 5 poles, 10 mm / .394" pitch
**BSC__0L6-0R** - 2 ÷ 5 poles, 10.16 mm / .400" pitch

# OCCLUDERS

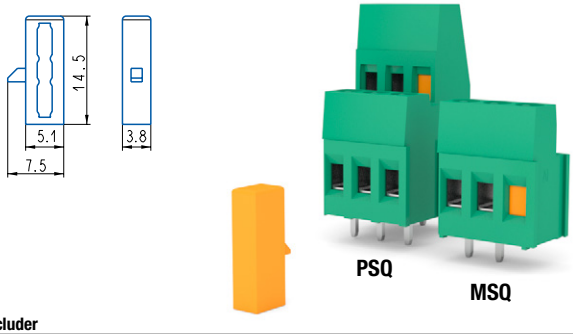


Occluders could be the right solution in order to close the wire entry on screw type terminal block or to impede the plug-header connection. Customer can buy occluders on their own or already inserted in the product according to the customer's configuration. They are made of PA 6.6 Polyamide material, which is:

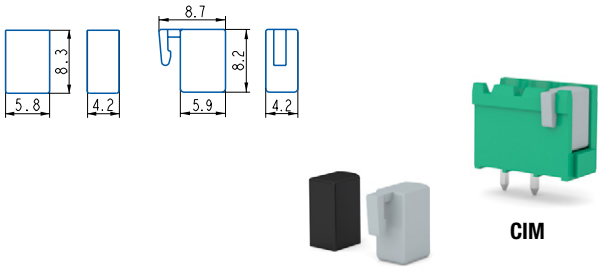
· phosphorus, dioxins, halogens and antimony trioxide free, all detrimental substances
· resistant to chlorinated solvents
· V0 class self-extinguishing according to UL94

The standard color is green, but it is available also in different colors.

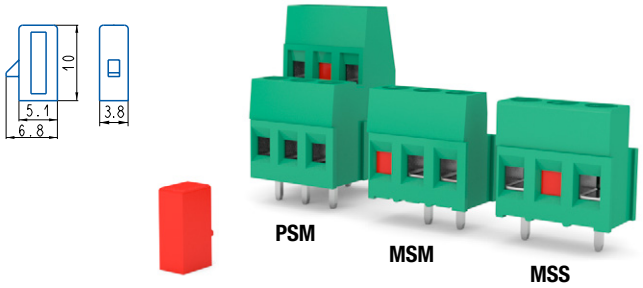
Colors available:
Green similar to RAL 6032, Black similar to RAL 9005, Dark gray similar to RAL 7040, Light gray similar to RAL 7035, White similar to RAL 9001, Blue similar to RAL 5012, Yellow similar to RAL 1018, Orange similar to RAL 2003, Red similar to RAL 3017, Brownn similar to RAL 8028




**Occluder**
**OCL-PSQ-V** - pcs/pack 500
The OCL-PSQ-V occluders can be used with the PSQ plurima and MSQ terminal block series.

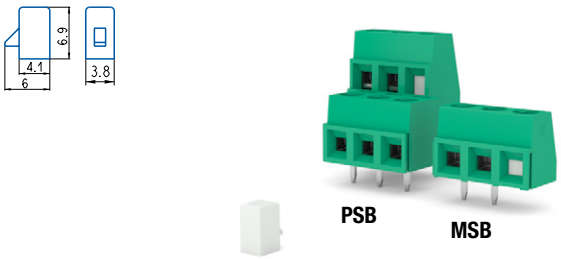



**Occluder**
**OCL-CIM-V / OCL-CIM-V01** - pcs/pack 500
The OCL-CIM-V / OCL-CIM-V01 occluders can be used with the CIM header series.




**Occluder**
**OCL-PSM-V** - pcs/pack 500
The OCL-PSM-V occluders can be used with the PSM plurima, MSM and MSS terminal block series.

**Occluder**
**OCL-MTS-V** - pcs/pack 500
The OCL-MTS-V occluders can be used with the MTS terminal block series.

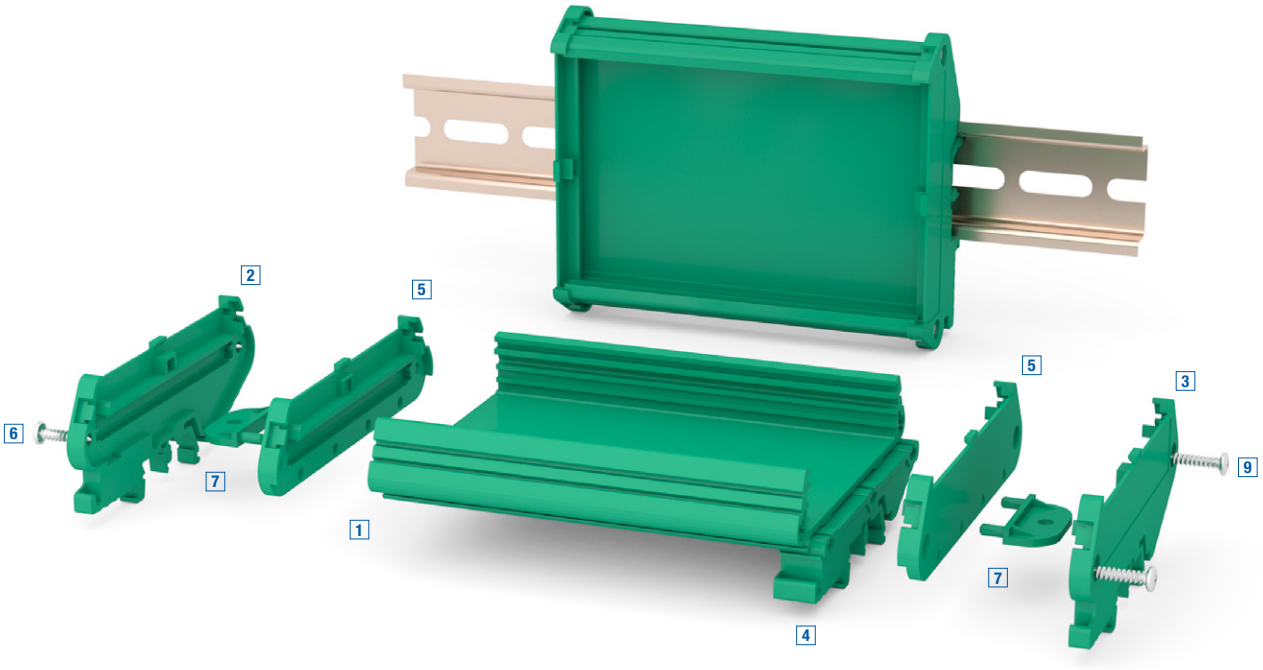



**Occluder**
**OCL-MSB-V** - pcs/pack 500
The OCL-MSB-V occluders can be used with the MSB terminal block and PSB plurima series.

**Occluder**
**OCL-MTB** - pcs/pack 500
The OCL-MTB-V occluders can be used with the MTB terminal block series.

# PCB supports

| | |
|---|---|
| **STC 072** | 88 |
| **STC 107** | 90 |
| **SMC 072** | 92 |
| **SMC 107** | 94 |
| **SRC 175** | 96 |
| **SRC 225** | 96 |
| **SRC 350** | 97 |
| **SRC 450** | 97 |




### Functional characteristics

**Width of PCB:** 68 mm - 72 mm (2.677 in - 2.835 in)
**Support Type:** extruded
**Standard Colour:** green
**Thickness of PCB:** 1.6 ÷ 2.8 mm (.063 ÷.110 in)
**Material:** PA6.6 and PVC (UL94-V0)

| Description | Part-Number | Pcs / pack |
|---|---|---|
| 1 **Central Body** | **STC072S___** | 50 |
| | **STC0722000** | 10 |
| | **STC072L___** | 100 |
| 2 **Left Lateral Element with Rail Hook** | **STC072TSX0** | 50 |
| 3 **Right Lateral Element with Rail Hook** | **STC072TDX0** | 50 |
| 4 **DIN Rail Hook** | **STC072P011** | 50 |
| 5 **Head Without Rail Hook** | **STC072T000** | 100 |
| 6 **Screw for Head Fastening** | **STC000V015** | 100 |
| **Screw for Head Fastening** | **STC000V025** | 100 |
| 7 **Bracket for Mounting on the Wall** | **STC000F000** | 100 |
| 8 **Size of STD Adapter for 68 mm (2.677 in) Boards** | **STC072A026** | 50 |

## 1

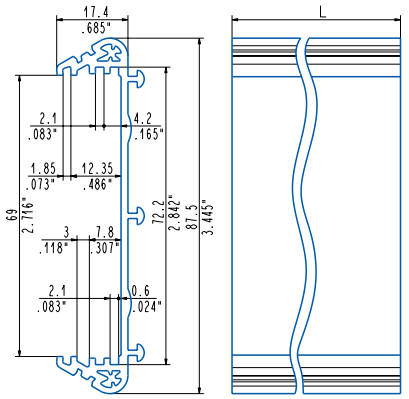
### Custom Sized Cut Profile

**For a Custom Sized Cut Profile, the length of the Central Body must be equal to the length of the PCB minus 3.5 mm (.138 inch). It's advised to round off the figure to the higher whole number.**
The length of the support, including the Lateral Elements, is equal to the length of the Profile plus 6 mm (.236 inch).

### Example

| For PCB | | Cut Profile sizes L (1) | | Length of support with DIN rail hook | | Part-Number | Pcs / pack |
|---|---|---|---|---|---|---|---|
| (mm) | (in) | (mm) | (in) | (mm) | (in) | | |
| 20,00 | .787 | 16,50 | .650 | 22,50 | .886 | **STC072S016** | 50 |
| 31,25 | 1.230 | 27,75 | 1.093 | 33,75 | 1.329 | **STC072S028** | 50 |
| 42,50 | 1.673 | 39,00 | 1.535 | 45,00 | 1.772 | **STC072S039** | 50 |
| 53,75 | 2.116 | 50,25 | 1.978 | 56,25 | 2.215 | **STC072S050** | 50 |
| 65,00 | 2.559 | 61,50 | 2.421 | 67,50 | 2.657 | **STC072S061** | 50 |
| 76,25 | 3.002 | 72,75 | 2.864 | 78,75 | 3.100 | **STC072S073** | 50 |
| 87,50 | 3.445 | 84,00 | 3.307 | 90,00 | 3.543 | **STC072S084** | 50 |
| 98,75 | 3.888 | 95,25 | 3.750 | 101,25 | 3.986 | **STC072S095** | 50 |
| 110,00 | 4.331 | 106,50 | 4.193 | 112,50 | 4.429 | **STC072S106** | 50 |
| 121,25 | 4.774 | 117,75 | 4.636 | 123,75 | 4.872 | **STC072S118** | 50 |
| 132,50 | 5.217 | 129,00 | 5.079 | 135,00 | 5.315 | **STC072S129** | 50 |
| 143,75 | 5.659 | 140,25 | 5.522 | 146,25 | 5.758 | **STC072S140** | 50 |
| 155,00 | 6.102 | 151,50 | 5.965 | 157,50 | 6.201 | **STC072S151** | 50 |
| 166,25 | 6.545 | 162,75 | 6.407 | 168,75 | 6.644 | **STC072S163** | 50 |
| 177,50 | 6.988 | 174,00 | 6.850 | 180,00 | 7.087 | **STC072S174** | 50 |
| -------- | -------- | Profile for PCB with L = 2 m (78.740 in) | | -------- | -------- | **STC0722000** | 10 |
| L (PCB) | L (PCB) | L(5) = L (PCB) -3,5 | L = L (PCB) -.138 | L + 6 | L +.236 | **STC072L_ _ _** | 100 |

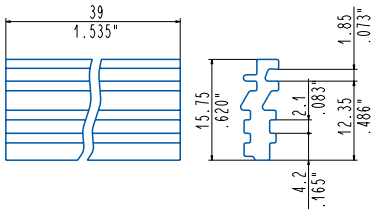
**1**

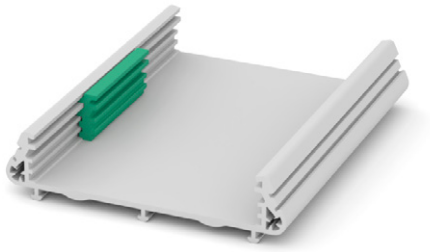



**Custom Size Cut Extruded Profile**

**STC072S_ _ _ , STC0722000 , STC072L_ _ _**

**8**

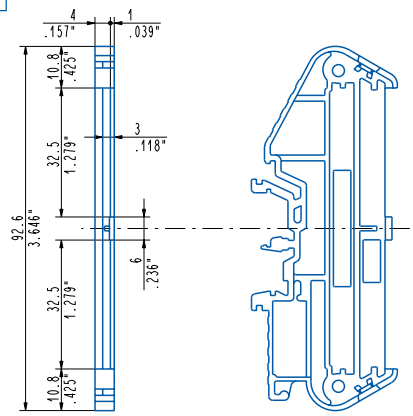


**Size Adapter for 2.677 in (68 mm) PCB**

**STC072A026**

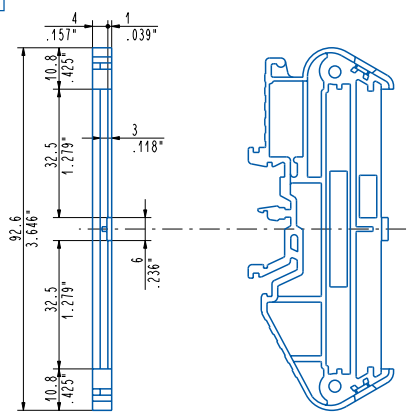
**3**




**Lateral Element with Right Rail Hook**

**STC072TDX0**

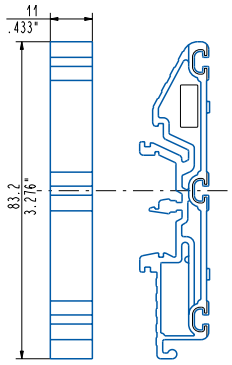
**2**




**Lateral Element with Left Rail Hook**

**STC072TSX0**

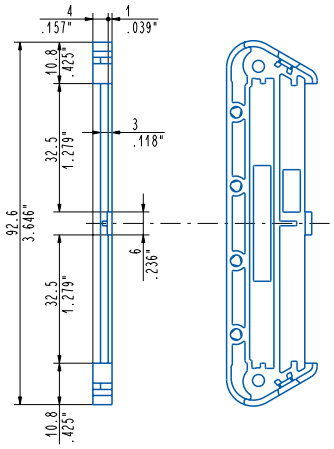
**4**




**DIN Rail Hook**

**STC072P011**

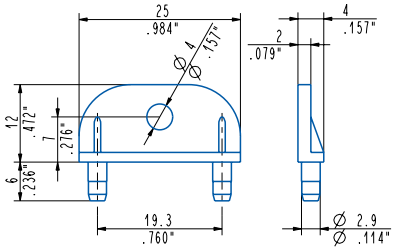
**5**




**Lateral Element without Rail Hook**

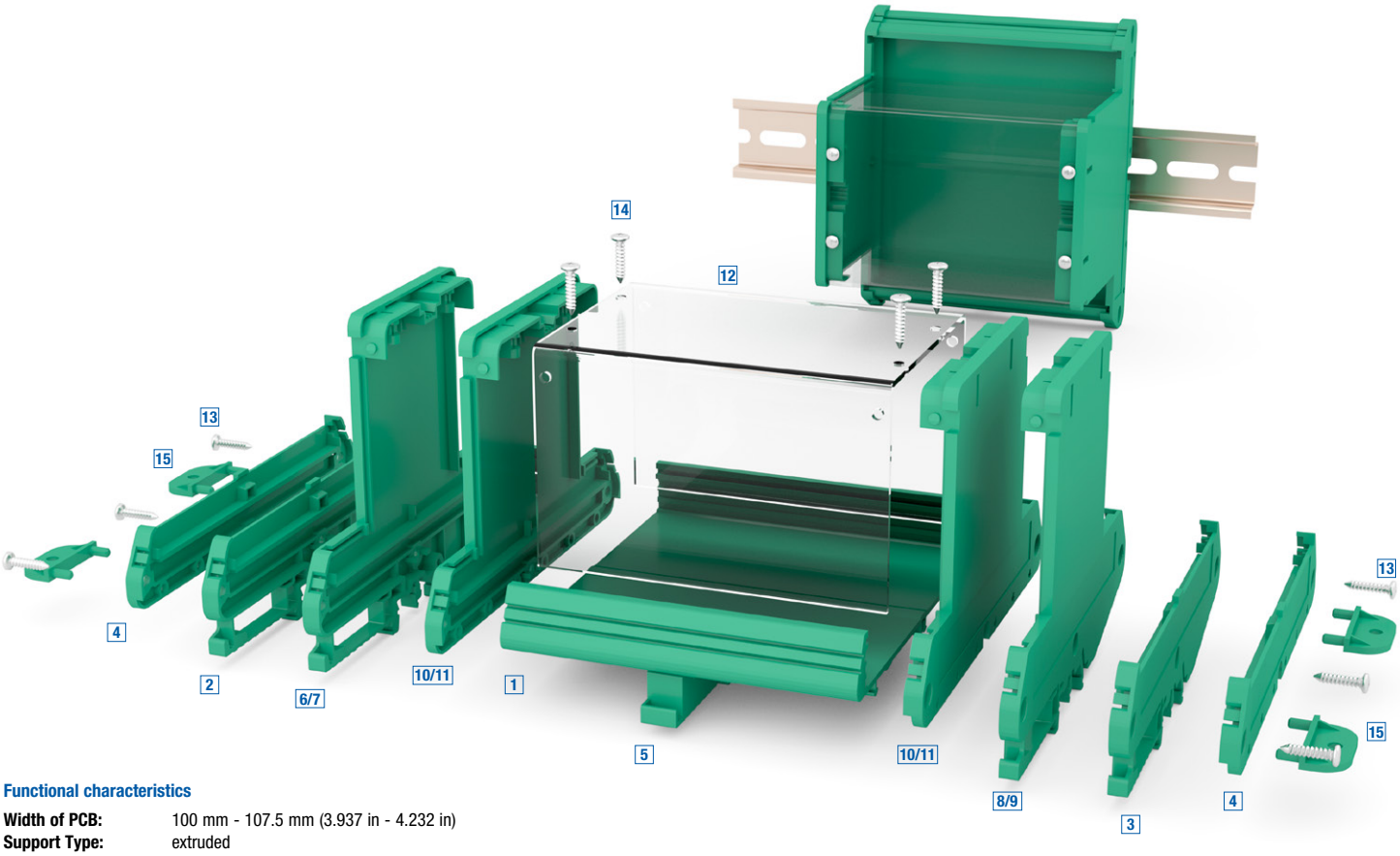
**STC072T000**

**7**




**Bracket for Mounting on the Wall**

**STC000F000**




### Functional characteristics

| | |
|---|---|
| **Width of PCB:** | 100 mm - 107.5 mm (3.937 in - 4.232 in) |
| **Support Type:** | extruded |
| **Standard Colour:** | green |
| **Thickness of PCB:** | 1.6 ÷ 2.8 mm (.063 ÷.110 in) |
| **Material:** | PA6.6 and PVC (UL94-V0) |

| | Description | Part-Number | Pcs/pack |
|---|---|---|---|
| 1 | **Central Body** | **STC107S___** | 50 |
| | | **STC1072000** | 10 |
| | | **STC107L___** | 100 |
| 2 | **Left Lateral Element with Rail Hook** | **STC107TSX0** | 50 |
| 3 | **Right Lateral Element with Rail Hook** | **STC107TDX0** | 50 |
| 4 | **Head Without Rail Hook** | **STC107T000** | 100 |
| 5 | **DIN Rail Hook** | **STC107P011** | 100 |
| 6 | **Left High Lateral Element with Rail Hook** | **STC107TS60** | 25 |
| 7 | **Left High Lateral Element with Rail Hook** | **STC107TS73** | 25 |
| 8 | **Right High Lateral Element with Rail Hook** | **STC107TD60** | 25 |
| 9 | **Right High Lateral Element with Rail Hook** | **STC107TD73** | 25 |
| 10 | **High Lateral Element Without Rail Hook** | **STC107T060** | 100 |
| 11 | **High Lateral Element Without Rail Hook** | **STC107T073** | 100 |
| 12 | **Protection Cover** | **STC107C___** | 50 |
| | | **STC107D___** | 50 |
| 13 | **Screw for Head Fastening (L= 15 mm)** | **STC000V015** | 100 |
| 13 | **Screw for Head Fastening (L= 25 mm)** | **STC000V025** | 100 |
| 14 | **Screw for Cover Fastening (L= 15 mm)** | **STC000VC15** | 100 |
| 15 | **Bracket for Mounting on the Wall** | **STC000F000** | 100 |
| 16 | **Size of STD Adapter for 3.937 in (100 mm) PCB** | **STC107A039** | 50 |

## 1

### Custom Sized Cut Profile

**For a Custom Sized Cut Profile, the length of the Central Body must be equal to the length of the PCB minus 3.5 mm (.138 inch). It's advised to round off the figure to the higher whole number.**
The length of the support, including the Lateral Elements, is equal to the length of the Profile plus 6 mm (.236 inch).

### Example

| For PCB | | Cut Profile sizes L | | Support Length | | Part-Number | Pcs / pack |
|---|---|---|---|---|---|---|---|
| (mm) | (in) | (mm) | (in) | (mm) | (in) | | |
| 38.50 | 1.516 | 35,00 | 1.378 | 41.00 | 1.614 | **STC107S035** | 50 |
| 55.00 | 2.165 | 51,50 | 2.028 | 57.50 | 2.264 | **STC107S051** | 50 |
| 73.50 | 2.894 | 70,00 | 2.756 | 76.00 | 2.992 | **STC107S070** | 50 |
| -------- | -------- | Profile for PCB with L = 2 m (78.740 in) | | -------- | -------- | **STC1072000** | 10 |
| L + 3.5 | L +.137 | Custom | | L + 6 | L +.236 | **STC107L_ _ _** | 100 |

## 12

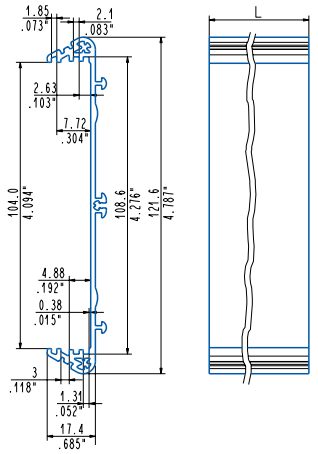
### Custom sized Protection Cover

**For Custom sized Protection Cover, length of the piece must be equal to the corresponding length of the Profile, that is the length of the PCB minus 3.5 mm (.137 in). It's advised to round off the figure to the higher whole number.** The Length of the Support, including the Lateral Elements, is equal to the Length of the Profile plus 6 mm (.236 in).

### Example

| L | | Part-Number | Pcs / pack | For PCB | | Support Length | |
|---|---|---|---|---|---|---|---|
| | | | | (mm) | (in) | (mm) | (in) |
| Custom size | for 60 mm (2.362 in) Protection Cover | **STC107C___** | 50 | L + 3.5 | L +.137 | L + 6 | L +.236 |
| 70 mm (2.756 in) | for 60 mm (2.362 in) Protection Cover | **STC107C070** | 50 | 73.5 | 2.893 | 76 | 2.992 |
| Custom size | for 73 mm (2.874 in) Protection Cover | **STC107D___** | 50 | L + 3.5 | L +.137 | L + 6 | L +.236 |
| 70 mm (2.756 in) | for 73 mm (2.874 in) Protection Cover | **STC107D070** | 50 | 73.5 | 2.893 | 75 | 2.992 |

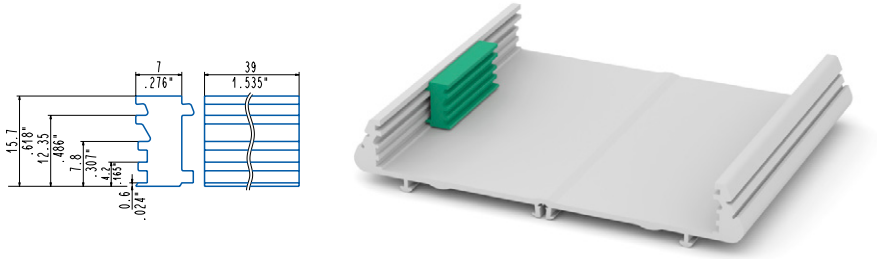
1




**Custom sized Cut Extruded Profile**

**STC107S _ _, STC1072000, STC107L_ _ _**

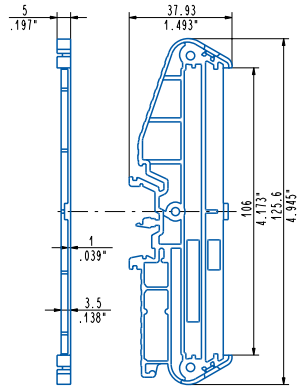
16




**Size Adapter for 100 mm (3.937 in) PCBs**

**STC107A039**

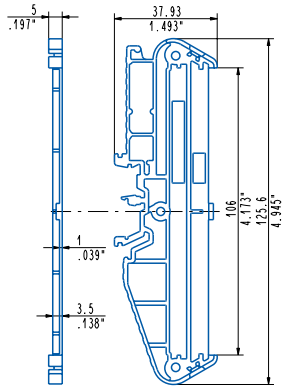
3




**Right Lateral Element with Rail Hook**

**STC107TDX0**

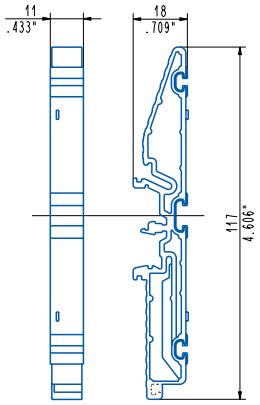
2




**Left Lateral Element with Rail Hook**

**STC107TSX0**

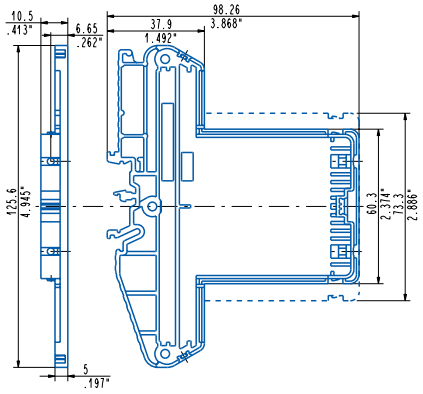
5




**DIN Rail Hook**

**STC107P011**

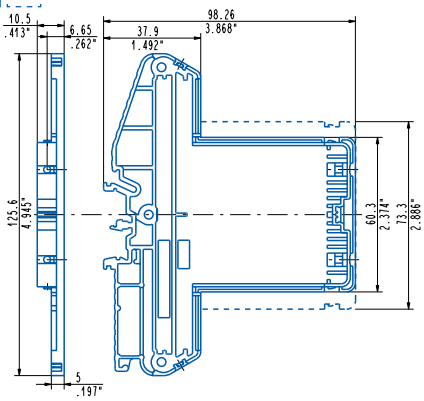
6 7




**Left High Lateral Element with Rail Hook (60 or 73 mm)**

**STC107TS60 - STC107TS73**

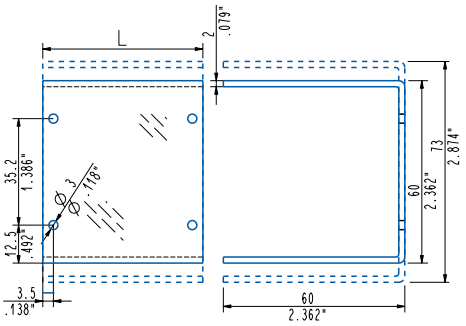
8 9




**Right High Lateral Element with Rail Hook (60 or 73 mm)**

**STC107TD60 - STC107TD73**

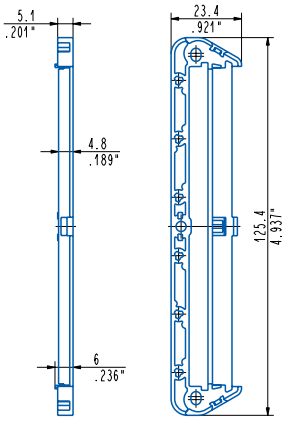
12 12




**Custom sized 60 or 73 mm (2.362 or 2.874 in) Protection Cover**

**STC107C_ _ _ - STC107D_ _ _**

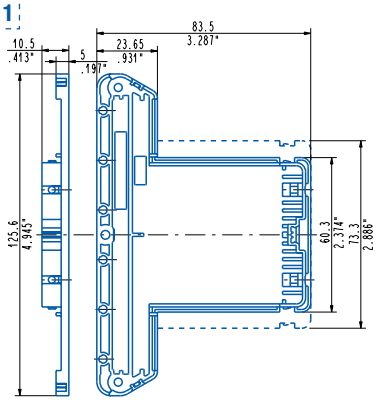
4




**Head Without Rail Hook**

**STC107T000**

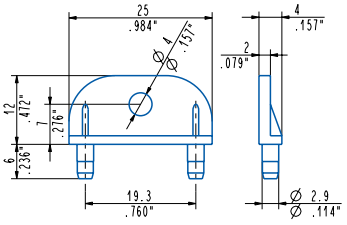
10 11




**High Lateral Element Without Rail Hook (60 or 73 mm)**

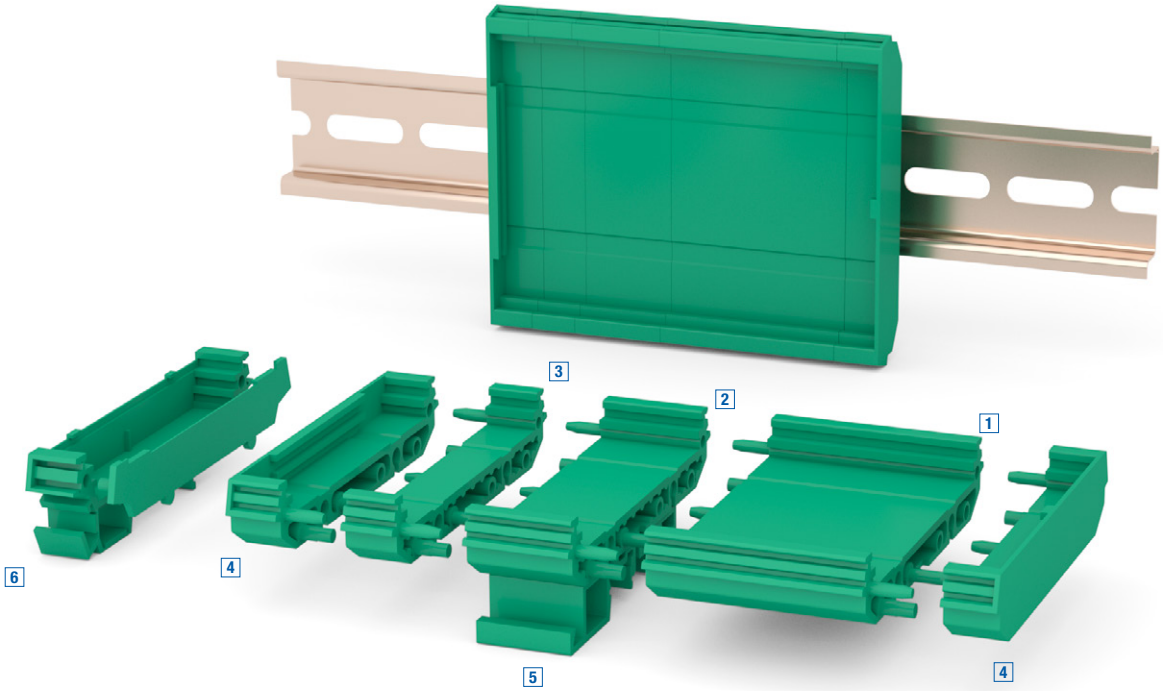
**STC107T060 - STC107T073**

15




**Bracket for Mounting on the Wall**

**STC000F000**




### Functional characteristics

**Width of PCB:** 72 mm (2.835 in)
**Support Type:** modular
**Standard Colour:** green
**Thickness of PCB:** .063 in (1.6 mm)
**Material:** PA6.6 (UL94-V0)

| Description | | Part-Number | Pcs / pack |
|---|---|---|---|
| 1 | **Base Element** | **SMC072S045** | 50 |
| 2 | **Base Element** | **SMC072S022** | 50 |
| 3 | **Base Element** | **SMC072S011** | 50 |
| 4 | **Lateral Element** | **SMC072T011** | 50 |
| 5 | **DIN Rail Hook** | **SMC072P020** | 50 |
| 6 | **Complete Module** (12.5 mm for 11 mm PCB) | **SMC072T013** | 50 |

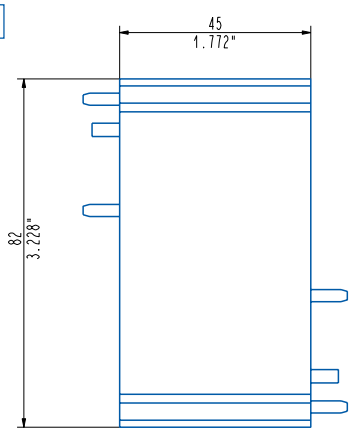
### Modular Supports for 72 mm (2.835 in) Wide Boards

**Base Elements** with two **Lateral Elements** and one or two **DIN Rail Hooks** are combined together in order to obtain PCB Supports according to the following table.
For **11 mm (.433 in) wide PCBs**, a single **Complete Module** is provided by assembling two parts together.

The following table shows the configuration of support elements and the corresponding total length of the assembled support and the length of the PCB.

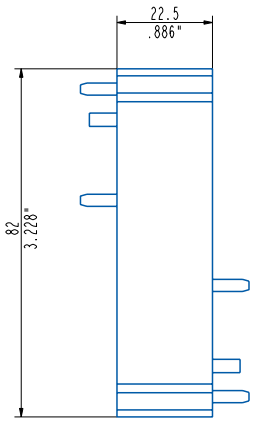
| Length of PCB | | Length of support | | Lateral Element | Base Element | Base Element | Base Element | DIN Rail Hook | Complete Module |
|---|---|---|---|---|---|---|---|---|---|
| (mm) | (in) | (mm) | (in) | SMC072T011 | SMC072S011 | SMC072S022 | SMC072S045 | SMC072P020 | SMC072T013 |
| 11,00 | .433 | 12,50 | .492 | | | | | | 1 |
| 20,00 | .787 | 22,50 | .886 | 2 | | | | 1 | |
| 31,25 | 1.230 | 33,75 | 1.329 | 2 | 1 | | | 1 | |
| 42,50 | 1.673 | 45,00 | 1.772 | 2 | | 1 | | 2 | |
| 53,75 | 2.116 | 56,25 | 2.215 | 2 | 1 | 1 | | 2 | |
| 65,00 | 2.559 | 67,50 | 2.657 | 2 | | | 1 | 2 | |
| 76,25 | 3.002 | 78,75 | 3.100 | 2 | 1 | | 1 | 2 | |
| 87,50 | 3.445 | 90,00 | 3.543 | 2 | | 1 | 1 | 2 | |
| 98,75 | 3.888 | 101,25 | 3.986 | 2 | 1 | 1 | 1 | 2 | |
| 110,00 | 4.331 | 112,50 | 4.429 | 2 | | | 2 | 2 | |
| 121,25 | 4.774 | 123,75 | 4.872 | 2 | 1 | | 2 | 2 | |

1



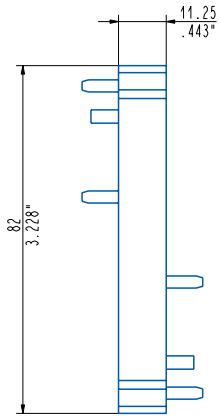

**Base Element**
**SMC072S045**

2



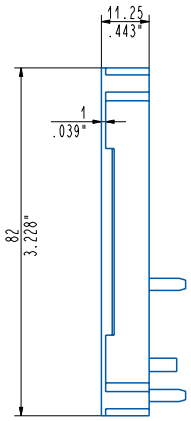

**Base Element**
**SMC072S022**

3



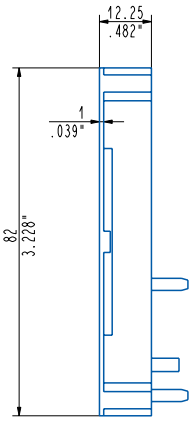

**Base Element**
**SMC072S011**

4



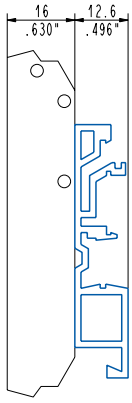

**Lateral Element**
**SMC072T011**

4



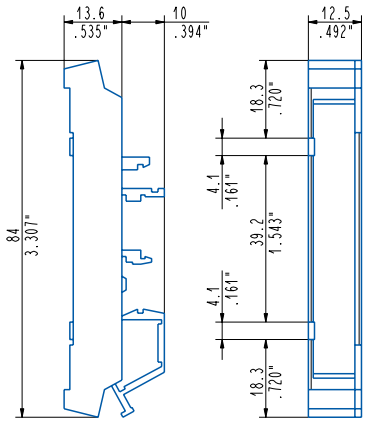

**Lateral Element**
**SMC072T012**

5

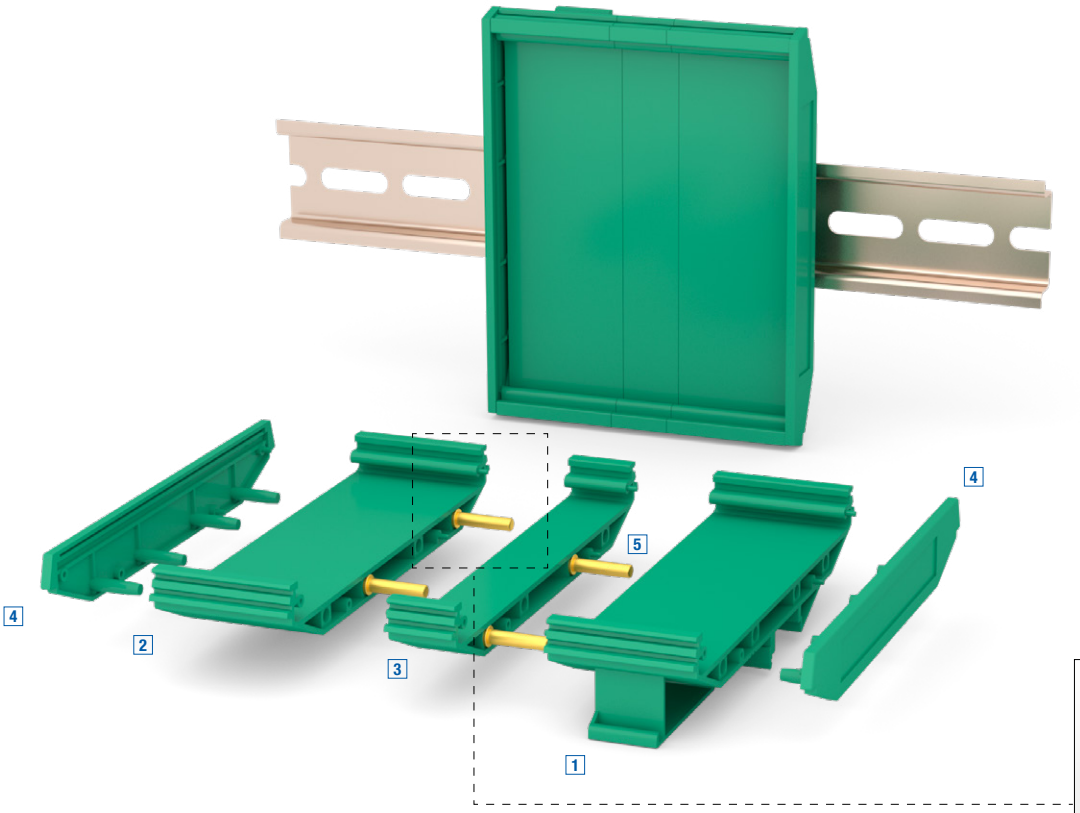


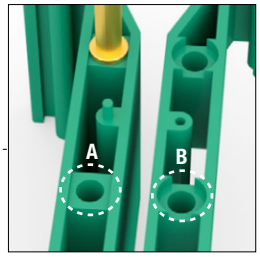

**DIN Rail Hook**
**SMC072P020**

6




**Complete Module**
**SMC072T013**




**Attention,** hook the base elements by fastening side **A** (filled) with side **B** (empty).

### Functional characteristics

| | |
|---|---|
| **Width of PCB:** | 107.5 mm (4.232 in) |
| **Support Type:** | modular |
| **Standard Colour:** | green |
| **Thickness of PCB:** | 1.6 mm ( .063 in) |
| **Material:** | PA6.6 (UL94-V0) |

| | Description | Part-Number | Pcs / pack |
|---|---|---|---|
| 1 | **Base Element with Hook** | **SMC107P035** | 50 |
| 2 | **Base Element** | **SMC107S035** | 50 |
| 3 | **Base Element** | **SMC107S016** | 50 |
| 4 | **Lateral Element** | **SMC107T000** | 100 |
| 5 | **Stiffening Copper Alloy Element** | **SMC107S00T** | 100 |

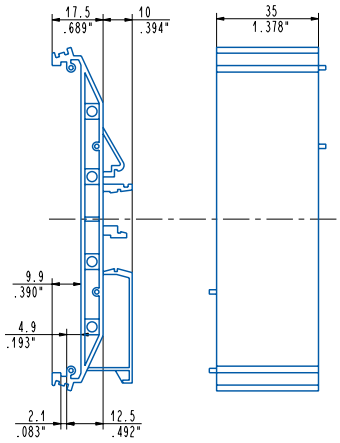
### Modular Supports for 107.5 mm (4.232 in) Wide Boards

**Base Elements** and **Lateral Elements** are combined together to obtain PCB Supports according to the table on the next page. At least one of the **Base Elements** must be provided with a **Hook**.
2 to 4 **Stiffening Copper Alloy Elements** must be inserted between any two **Base Elements**. For a correct mounting of the PCB Support, if an **SMC107S016 Base Element** is used, it **must be positioned between two SMC107S035 or SMC107P035 Base Elements**.

The following table shows the configuration of support elements and the corresponding total length of the assembled support and the length of the PCB.

| Length of PCB | | Length of support | | Lateral Element | Base Element | Base Element | Base Element With Hook | Stiffening Copper Alloy Element |
|---|---|---|---|---|---|---|---|---|
| (mm) | (in) | (mm) | (in) | SMC107T000 | SMC107S016 | SMC107S035 | SMC107P035 | SMC107S00T |
| 38.50 | 1.516 | 40.00 | 1.575 | 2 | | | 1 | |
| 55.00 | 2.165 | 56.50 | 2.224 | 2 | 1 | | 1 | |
| 73.50 | 2.894 | 75.00 | 2.953 | 2 | | | 2 | 2 ÷ 4 |
| 90.00 | 3.543 | 91.50 | 3.602 | 2 | 1 | | 2 | 4 |
| 108.50 | 4.272 | 110.00 | 4.331 | 2 | | 1 | 2 | 4 ÷ 8 |
| 125.00 | 4.921 | 126.50 | 4.980 | 2 | 1 | 1 | 2 | 6 ÷ 8 |
| 143.50 | 5.650 | 145.00 | 5.709 | 2 | | 2 | 2 | 6 ÷ 12 |
| 160.00 | 6.299 | 161.50 | 6.358 | 2 | 1 | 2 | 2 | 8 ÷ 12 |
| 178,50 mm | 7.028 in | 180,00 mm | 7.087 in | 2 | | 3 | 2 | 8 ÷ 16 |

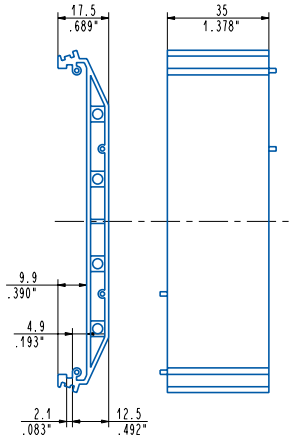
1




**Base Element with Hook**

**SMC107P035**

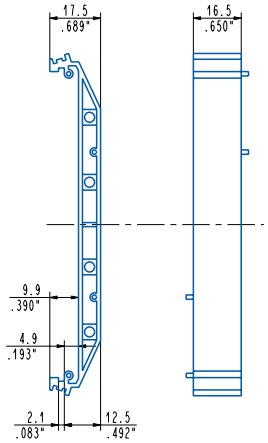
2




**Base Element**

**SMC107S035**

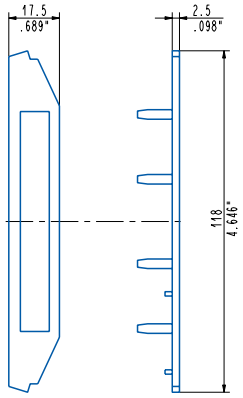
3




**Base Element**

**SMC107S016**

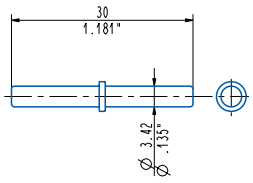
4




**Lateral Element**

**SMC107T000**

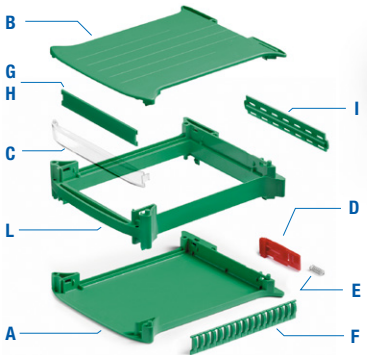
5




**Stiffening Copper Alloy Element**

**SMC107S00T**

# SRC 175 DIN Rail Boxes



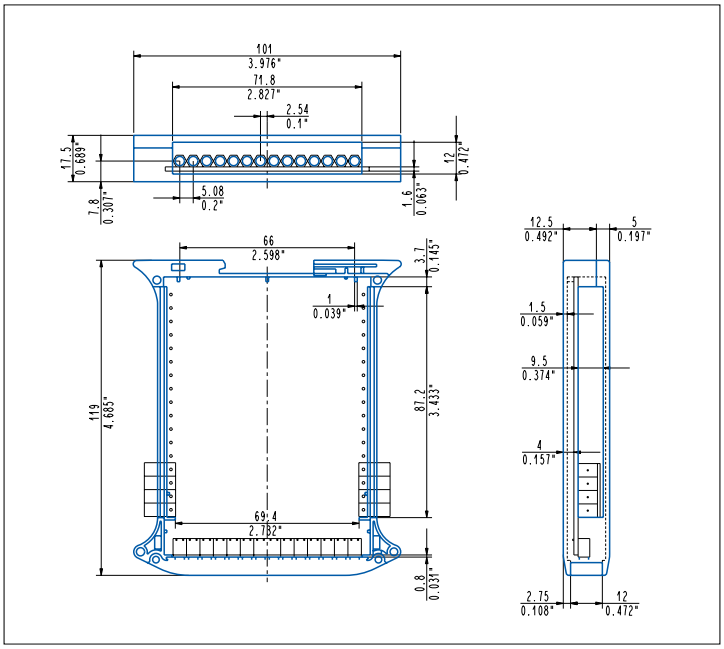

### Functional characteristics

| | |
|---|---|
| **Standard colour:** | green (-V) |
| **Optional colour:** | black (N), grey (G) |
| **Material:** | PC/ABS (UL94 - V0) blend |
| **Dimensions:** | 101 x 17.5 x 120 mm |
| **Dimensions of PCB:** | 77 x 104 mm |
| **Thickness of PCB :** | 1.6 mm |
| **Number of poles (5 and 5.08mm pitch):** | 17 each side |
| **Maximum height of components:** | 10 mm |

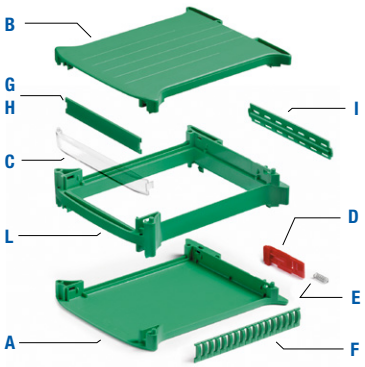
| Code and description of components | kit / pack |
|---|---|
| **SRC1750000-V** | 50 |
| Complete kit consisting of a base (**A**), a top (**B**), a transparent front cover (**C**), a hook (**D**) and a spring (**E**) | |
| **A SRC0000125-V** | 12.5 mm Base |
| **B SRC0000050-V** | 5 mm Top |
| **C SRC000012S** | 12 mm Transparent Front Cover |
| **D SRC000000G-R** | Hook |
| **E SRC000000M** | Spring |

### Accessories

| | |
|---|---|
| **F SRC000000C-V** | Breakable side spit cover |
| **G SRC000012P-V** | 12 mm green Front panel |
| **H SRC000012P-T** | 12 mm Transparent red Front panel |
| **I SRC000000A-V** | Internal Adapter |
| **L SRC000000D-V** | Spacer |




# SRC 225 DIN Rail Boxes



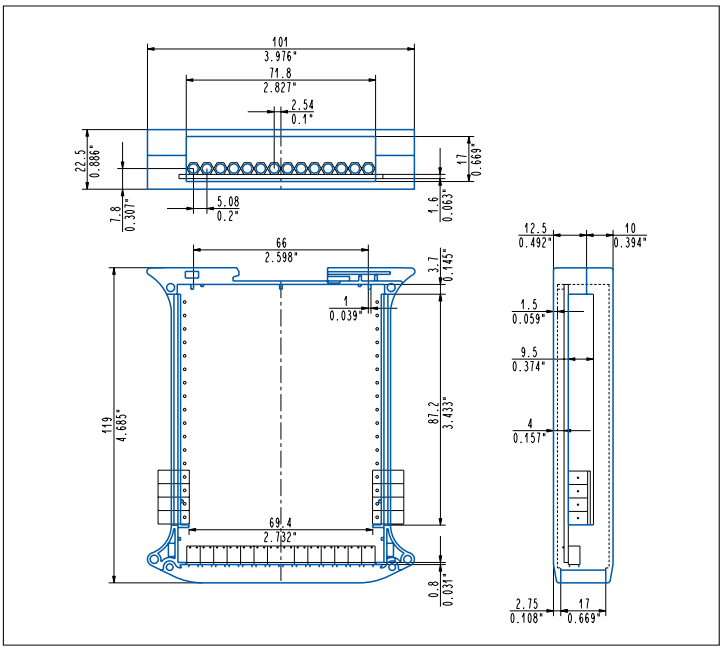

### Functional characteristics

| | |
|---|---|
| **Standard colour:** | green (-V) |
| **Optional colour:** | Black (N), Grey (G) |
| **Material:** | PC/ABS (UL94 – V0) blend |
| **Dimensions:** | 101 x 22.5 x 120 mm |
| **Dimensions of PCB:** | 77 x 104 mm |
| **Thickness of PCB:** | 1.6 mm |
| **Number of poles (5 and 5.08mm pitch):** | 17 each side |
| **Maximum height of components:** | 15 mm |

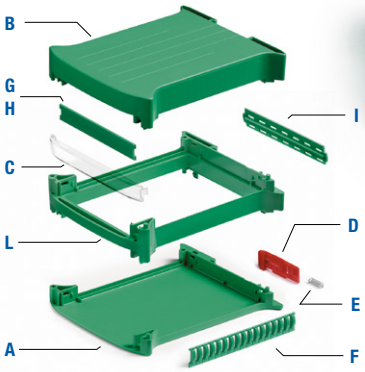
| Code and description of components | kit / pack |
|---|---|
| **SRC2250000-V** | 50 |
| Complete kit consisting of a base (**A**), a top (**B**), a transparent front cover (**C**), a hook (**D**) and a spring (**E**) | |
| **A SRC0000125-V** | 12.5 mm Base |
| **B SRC0000100-V** | 10 mm Top |
| **C SRC000017S** | 17 mm Transparent Front Cover |
| **D SRC000000G-R** | Hook |
| **E SRC000000M** | Spring |

### Accessories

| | |
|---|---|
| **F SRC000000C-V** | Breakable side spit cover |
| **G SRC000017P-V** | 17 mm green Front panel |
| **H SRC000017P-T** | 17 mm Transparent red Front panel |
| **I SRC000000A-V** | Internal Adapter |
| **L SRC000000D-V** | Spacer |



# SRC 350 DIN Rail Boxes



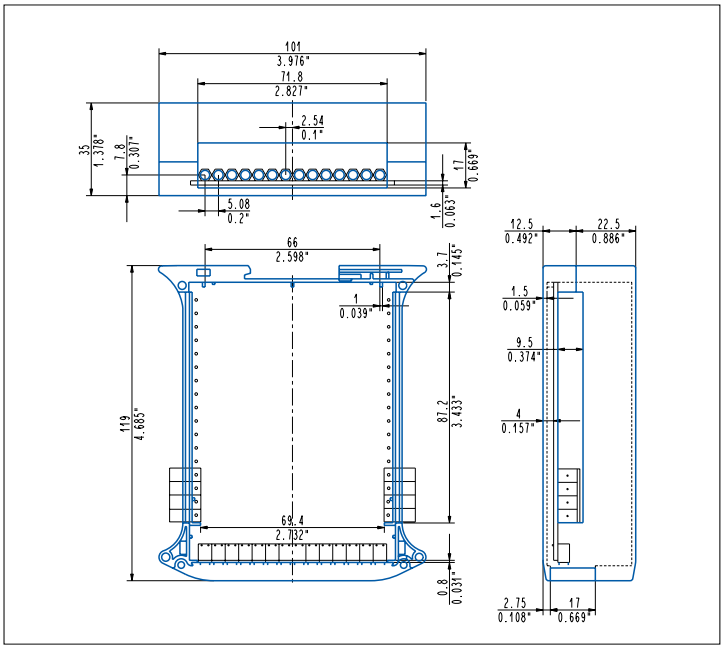

### Functional characteristics

| | |
|---|---|
| **Standard colour:** | green (-V) |
| **Optional colour:** | black (N), Grey (G) |
| **Material:** | PC/ABS (UL94 – V0) blend |
| **Dimensions:** | 101 x 35.0 x 120 mm |
| **Dimensions of PCB:** | 77 x 104 mm |
| **Thickness of PCB:** | 1.6 mm |
| **Number of poles (5 and 5.08mm pitch):** | 17 each side |
| **Maximum height of components:** | 27.5 mm |

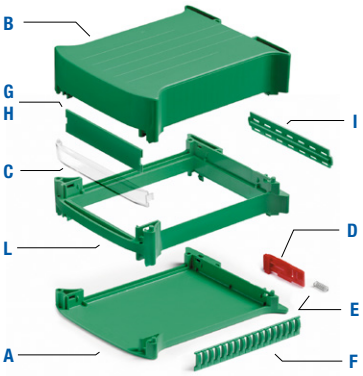
| Code and description of components | kit / pck |
|---|---|
| **SRC3500000-V** | 50 |
| Complete kit consisting of a base (**A**), a top (**B**), a transparent front cover (**C**), a hook (**D**) and a spring (**E**) | |
| **A SRC0000125-V** | 12.5 mm Base |
| **B SRC0000225-V** | 22.5 mm Top |
| **C SRC000017S** | 17 mm Transparent Front Cover |
| **D SRC000000G-R** | Hook |
| **E SRC000000M** | Spring |

### Accessories

| | |
|---|---|
| **F SRC000000C-V** | Breakable side spit cover |
| **G SRC000017P-V** | 17 mm green Front panel |
| **H SRC000017P-T** | 17 mm Transparent red Front panel |
| **I SRC000000A-V** | Internal Adapter |
| **L SRC000000D-V** | Spacer |




# SRC 450 DIN Rail Boxes



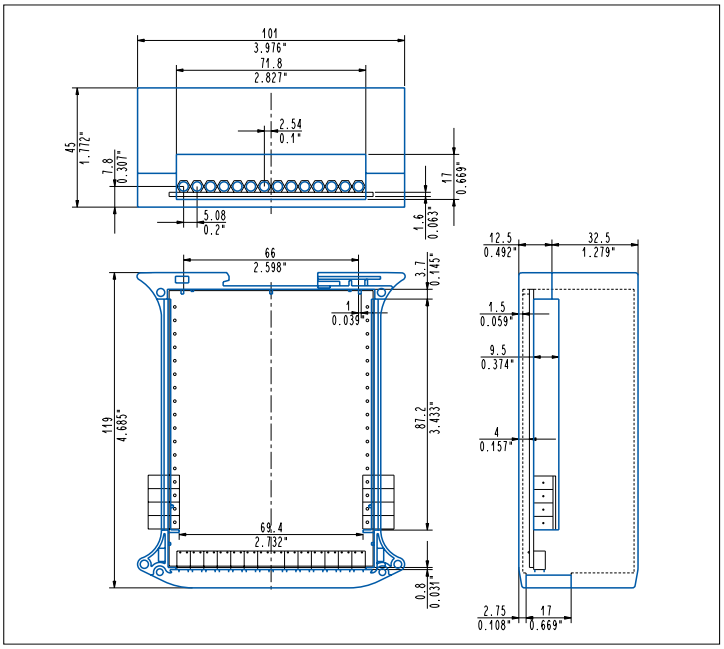

### Functional characteristics

| | |
|---|---|
| **Standard colour:** | green (-V) |
| **Optional colour:** | Black (N), Grey (G) |
| **Material:** | PC/ABS (UL94 – V0) blend |
| **Dimensions:** | 101 x 45.0 x 120 mm |
| **Dimensions of PCB:** | 77 x 104 mm |
| **Thickness of PCB:** | 1.6 mm |
| **Number of poles (5 and 5.08mm pitch):** | 17 each side |
| **Maximum height of components:** | 37.5 mm |

| Code and description of components | kit / pck |
|---|---|
| **SRC4500000-V** | 25 |
| Complete kit consisting of a base (**A**), a top (**B**), a transparent front cover (**C**), a hook (**D**) and a spring (**E**) | |
| **A SRC0000125-V** | 12.5 mm Base |
| **B SRC0000325-V** | 32.5 mm Top |
| **C SRC000017S** | 17 mm Transparent Front Cover |
| **D SRC000000G-R** | Hook |
| **E SRC000000M** | Spring |

### Accessories

| | |
|---|---|
| **F SRC000000C-V** | Breakable side spit cover |
| **G SRC000017P-V** | 17 mm green Front panel |
| **H SRC000017P-T** | 17 mm Transparent red Front panel |
| **I SRC000000A-V** | Internal Adapter |
| **L SRC000000D-V** | Spacer |




L = pitch x (poles - 1)

The drawing refers to only a pitch, please see our complete range of products by visiting our website on **www.sauro.net** or refering to your representative Sales Manager

Board to board connection  Wire to wire connection

# Utilities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| CONNECTORS COMBINATIONS | 100 |
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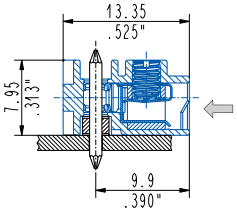
| PACKAGING | 113 |
| BY THE LAW | 114 |

# COMPATIBILITY OF CONNECTORS

| | CXF | CSF | CLF | CHF | CHF D. | CTF | CKF | CFF | CBF | CIF | CVF | CCF | CCF D. | CGF CGFH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CSM | ✓ 01 Page 100 | ✓ 02 Page 100 | | | | | | | | | | | | |
| CSMH | ✓ 01 Page 100 | ✓ 02 Page 100 | | | | | | | | | | | | |
| CSMD | ✓ 01 Page 100 | ✓ 02 Page 100 | | | | | | | | | | | | |
| CLMH__S | | | ✓ 03 Page 100 | | ✓ 08 Page 101 | | | | | | | | | |
| CLMH__O | | | | ✓ 04 Page 100 | | | | | | | | | | |
| CTM | | | | | | ✓ 05 Page 100 | ✓ 06 Page 101 | ✓ | ✓ 07 Page 101 | | | | | |
| CTMH | | | | | | ✓ 05 Page 100 | ✓ 06 Page 101 | ✓ | ✓ 07 Page 101 | | | | | |
| CTM D. | | | | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| CTMH D. | | | | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| CIM | | | | | | | | | | ✓ 09 Page 101 | ✓ 18 Page 102 | ✓ 21 Page 103 | ✓ 13 Page 102 | BB 25 Page 104 |
| CIMH | | | | | | | | | | ✓ 09 Page 101 | ✓ 18 Page 102 | ✓ 21 Page 103 | ✓ 13 Page 102 | BB 25 Page 104 |
| CPM H. | | | | | | | | | | ✓ | ✓ | ✓ | ✓ | BB |
| CPM | | | | | | | | | | ✓ 10 Page 101 | ✓ 19 Page 102 | ✓ 22 Page 103 | | BB 26 Page 105 |
| CPMH | | | | | | | | | | ✓ 10 Page 101 | ✓ 19 Page 102 | ✓ 22 Page 103 | | BB 26 Page 105 |
| CRM | | | | | | | | | | ✓ 11 Page 101 | ✓ 20 Page 102 | ✓ 23 Page 103 | | BB 27 Page 105 |
| CIMH N. | | | | | | | | | | ✓ 12 Page 102 | ✓ | ✓ | ✓ | BB |
| CGM | | | | | | | | | | WW 14 Page 102 | WW 15 Page 102 | WW 16 Page 102 | WW 17 Page 102 | ✓ 24 Page 103 |

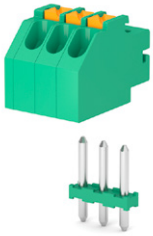
# CONNECTORS COMBINATIONS

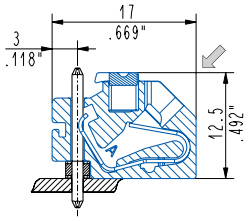
## 01 CXF + CSM/CSMH/CSMD




CXF__091 + CSM

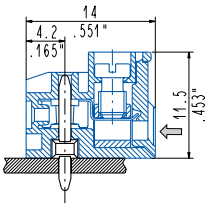
## 04 CHF + CLMH



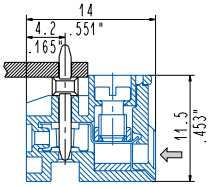



CHF__008 + CLMH__0

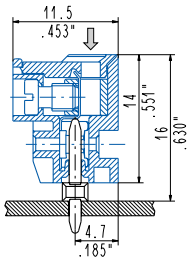
## 02 CSF + CSM/CSMH



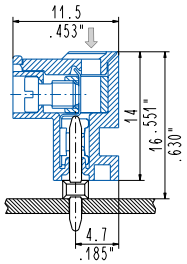

CSF__00_/CSF__0U_ + CSM



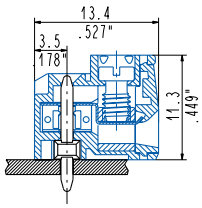

CSF__00_/CSF__0U_ + CSM



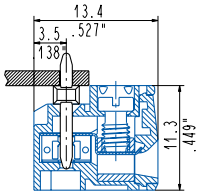

CSF__00_/CSF__0U_ + CSM



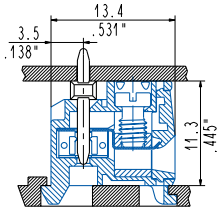

CSF__01_ + CSM




CSF__0J_ + CSM

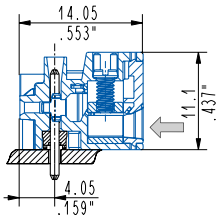



CSF__0F_ + CSM

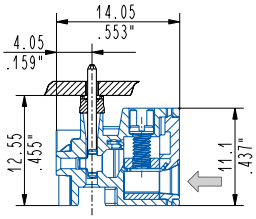



CSF__0S_ + CSM

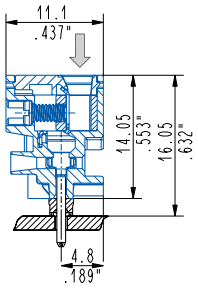
## 03 CLF + CLMH




CLF__0U8 + CLMH__S

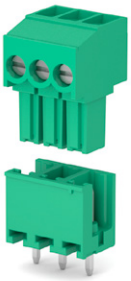


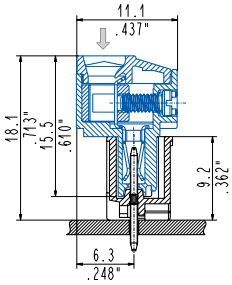

CLF__0U8 + CLMH__S



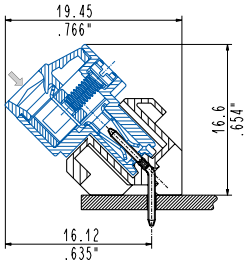

CLF__0U8 + CLMH__S

## 05 CTF + CTM/CTMH

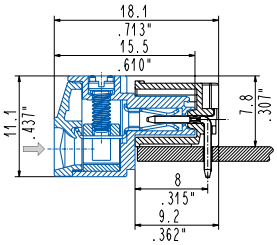




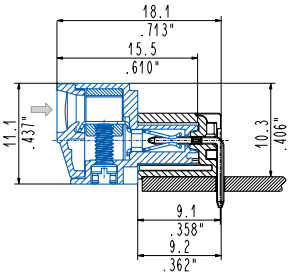

CTF + CTM__0__




CTF + CTMH__4__



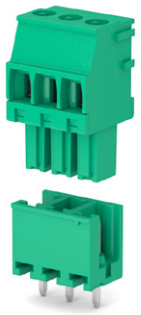

CTF + CTM__9__

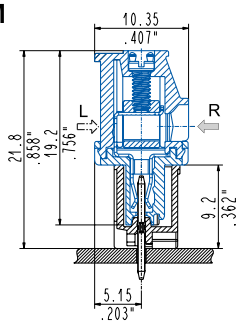



CTF + CTMH__5__

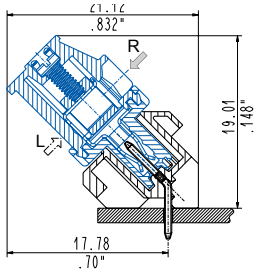
# CONNECTORS COMBINATIONS

## 06 CKF + CTM/CTHM

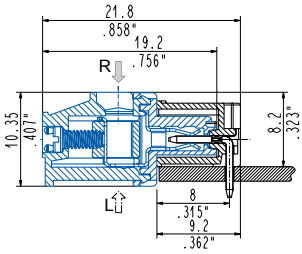




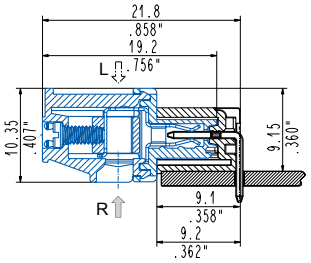

CKF + CTM__0__




CKF + CTMH__4__

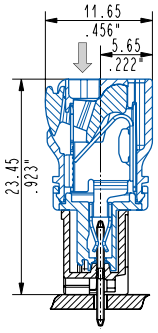



CKF + CTM__9__



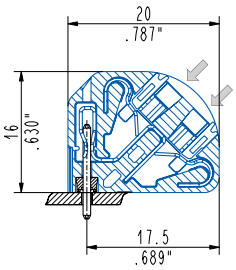

CKF + CTMH__5__

## 07 CBF + CTM/CTMH



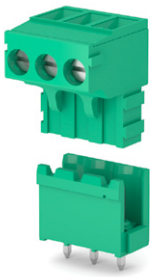

CBF__OR8 + CTM

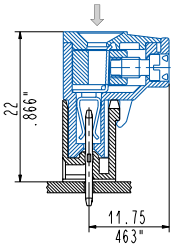
## 08 CHF Double + CLMH



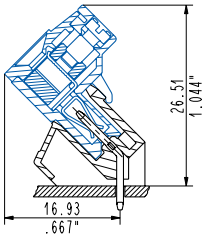

CHF__D08 + CLMH__S

## 09 CIF + CIM/CIMH

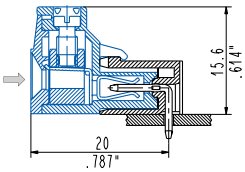




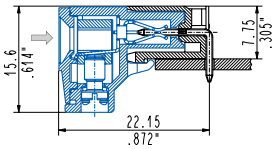

CIF + CIM__0__




CIF + CIM__4__

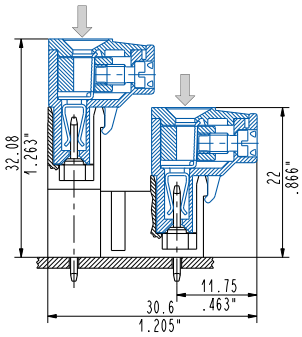



CIF + CIM__9__

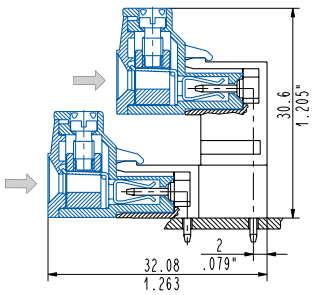



CIF + CIM__5__

## 10 CIF + CPM/CPMH

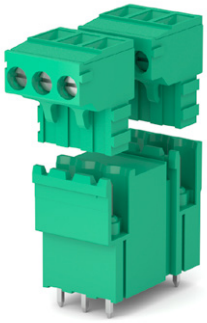


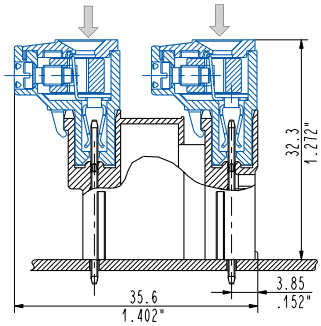

CIF + CPM__0__



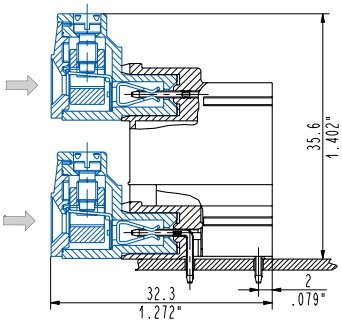

CIF + CPM__9__

## 11 CIF + CRM



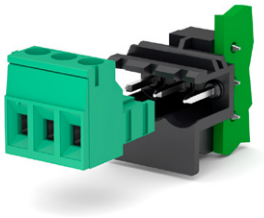


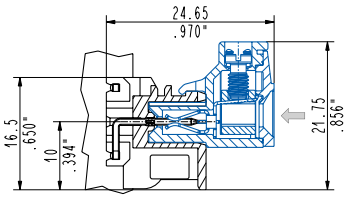

CIF + CRM__0__




CIF + CRM__9__

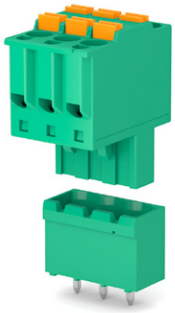
## 12 CIMH Normo + CIF

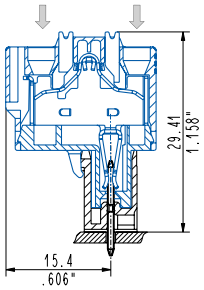





CIMH__NR1 + CIF

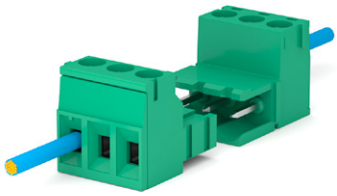
## 13 CCF Double + CIM/CIMH

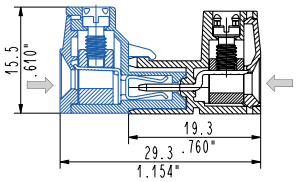





CCF__D01 + CIM

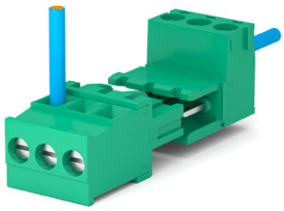
## 14 CIF + CGM - WIRE TO WIRE

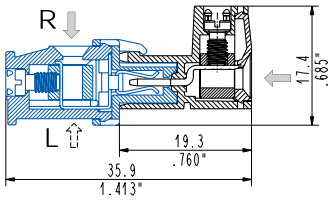





CIF__OM1 + CGM

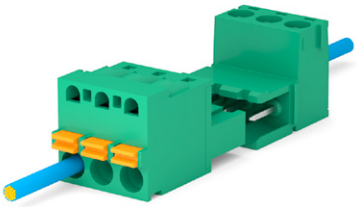
## 15 CVF + CGM - WIRE TO WIRE

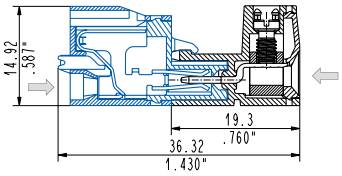





CVF__OM1 + CGM

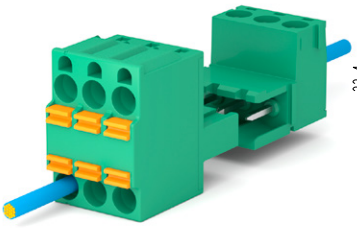
## 16 CCF + CGM - WIRE TO WIRE

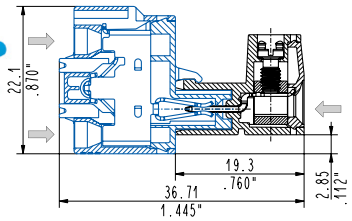





CCF__001 + CGM

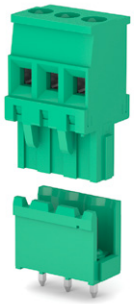
## 17 CCF Double + CGM - WIRE TO WIRE

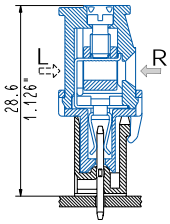




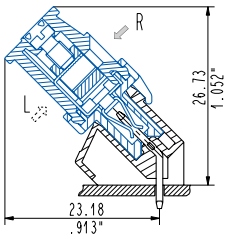

CCF__D01 + CGM

## 18 CVF + CIM/CIMH

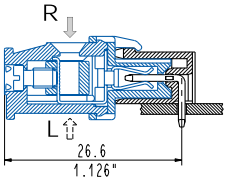




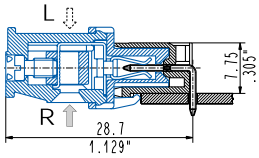

CVF + CIM__0__




CVF + CIM__4__

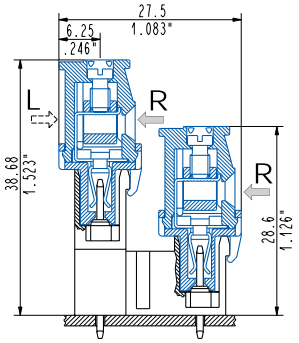



CVF + CIM__9__

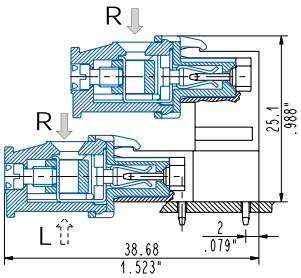



CVF + CIM__5__

## 19 CVF + CPM/CPMH

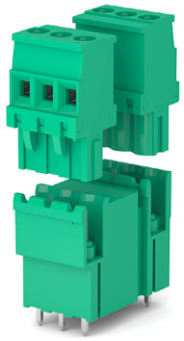


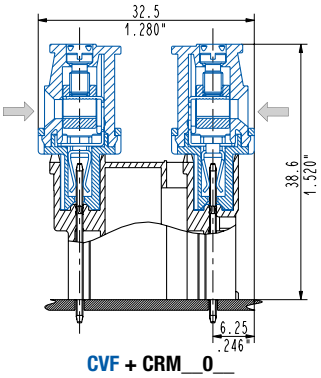

CVF + CPM__0__



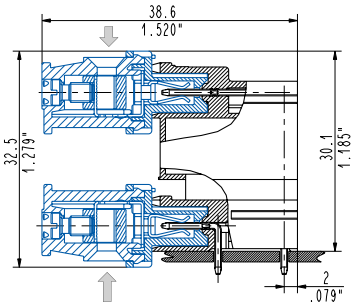

CVF + CPM__9__

## 20 CVF + CRM



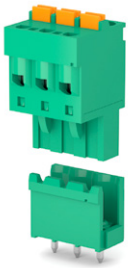


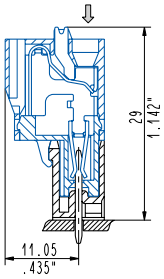

CVF + CRM__0__



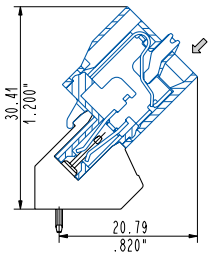

CVF + CRM__9__

## 21 CCF + CIM/CIMH

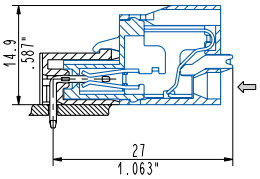




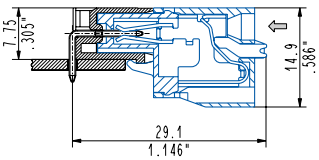

CCF + CIM__0__




CCF + CIM__4__

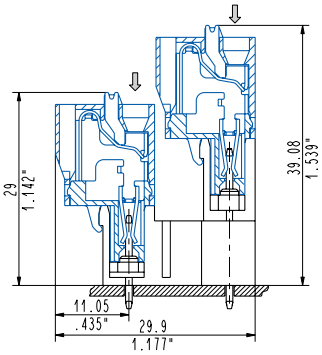



CCF + CIM__9__

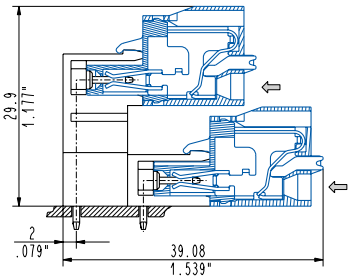



CCF + CIM__5__

## 22 CCF + CPM/CPMH

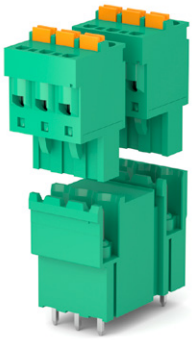


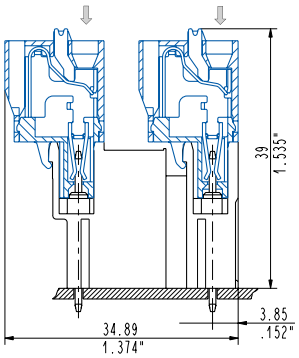

CCF + CPM__0__



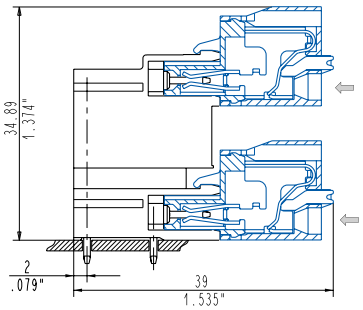

CCF + CPM__9__

## 23 CCF + CRM



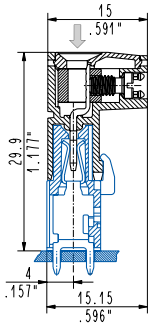



CCF + CRM__0__

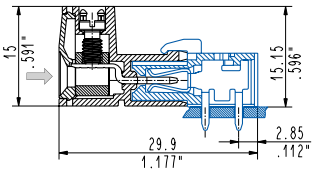



CCF + CPM__9__

## 24 CGF + CGM

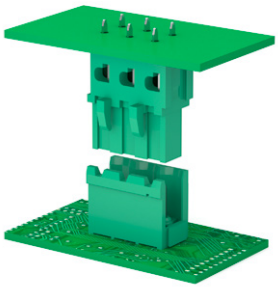


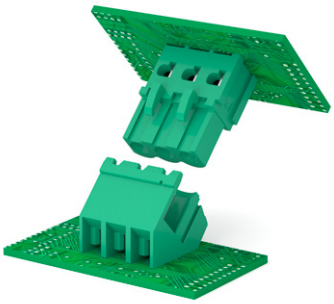

CGF__0_ + CGM

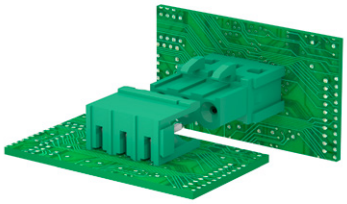


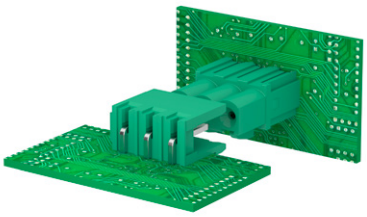

CGF__9__ + CGM

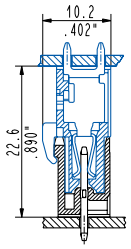
## 25 CGF + CIM/CIMH BOARD TO BOARD



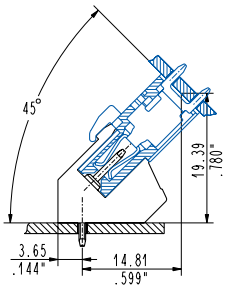









CGF__0__ + CIM__0__

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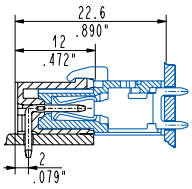
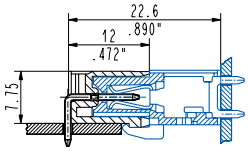



CGF__0__ + CIM__9__

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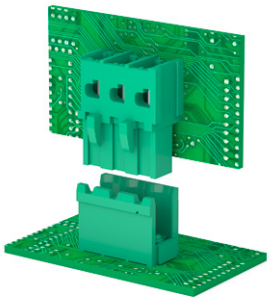

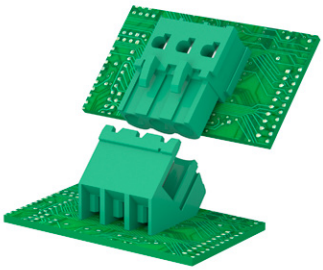

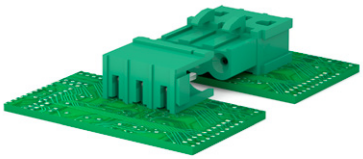

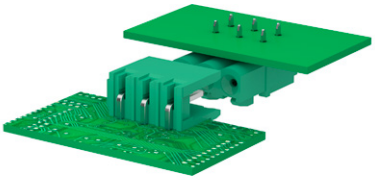

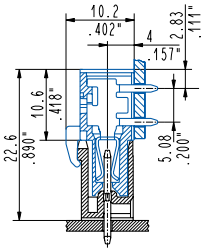


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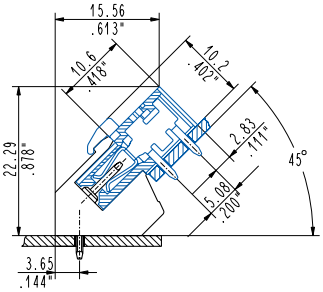


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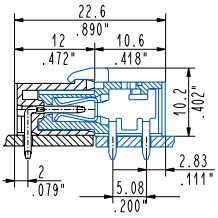


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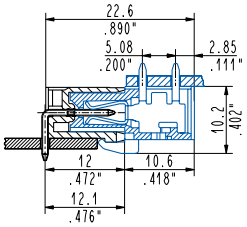
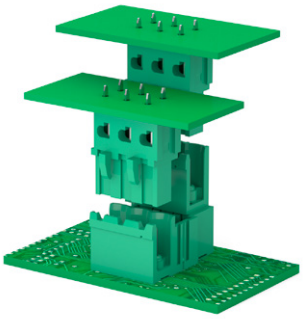
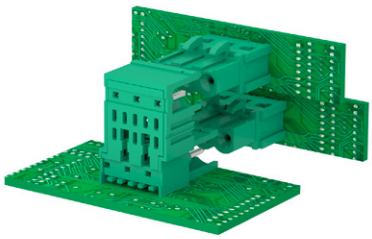
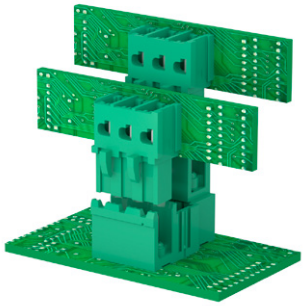
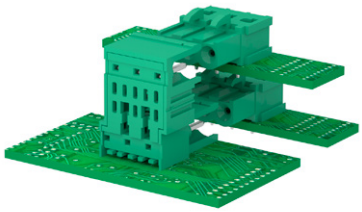
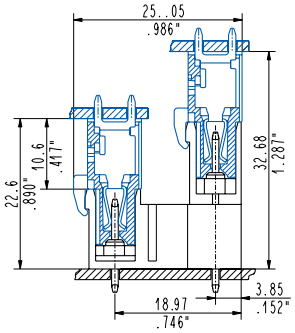



CGF__9__ + CIM__5__

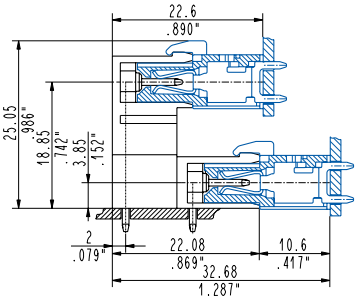
Your drawings and notes

## 26 CGF + CPM/CPMH BOARD TO BOARD




CGF__0__ + CPM__0__

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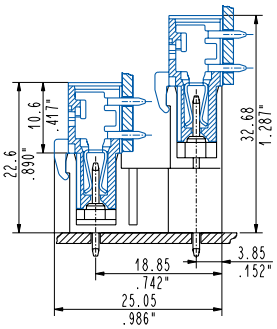


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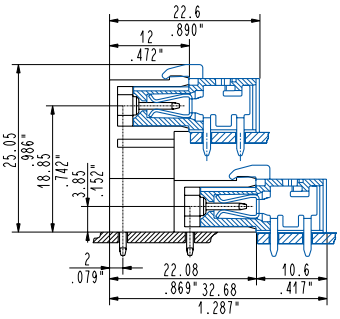
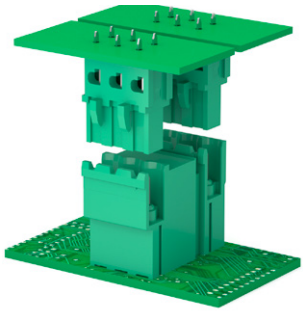
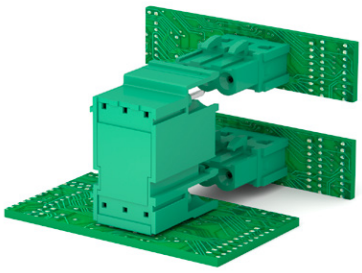
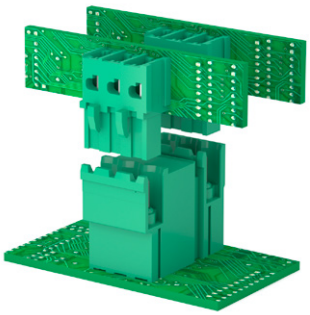
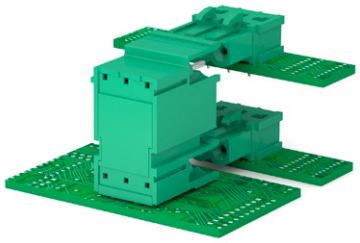
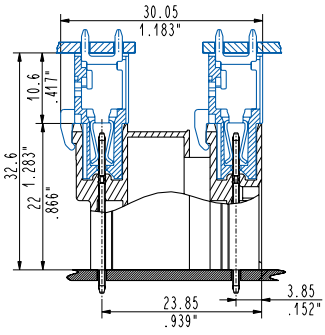


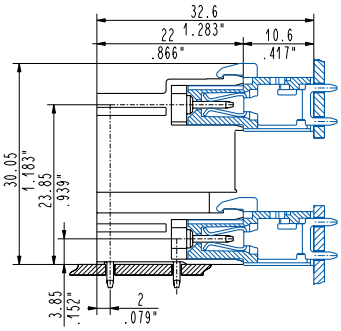

CGF__9__ + CPM__9__

## 27 CGF + CRM BOARD TO BOARD

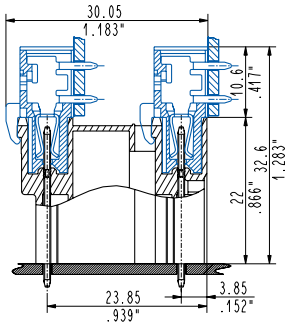







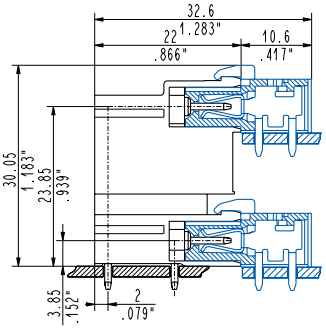

CGF__0__ + CRM__0__




CGF__0__ + CRM__9__




CGF__9__ + CRM__0__




CGF__9__ + CRM__9__

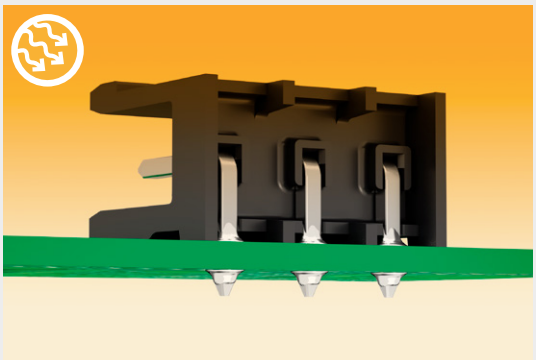
Your drawings and notes

## WAVE SOLDERING

| WAVE SOLDERING | | Lead-free tin soldering |
|---|---|---|
| PREHEATING | $T_0$ | 25°C (77°F) |
| | $T_1$ | up to 140°C (284°F) |
| | Time | from 70s to 90s |
| | Gradient | 1,5°C/s (34°F) |
| PEAK | $T_P$ | from 240°C (464°F) to 260°C (500°F) |
| | Time | from 2s to 5s |

## REFLOW SOLDERING

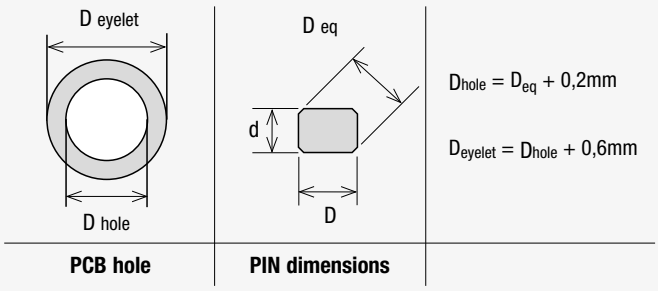
Sauro **STH** (**S**MD **T**hrough **H**ole) products are manufactured with a resistant to high temperature insulating material and therefore they can be soldered by all lead-free reflow processes with a peak temperature till 260°C/500°F, according to the related profile.



| REFLOW SOLDERING | | Lead-free tin soldering |
|---|---|---|
| PREHEATING | $T_0$ | 25°C (77°F) |
| | $T_1$ | from 150°C (302°F) to 190°C (374°F) |
| | Time | from 150s to 180s |
| | Gradient | 1,5°C/s (34°F/s) |
| PEAK | $T_P$ | up to 260°C (500°F) |
| | Time | from 10s to 30s |
| HEATING | $T_L$ | above 217°C (422°F) |
| | Time | from 60s to 150s |

## STH products' assembly:

### A PCB holes and eyelets sizing




$D_{hole} = D_{eq} + 0{,}2mm$

$D_{eyelet} = D_{hole} + 0{,}6mm$

### B Soldering paste quantity

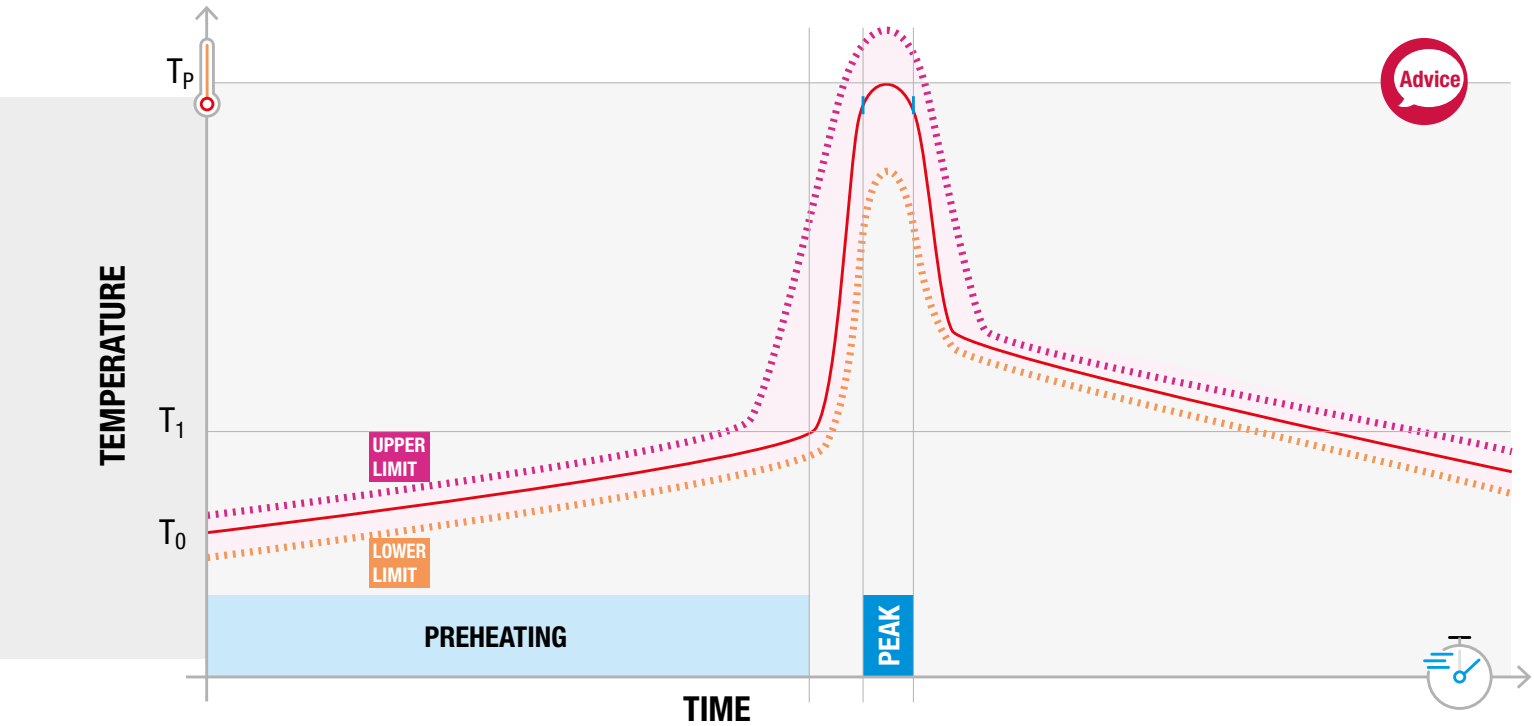
$$Vf = \left[ \frac{\pi \cdot d_f^{\,2}}{4} \cdot S \right]$$

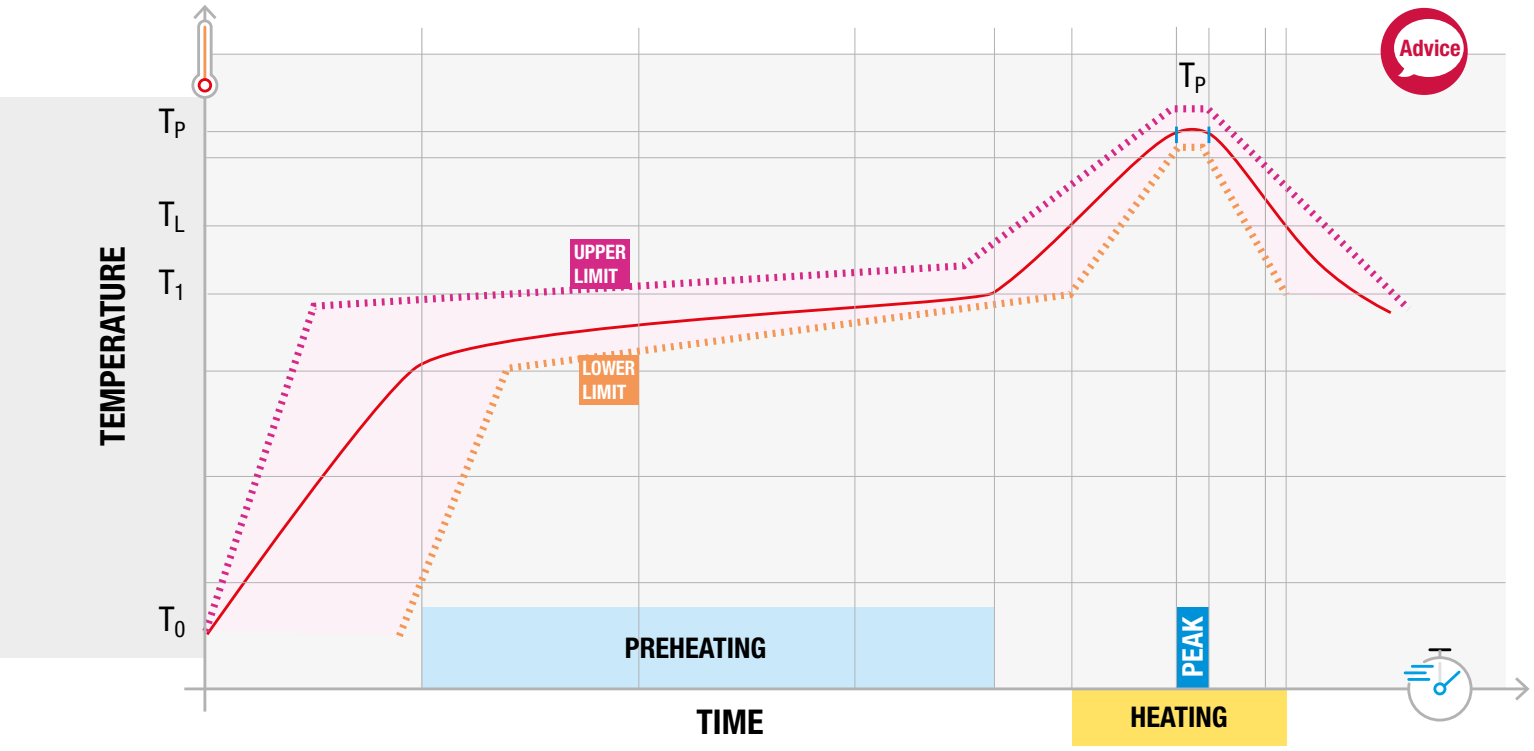
**Vn** = **Vf** - **Vp**

Paste volume = $V_n$ * K

**Where:**

**$V_f$** = Hole volume
**Vn** = Net volume
**Vp** = Soldering pin volume
**S** = PCB thickness
**df** = Hole on the PCB
**K** = Evaporation factor (equal to 2 if the foreseen evaporation is 50% of the placed paste)

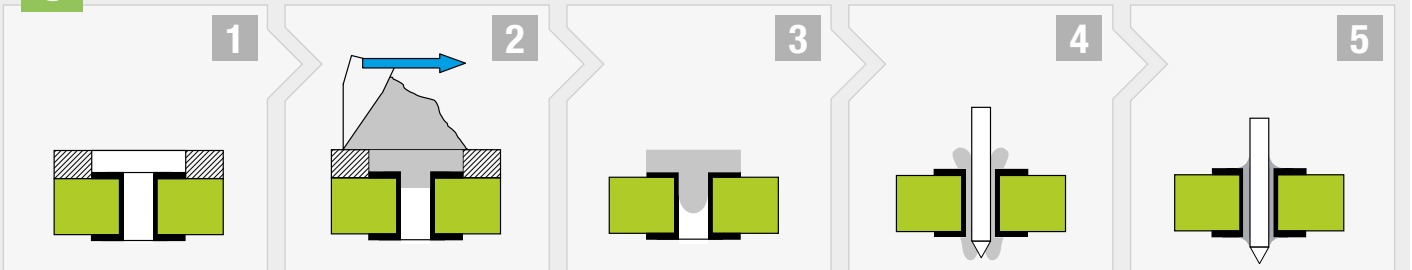



Ramp-up rate ($T_L$ to $T_P$) 3°C/second max.

## C Reflow soldering process

Advice




1. Stencil plate positioning on the PCB.
2. The soldering paste is deposited on the eyelets by means of a Doctor.
3. Once the stencil plate is removed, the paste remains in the hole.
4. The pin insertion drags part of the paste through the hole, until it overflows.
5. Passage in the oven and paste's reflow through the metallized hole.

# HOW TO ORDER

## TERMINAL BLOCKS

**Part-Number**

| Standard Code | | | | | | | Custom Code | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M | S | B | _ | 0 | 2 | 0 | 0 | 1 | - | 0 | 0 | 0 | 0 | P | _ |
| 1 | | | 2 | 3 | | | 4 | 5 | | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

| | |
|---|---|
| 1 | **Series:** **MSD, MBBD, MBBH, MTS, MTB, MTBH, MTBD, MSB, MSBH, MSBD, MSG, MSGH, MSM, MSMH, MSMH NORMO-ORTHOGONAL, MSFH, MSS, MSSH, MSQ, MSQH, MSP, MSPH, MPS, MPM, MPL, MPP, MMTH, MCB, MCBH, MCBD, MCCH, MCM, MCMH, MCQ, MCQH, MCQ DOUBLE, MCQH DOUBLE** |
| 2 | **Soldering technology:** **H** = Through Hole Reflow, **D** = Surface mounted |
| 3 | **N°of poles** |
| 4 | **Marking:** **0** = none, **A** = reverse, **B** = straight, **C** = various - **Other:** **MBBH: 9** = 90° - **MPS, MPM, MPL, MPP: D** = two double pins per pole, **S** = two pins per pole, **Z** = two zig-zag pins per pole - **MSBD: L** = external terminals, **0** = internal terminals - **MSMH NORMO-ORTHOGONAL: N** = normo-orthogonal - **MSB, MSBH: T** = 90° terminal aligned with cable entry h=7,5 mm, **Y** = 90° terminal aligned with cable entry h=12 mm, **U** = 0° terminal on the same side as screw, **S** = 0° terminal displaced from screw - **MSGH: 9** = 90° - **MSS: T** = 90° terminal aligned with cable entry - **MCB, MCBH, MCBD, MCCH: 4** = 45° - **MCM, MCMH: 0** = 16 A even with 1,5 mm², **E** = 16A with 2,5 mm² - **MCQ, MCQH: D** = double pin |
| 5 | **Mounting type:** **A** = side stackable, **M** = modular, **V** = with flanges - **MSD, MCB, MCBH, MCBD, MCCH: 0** = 0°, not side stackable - **MBBD, MBBH, MTBD: A** = not side stackable - **MTS, MSB, MSG, MSM, MSS, MSQ, MSP, MSPH: 0** = 0° modular, **9** = 90° modular, **5** = 270° modular, **4** = 35° modular - **MSMH, MSSH:**, **0** = 0° side stackable, **4** = 35° modular - **MTB, MTBH, MSBH: 0** = 0° side stackable - **4** = 55° modular - **6** = 55° side stackable - **MSB T, MSBH T: 0** = modular - **MPS, MPP: 0** = 0° modular - **MSBD: P** = fixing and positioning pegs - **0** = 0° not side stackable - **MSMH NORMO-ORTHOGONAL: R** = right, **L** = left - **MMTH, MCQ, MCQH, MCQ DOUBLE, MCQH DOUBLE: 0** = 90° side stackable, **9** = 0° side stackable - **MCM, MCMH: 0** = 0° not side stackable, **A** = 0° not side stackable - **MSMH, MSQ, MSP: D** = double pin |
| 6 | **Pitch:** **4** = 2.54 mm/.100 in, **8** = 3.50 mm/.138 in, **T** = 3.81 mm/.150 in, **1** = 5.00 mm/.197 in, **5** = 5.08 mm/.200 in, **S** = 6.35 mm/.250 in, **9** = 7.00 mm/.275 in, **3** = 7.50 mm/.295 in, **7** = 7.62 mm/.300 in, **N** = 9.52 mm/.375 in, **2** = 10.00 mm/.394 in, **6** = 10.16 mm/.400 in, **U** = 12.7 mm/.500 in, **Q** = 15 mm/.591 in, **R** = 15.24 mm/.600 in |
| 7 | **Marking:** **0** = standard , **A/Z** = customized |
| 8 | **Colors:** **0V** = Green (similar to RAL 6032) only for STH and SMD products, **0N** = Black (similar to RAL 9005), **0G** = Light Gray (similar to RAL 7035), **0F** = Dark Gray (similar to RAL 7040), **0A** = Orange (similar to RAL 2003), **0B** = Blue (similar to RAL 5012, **0E** = Blue Gray (similar to RAL 7031), **0P** = Flame Red (similar to RAL 3000), **0R** = Red (similar to RAL 3017), **0C** = Brown (similar to RAL 8019), **0W** = White (similar to RAL 9001), **0Y** = Yellow (similar to RAL 1018), **0T** = Natural, **0D** = Yellow/Green |
| 9 | **C** = closed clamp, **U** = special MCMH with one push-button for 3 poles , **T** = plastic with RTI 115÷120 °C |
| 10 | **MSG, MSQ: C** = integrated short circuit bridge, **Y** = polarization peg - **MSP, MSPH, MPM, MPL: E** = low current version - **MSM, MSQ: T** = terminal aligned with screw, **L** = long pin |
| 11 | **B** = with base, **W** = cross-slot screw, **F** = wire entry protection - **P** = pegs - **MBBD, MTBD, MCBD: P** = fixing and positioning pegs |
| 12 | **X** = product with ex approval, **E** = industrial packaging, **A** = gold plating, **1/9** = special, **B** = packaging in box for those in aligned tray |

## PLURIMA® - MULTI-LEVEL TERMINAL BLOCKS

**Part-Number**

| Standard Code | | | | | | | Custom Code | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | S | B | _ | 0 | 3 | 0 | M | 1 | - | 0 | R | _ | _ | _ | _ |
| 1 | | | 2 | 3 | | | 4 | 5 | | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

| | |
|---|---|
| 1 | **Series:** **PSB, PSM, PSQ** |
| 2 | **Soldering technology:** **H** = Through Hole Reflow |
| 3 | **N°of poles** |
| 4 | **Marking:** **0** = none, **A** = reverse, **B** = straight, **C** = various |
| 5 | **Mounting type:** **D** = two low levels, **H** = one high level, **K** = two high levels, **M** = medium level, **T** = three levels |
| 6 | **Pitch:** **1** = 5.00 mm / .197 in, **5** = 5.08 mm / .200 in, **2** = 10.00 mm / .394 in, **6** = 10.16 mm / .400 in |
| 7 | **Marking:** **0** = standard, **A/Z** = customized |
| 8 | **Colors:** **0V** = Green (similar to RAL 6032) only for STH and SMD products, **0N** = Black (similar to RAL 9005), **0G** = Light Gray (similar to RAL 7035), **0F** = Dark Gray (similar to RAL 7040), **0A** = Orange (similar to RAL 2003), **0B** = Blue (similar to RAL 5012), **0E** = Blue Gray (similar to RAL 7031), **0P** = Flame Red (similar to RAL 3000), **0R** = Red (similar to RAL 3017), **0C** = Brown (similar to RAL 8019), **0W** = White (similar to RAL 9001), **0Y** = Yellow (similar to RAL 1018), **0T** = Natural, **0D** = Yellow/Green |
| 9 | **C** = closed clamp, **T** = plastic with RTI 115÷120° C |
| 11 | **W** = cross-slot screw, **P** = VDE pegs, **1/9** = special |
| 12 | **X** = product with ex approval, **E** = industrial packaging, **A** = gold plating, **1/9** = special |

# HOW TO ORDER

## CONNECTORS - PLUG

**Part-Number**

| Standard Code | | | | | | | Custom Code | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C | I | F | _ | 1 | 3 | A | 0 | 2 | - | 0 | G | _ | _ | _ | _ |
| 1 | | | 2 | 3 | | 4 | 5 | 6 | | 7 | 8 | 9 | 10 | 11 | 12 |

1 **Series:** **CXF, CSF, CLF ,CHF ,CHF OUBLE, CTF, CKF, CFF, CBF, CIF, CVF, CCF, CCF DOUBLE, CGF, CUF**

2 **Soldering technology:** **H** = Through Hole Reflow - **CSF: C** = spring version - **CCF: S** = slim verison

3 **N°of poles**

4 **Marking:** **0** = none, **A** = reverse, **B** = straight, **C** = various - **Other:** **CHF DOUBLE, CCF DOUBLE: D** = double wiring

5 **Mounting type:** **V** = with flanges, **M** = modular, **0** = side stackable - **CXF: 9** = one-way connection from below and above, not side stackable - **CSF: S** = connection from below and above, side stackable, with snap features, **F** = connection from below and above, with flanges, **J** = connection from below and above, side stackable, **1** = one-way connection, side stackable, **0** = flexible use, modular, **U** = flexible use, side stackable - **CLF: 0** = flexible use, modular, **U** = flexible use, side stackable, **W** = connection from below and above, modular, **9** = connection from below and above, side stackable - **CKF, CVF: R** = right side stackable, **M** = right modular, **D** = right with flanges, **L** = left side stackable, **W** = left modular, **S** = left with flanges - **CFF: 0** = not side stackable, **A** = side stackable - **CBF: R** = right side stackable, **D** = right with flanges, **L** = left side stackable, **S** = left with flanges - **CUF: P** = polarized, **0** = side stackable

6 **Pitch:** **8** = 3.50 mm/.138 in, **T** = 3.81 mm/.150 in, **1** = 5.00 mm/.197 in, **5** = 5.08 mm/.200 in, **9** = 7.00 mm/.275 in, **3** = 7.50 mm/.295 in, **7** = 7.62 mm/.300 in, **2** = 10.00 mm/.394 in, **6** = 10.16 mm/.400 in, **Q** = 15 mm/.591 in, **R** = 15.24 mm .600 in

7 **Marking:** **0** = standard , **A/Z** = customized

8 **Colors:** **0V** = Green (similar to RAL 6032) only for STH and SMD products, **0N** = Black (similar to RAL 9005), **0G** = Light Gray (similar to RAL 7035), **0F** = Dark Gray (similar to RAL 7040), **0A** = Orange (similar to RAL 2003), **0B** = Blue (similar to RAL 5012), **0E** = Blue Gray (similar to RAL 7031), **0P** = Flame Red (similar to RAL 3000), **0R** = Red (similar to RAL 3017), **0C** = Brown (similar to RAL 8019), **0W** = White (similar to RAL 9001), **0Y** = Yellow (similar to RAL 1018), **0D** = Yellow/Green

9 **C** = closed clamp, **T** = plastic with RTI 115÷120 °C

10 **K** = integrated polarization, **X** = strain relief - **CHF, CVF: E** = cover for protection and easy removal from the header

11 **W** = cross-slot screw, **1/9** = special

12 **X** = product with ex approval, **E** = industrial packaging, **A** = gold plating, **1/9** = special

## CONNECTORS - HEADER

**Part-Number**

| Standard Code | | | | | | | Custom Code | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C | I | M | _ | 0 | 4 | 9 | P | 7 | - | 0 | N | _ | _ | _ | _ |
| 1 | | | 2 | 3 | | 4 | 5 | 6 | | 7 | 8 | 9 | 10 | 11 | 12 |

1 **Series:** **CSM, CSMH, CSMD, CLMH, CTM, CTMH, CTM DOUBLE, CTMH DOUBLE, CIM, CIMH, CPM HIGH, CPM, CPMH, CRM, CIMH NORMO-ORTHOGONAL, CGM**

2 **Soldering technology:** **H** = Through Hole Reflow, **D** = Surface mounted

3 **N°of poles**

4 **Marking for CGM:** **0** = none , **A** = reverse, **B** = straight, **C** = various - **Other:** **0** = 0°, **9** = 90°, **4** = 45°, **5** = 270° - **CIM: R** = 90° uplifted - **CIMH NORMO-ORTHOGONAL: N** = normo-orthogonal - **CLMH: 0** = 1.3 mm pin diameter, **S** = 1 mm pin diameter - **CTM/CTMH DOUBLE: P** = double level

5 **Mounting type:** **V** = with flanges, **M** = modular, **P** = polarized, **A** = side stackable, **E** = with extractor, **F** = with flanges and fake pins, **S** = with PCB screw anchorage - **CIMH NORMO-ORTHOGONAL: R** = right, **L** = left - **CSM, CSMH: S** = side stackable - **CLMH: L** = large base

6 **Pitch:** **8** = 3.50 mm/.138 in, **T** = 3.81 mm/.150 in, **1** = 5.00 mm/.197 in, **5** = 5.08 mm/.200 in, **9** = 7.00 mm/.275 in, **3** = 7.50 mm/.295 in, **7** = 7.62 mm/.300 in, **2** = 10.00 mm/.394 in, **6** = 10.16 mm/.400 in, **Q** = 15 mm/.591 in, **R** = 15.24 mm/.600 in

7 **Marking:** **0** = standard , **A/Z** = customized

8 **Colors:** **0V** = Green (similar to RAL 6032) only for STH and SMD products, **0N** = Black (similar to RAL 9005), **0G** = Light Gray (similar to RAL 7035), **0F** = Dark Gray (similar to RAL 7040), **0A** = Orange (similar to RAL 2003), **0B** = Blue (similar to RAL 5012), **0E** = Blue Gray (similar to RAL 7031), **0P** = Flame Red (similar to RAL 3000), **0R** = Red (similar to RAL 3017), **0C** = Brown (similar to RAL 8019), **0W** = White (similar to RAL 9001), **0Y** = Yellow (similar to RAL 1018), **0D** = Yellow/Green

9 **T** = plastic with RTI 115÷120 C° - **CGM: C** = closed clamp - **CPM HIGH: H** = high

10 **K** = integrated polarization, **Y** = polarization peg, **G** = ground pin - **CGM: X** = strain relief, **F** = wire entry protection

11 **1/9** = special - **CGM, W** = cross-slot screw

12 **X** = product with ex approval, **E** = industrial packaging, **A** = gold plating, **1/9** = special

# HOW TO ORDER

## EXTRUDED PCB SUPPORTS STC072 / STC000

### Part-Number

Standard Code — Custom Code

**STC072L250 - _ _ _**

| Series: | Code-parts cut profile size L: | For PCB: |
|---|---|---|
| STC072 | **S016** = STD Size Cut Profile L 16.50 mm / .650 in | 20.00 mm / .787 in |
| | **S028** = STD Size Cut Profile L 27.75 mm / 1.093 in | 31.25 mm / 1.230 in |
| | **S039** = STD Size Cut Profile L 39.00 mm / 1.535 in | 2.50 mm / 1.673 in |
| | **S050** = STD Size Cut Profile L 50.25 mm / 1.978 in | 53.75 mm / 2.116 in |
| | **S061** = STD Size Cut Profile L 61.50 mm / 2.421 in | 65.00 mm / 2.559 in |
| | **S073** = STD Size Cut Profile L 72.75 mm / 2.864 in | 76.25 mm / 3.002 in |
| | **S084** = STD Size Cut Profile L 84.00 mm / 3.307 in | 87.50 mm / 3.445 in |
| | **S095** = STD Size Cut Profile L 95.25 mm / 3.750 in | 98.75 mm / 3.888 in |
| | **S106** = STD Size Cut Profile L 106.50 mm / 4.193 in | 110.00 mm / 4.331 in |
| | **S118** = STD Size Cut Profile L 117.75 mm / 4.636 in | 121.25 mm / 4.774 in |
| | **S129** = STD Size Cut Profile L 129.00 mm / 5.079 in | 132.50 mm / 5.217 in |
| | **S140** = STD Size Cut Profile L 140.25 mm / 5.522 in | 143.75 mm / 5.659 in |
| | **S151** = STD Size Cut Profile L 151.50 mm / 5.965 in | 155.00 mm / 6.102 in |
| | **S163** = STD Size Cut Profile L 162.75 mm / 6.407 in | 166.25 mm / 6.545 in |
| | **S174** = STD Size Cut Profile L 174.00 mm / 6.850 in | 177.50 mm / 6.988 in |
| | **A026** = STD Size Adapter for 68 mm / 2.677 in PCB | |
| STC072 | **TSX0** = Left Lateral Element with Rail Hook | |
| | **TDX0** = Right Lateral Element with Rail Hook | |
| | **T000** = Head Without Rail Hook | |
| | **2000** = Profile for PCB L 2 m / 78.74 in | |
| | **P011** = DIN Rail Hook | |
| | **L___** = Custom Size Cut Profile (in mm) | |
| STC000 | **V015** = Screw for Head Fastening (L=15mm) | |
| | **V025** = Screw for Head Fastening (L=25mm) | |
| | **F000** = Bracket for Wall Mounting | |

### Code-parts

1) **STC072TSX0**
2) **STC000F000**
3) **STC072T000**
4) **STC072P011**
5) **STC072S_ _ _**
   **STC0722000**
   **STC072L_ _ _**
6) **STC072T000**
7) **STC072TDX0**
8) **STC000V015**

## EXTRUDED PCB SUPPORTS STC107 / STC000

### Part-Number

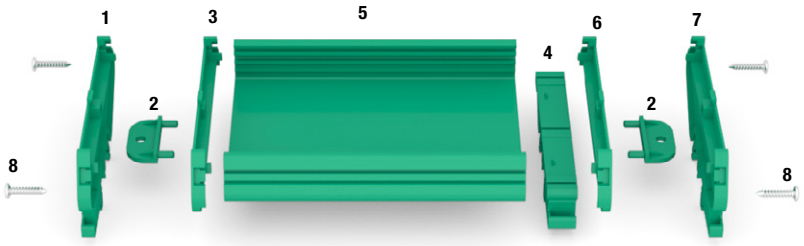
Standard Code — Custom Code

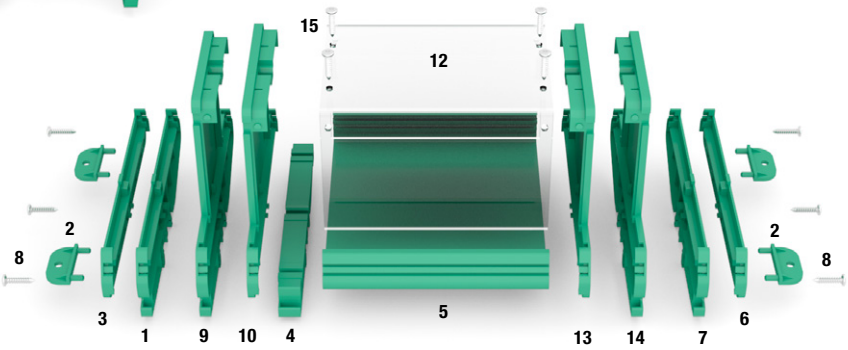
**STC107L250 - _ _ _**

| Series: | Code-parts cut profile size L: | For PCB: |
|---|---|---|
| STC107 | **S035** = STD Size Cut Profile L 35.00 mm / 1.378 in | 38.50 mm / 1.516 in |
| | **S051** = STD Size Cut Profile L 51.50 mm / 2.028 in | 55.00 mm / 2.165 in |
| | **S070** = STD Size Cut Profile L 70.00 mm / 2.756 in | 73.50 mm / 2.894 in |
| | **S086** = STD Size Cut Profile L 86.50 mm / 3.406 in | 90.00 mm / 3.543 in |
| | **S105** = STD Size Cut Profile L 105.00 mm / 4.134 in | 108.50 mm / 4.272 in |
| | **S121** = STD Size Cut Profile L 121.50 mm / 4.783 in | 108.50 mm / 4.272 in |
| | **S140** = STD Size Cut Profile L 140.00 mm / 5.512 in | 125.00 mm / 4.921 in |
| | **S156** = STD Size Cut Profile L 156.50 mm / 6.161 in | 143.50 mm / 5.650 in |
| | **S175** = STD Size Cut Profile L 175.00 mm / 6.890 in | 160.00 mm / 6.299 in |
| | **S191** = STD Size Cut Profile L 191.50 mm / 7.538 in | 178.50 mm / 7.026 in |
| | **S210** = STD Size Cut Profile L 210.00 mm / 8.268 in | 195.00 mm / 7.677 in |
| | **S226** = STD Size Cut Profile L 226.50 mm / 8.898 in | 213.50 mm / 8.406 in |
| | **S245** = STD Size Cut Profile L 245.00 mm / 9.646 in | 230.00 mm / 9.055 in |
| | **S261** = STD Size Cut Profile L 261.50 mm / 10.295 in | 248.50 mm / 9.783 in |
| | **S280** = STD Size Cut Profile L 280.00 mm / 11.024 in | 265.00 mm / 10.433 in |
| | **A160** = STD Size Adapter for 100 mm / 3.937 in PCB | 283.50 mm / 11.161 in |
| | **A___** = Custom Size Cut Adapter for 100 mm / 3.937 in PCB | |
| | **TS60** = Left High Lateral Element with Rail Hook | |
| | **TS73** = Left High Lateral Element with Rail Hook | |
| | **TD60** = Right High Lateral Element with Rail Hook | |
| | **TD73** = Right High Lateral Element with Rail Hook | |
| | **T060** = High Lateral Element Without Rail Hook | |
| | **T073** = High Lateral Element Without Rail Hook | |
| | **C___** = Custom Size Protection Cover 60 (in mm) | |
| | **D___** = Custom Size Protection Cover 73 (in mm) | |
| STC107 | **TSX0** = Left Lateral Element with Rail Hook | |
| | **TDX0** = Right Lateral Element with Rail Hook | |
| | **T000** = Head Without Rail Hook | |
| | **2000** = Profile for PCB L 2 m / 78.74 in | |
| | **P011** = DIN Rail Hook | |
| | **L___** = Custom Size Cut Profile (in mm) | |
| STC000 | **V015** = Screw for Head Fastening (L=15mm) | |
| | **V025** = Screw for Head Fastening (L=25mm) | |
| | **F000** = Bracket for Wall Mounting | |

### Code-parts

1) **STC107TSX0**
2) **STC000F000**
3) **STC107T000**
4) **STC107P011**
5) **STC107S_ _ _**
   **STC1072000**
   **STC107L_ _ _**
6) **STC107T000**
7) **STC107TDX0**
8) **STC000V015**
9) **STC107TS73**
10) **STC107T073**
12) **STC107C_ _ _**
    **STC107D_ _ _**
13) **STC107T060**
14) **STC107TD60**
15) **STC000VC15**



# HOW TO ORDER

## MODULAR PCB SUPPORTS SMC072 / SMC107

### Part-Number

Standard Code | Custom Code

**SMC072L250 - ___**

| Series: | Code parts: |
|---|---|
| **SMC072** | **T011** = Lateral Element<br>**T012** = Lateral Element<br>**T013** = Complete Module<br>**S011** = Base Element<br>**S022** = Base Element<br>**S045** = Base Element<br>**P020** = Hook Element for DIN Rail |
| **SMC107** | **T000** = Lateral Element<br>**P035** = Base Element with Hook<br>**S016** = Base Element<br>**S035** = Base Element<br>**S00T** = Stiffening Brass Element |

## DIN RAIL BOXES

### Part-Number

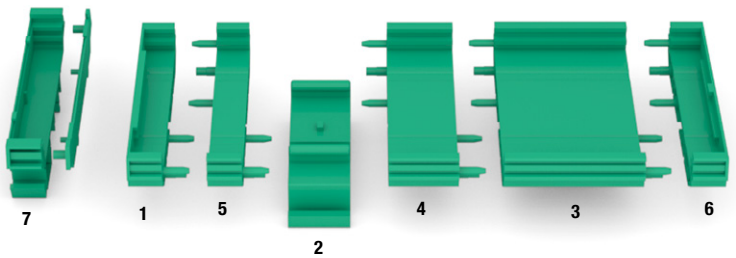
Standard Code | Custom Code

**SRC1750000-V___**

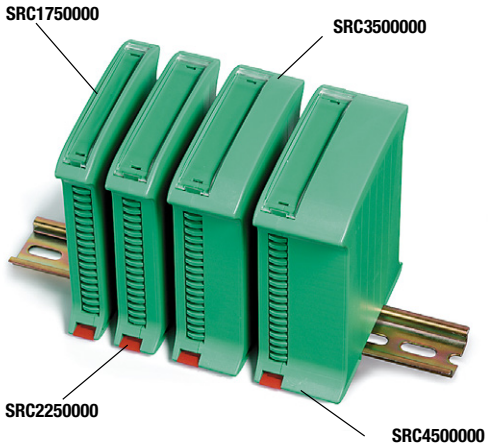
| Series: | Code parts: | Colors: |
|---|---|---|
| **SRC** | **1750000** = Complete kit H = 17.5 mm<br>**2250000** = Complete kit H = 22.5 mm<br>**3500000** = Complete kit H = 35.0 mm<br>**4500000** = Complete kit H = 45.0 mm | **V** = Green (similar to RAL 6001)<br>**G** = Gray (similar to RAL 7035)<br>**N** = Black (similar to RAL 7016)<br>**T** = Trasparent Red Color; only for **SRC000012P** and **SRC000017P** |
| | **Accessories:**<br>**000000C** = Breakable side spit cover<br>**000012P** = Frontal panel 12 mm<br>**000017P** = Frontal panel 17 mm<br>**000000A** = Internal Adapter<br>**000000D** = Spacer | |

### SMC 072 code-parts

1) SMC072T011
2) SMC072P020
3) SMC072S045
4) SMC072S022
5) SMC072S011
6) SMC072T011
7) SMC072T013

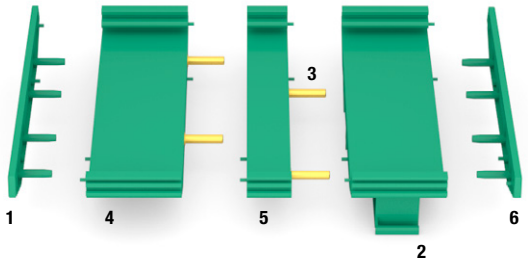



### DIN rail boxes



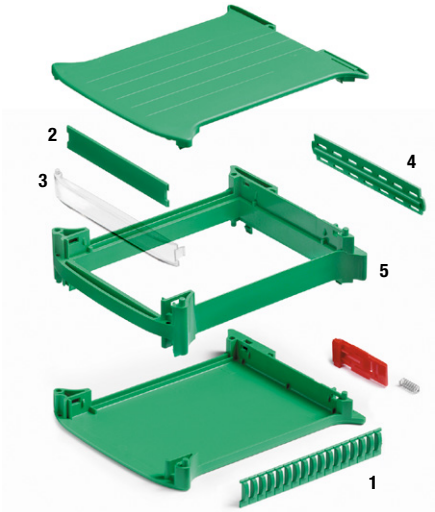

### SMC 107 code-parts

1) SMC107T000
2) SMC107P035
3) SMC107S00T
4) SMC107S035
5) SMC107S016
6) SMC107T000




### Accessories

1) SRC000000C
2) SRC000012P
3) SRC000017P
4) SRC000000A
5) SRC000000D



# HOW TO ORDER

## ADHESIVE LABELS

The ESA series adhesive labels are available for all pitches, with progressive numbering (standard labels) or with sequences of characters with different sizes, orientation and positions (custom labels). They are made of white solvent free and stain resistant polyester and are supplied with the characters printed in black with maximum readability. The labels are UL and CSA approved and their application is the responsibility of the user.

### Part-Number

Standard Code

**E S A 0 0 0 0 0 0 0 0**

**Series:**
**ESA**

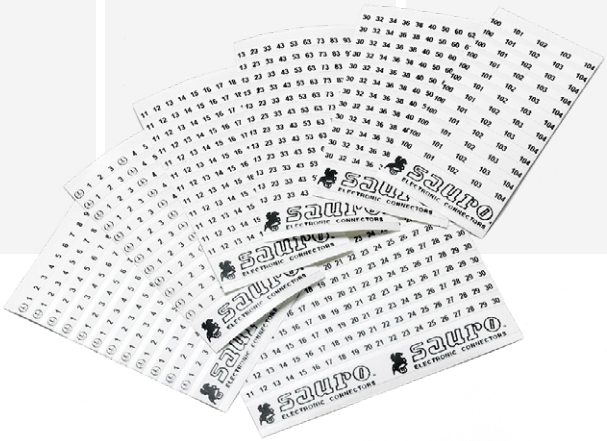
**Pitch:**
**4** = 2.54 mm / .100 in
**8** = 3.50 mm / .138 in
**T** = 3.81 mm / .150 in
**1** = 5.00 mm / .197 in
**5** = 5.08 mm / .200 in
**S** = 6.35 mm / .250 in
**9** = 7.00 mm / .275 in
**3** = 7.50 mm / .295 in
**7** = 7.62 mm / .300 in
**N** = 9.52 mm / .375 in
**2** = 10.00 mm / .394 in
**6** = 10.16 mm / .400 in
**0** = Custom configuration

**Label Height**
**30** = 2.8 mm / .110 in
**40** = 3.8 mm / .150 in
**50** = 5 mm / .197 in

**Marking**
**0** = Standard
**-** = Custom configuration*

**Number**
**- -** = First number in sequence (STANDARD)
**- -** = First number or letter/s (CUSTOM DESIGN)

**Number**
**- -** = Last number in sequence (STANDARD)
**- -** = Last number or letter/s (CUSTOM DESIGN)

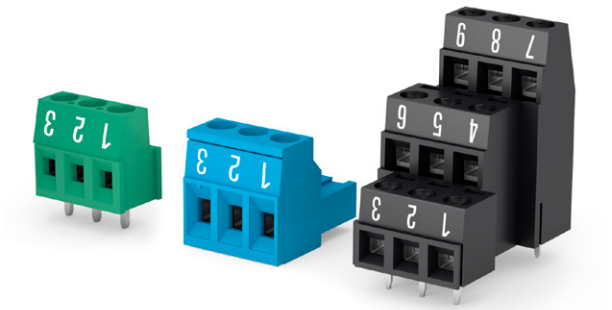


# PAD PRINTING

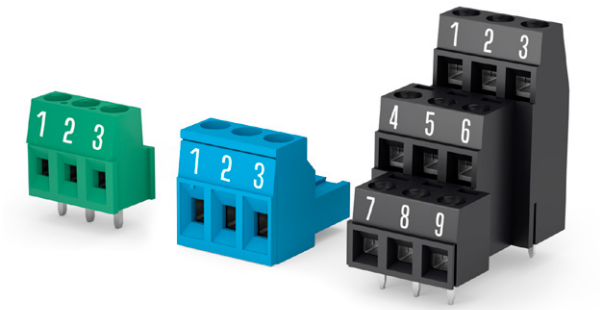
The possibility of marking on the connecting devices represents an ideal and functional solution for the identification of each single pole.
**SAURO performs pad printing by using a bi-component ink,** obtaining the highest possible readability, indelible and scratch resistant characters.

Pad printing can be:
**- Standard** (numbers in progression): **A** if reverse or **B** if straight, as illustrated below;
**- Customed:** sequences of characters, numbers or symbols with different dimensions, colors, orientation and positions.

### Reverse pad printing (A)



### Straight pad printing (B)



# PACKAGING

## Standard Packaging

Each SAURO product is available in its Standard Packaging which contains a fixed number of pieces.

**The product must be ordered in a quantity which is equal to the respective Standard Packaging or multiples of it.**

## Industrial Packaging

Industrial packaging is for large quantities of the same product (code) when it is not convenient to divide the pieces into many boxes. The product code is obtained by using the standard code and adding -00000E.

## 1/10 of Standard Packaging

For samples or for small batches, SAURO products can be ordered in 1/10 of the Standard Packaging, this comes with an extra charge.

Industrial packaging

Standard packaging

## Kit Packaging

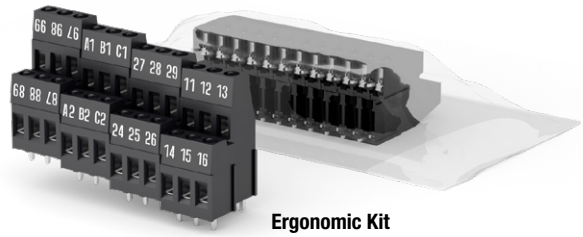
All SAURO products are available in the following kits, which simplify their handling (e.g. reduction of part numbers), warehouse and assembly management, reducing the possibility of making mistakes. Usually the part number of products in kit starts with the letter K.

**Client PCB Kit:** different products packed together according to assembly needs. All components are usually packed in a plastic bag.

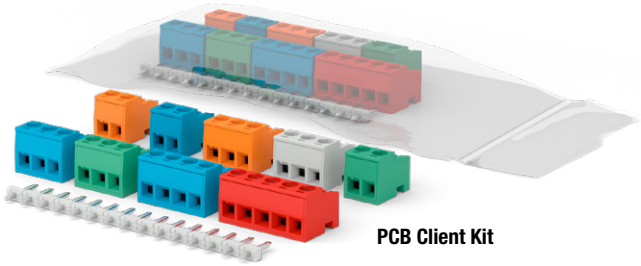
**Assembly Kit:** as above, but with every single item packed separately in order to optimize the quantity and the assembly process on the PCB. Each item is packed in a large plastic bag and this is then inserted into a cardboard box completing the kit.

**Ergonomic Kit:** with different modular and eventually marked items, so that the consecutive separation optimizes the assembly process on the PCB.

**Tape-on-Reel Kit, Tray Kit, Tube Kit:** for a semi-automated or fully automated product feed directly on the assembly line.



Ergonomic Kit



PCB Client Kit

Tray Kit

Tube Kit

Tape-on-Reel kit

## KANBAN

A further distribution service according to the use (just in time) of the above mentioned Kits or of the standard and industrial packages.

## Other solutions upon request

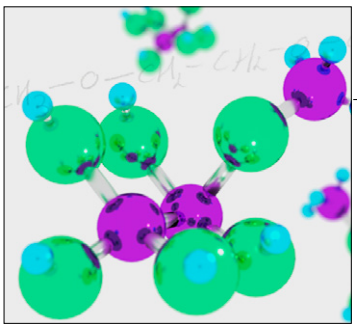
## Sample Box

A Sample Box is available upon request and includes a selection of terminal blocks and connectors in different configurations in order to learn about SAURO products, or for prototype applications.
The part number for ordering it is:
WV0018-CS

Sample Box

## RoHS (Restriction of Hazardous Substances)

**The European Directive 2011/65/EU, (RoHS2)**, as amended by the Delegated Directive 2015/863/EU (RoHS3), imposes restrictions on the use of lead, mercury, cadmium, hexavalent chromium and some flame retardants (PBB, PBDE and Deca-BDE) in the construction of electrical and electronic equipment.
The RoHS Directive was adopted by the European Community in February 2003 and became fully effective from July 1st 2006.
Since its foundation in 1984 SAURO has never used materials or substances in its products which are declared or suspected to be carcinogenic, toxic or dangerous for human health and / or for the environment.
**Moreover, SAURO performs XRF (X-Ray Fluorescence) spectrophotometric analysis specific to verify the absence of the above substances in the raw materials used in its manufactured products.**
Compliance with the Directive in question is highlighted in the packaging using the following symbols:

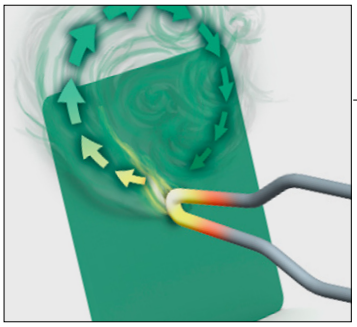


## REACH (Registration, Evaluation and Authorization of Chemicals)

**The REACH Regulation (n.1907 / 2006)** concerning the registration, evaluation and authorization of chemical substances effectively entered into force on June 1st 2007.
With reference to the REACH Regulation, SAURO does not manufacture or import chemical substances; however SAURO, as a user of raw materials, works with its suppliers to obtain a correct application of the REACH regulation.
Regarding chemicals for which the alert level ('**Substances of Very High Concern**' SVHC and Annexes XVII and XIV) remains high, SAURO requires from all of its suppliers that these substances are recordered in full compliance with the regulation.

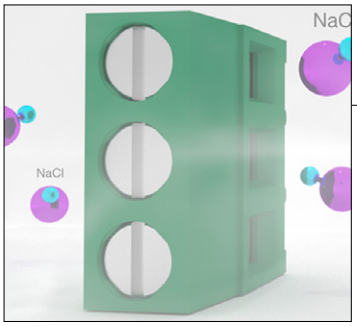
## International Agency Approvals

The choice and purposeful design of SAURO products are the result of a long experience matured in the field of electrical connections and a total respect of the international reference standards such as:
**IEC EN 60947-7-4, IEC EN 60998, IEC EN 61984, IEC EN 60999, DIN EN ISO 6988, VDE 0627, IEC EN 60664, VDE 0110-1, UL 1059, UL 486A, UL 94, CSA 22.2.**
SAURO products are **CE** marked and are **UL, VDE, IMQ, cULus and CSA certified, with ownership of the relevant specific files.** Technical data for which the various **certifications** are issued, can be found for each product at the SAURO website www.sauro.net. Products plastic housings feature **CE and UL marks** due to their small size.
**Additional and comprehensive details on certifications and agency approvals are featured on the product packaging label and consequently SAURO products must reach the final user in original packaging with the label intact.**



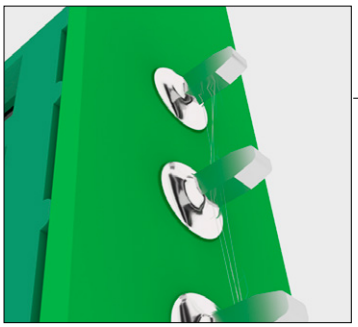
## Compliance with EN 60335-1

The **EN60335-1** standard that regulates the safety of electrical and electronic equipment for domestic and similar uses, requires the products to pass certain self-extinguishing tests **with more restrictive limits than those required by the specific rules for connection devices,** such as terminal blocks and connectors for PCB.
The insulating material used in all SAURO terminal blocks and connectors **is GWIT classified (Glow Wire Ignition Temperature) 775 ° C (1427 °F).**
The entire range of SAURO products is **therefore suitable for use in domestic appliances subject to European Standard EN 60335-1, such as appliances, thermostats, automation systems and similar electrical devices.**
**The declaration of conformity to EN 60335-1** can be obtained on request.



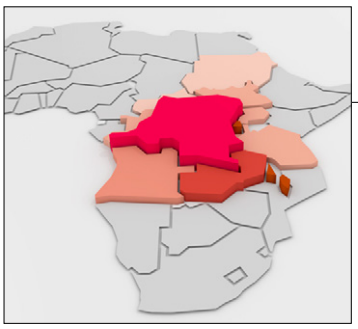

## No corrosion

SAURO products are suitable for use in harsh environments and harsh operating conditions (marine environments, chemical industries, etc.), since its metallic components are made exclusively in special **copper alloys**.
The salt spray test, according to **UNI EN ISO 9227-06**, highlights the reactions of materials when they are exposed for **168 hours** (7 days) to the corrosive action of salt (NaCl), present in a certain concentration in the atmosphere.
SAURO products, after being subjected to this test **remain absolutely unaltered and show no sign of corrosion**, while often in other comparable products with the same exposure, the presence of red corrosion (rust) or white corrosion (chloride of zinc) occurs.
In addition, all products with spring clamping technology and, in all cases, with **stainless steel** metal components can be used in environments where ammonia is present ($NH_3$) such as agricultural and live stock applications or chemical industries.



## No Whiskers phenomenon

In lead-free tin coatings, the Whiskers phenomenon should not be underestimated: microcrystals protruding from the pure tin layer that can create, over time, tin whiskers, and cause very dangerous short circuits.
SAURO has obtained a solution to ensure that this phenomenon does not occur by adopting different galvanic treatment technologies.



## Conflict Minerals Free

SAURO is committed to providing its customers with the highest quality products supporting the fight against violence, human rights violations and environmental degradation. According to the statements sent by its suppliers, all raw materials used in the production of terminal blocks and connectors do not contain minerals extracted in countries subject to internal conflicts in the eastern provinces of the Democratic Republic of Congo (DRC) and in the neighbouring countries, as required by the provisions on the “Conflict Minerals” under the Dodd-Frank Wall-Street Reform and Consumer Protection Act of 2010.

## Screw Tightening Torque

Data concerning the tightening torque according to CEI EN 60999-1 and concerning the recommended torque for SAURO rising clamps:

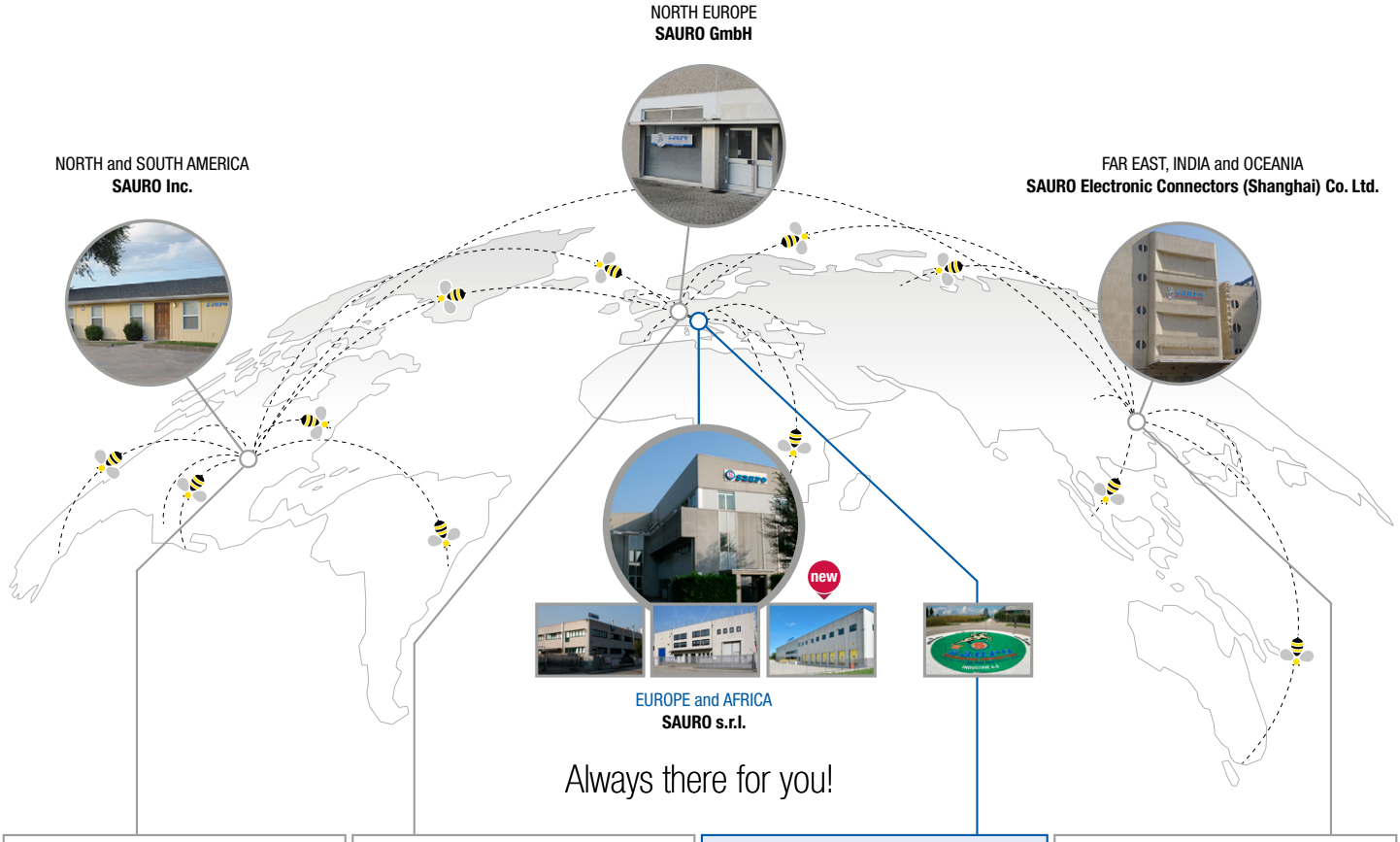
| THREAD | SLOTTED SCREW | |
|---|---|---|
| | Nominal tightening torque (Nm) | Recommended tightening torque (Nm) |
| M 1.6 | 0.1 | 0.1 - 0.15 |
| M 2 | 0.2 | 0.2 - 0.25 |
| M 2.5 | 0.4 | 0.4 - 0.5 |
| M 3 | 0.5 | 0.5 - 0.6 |
| M 3.5 | 0.8 | 0.8 - 1.0 |
| M 4 | 1.2 | 1.2 - 1.5 |

## Sealing Label

The production **BATCH** number is very important for the traceability of the product.

SAURO ELECTRONIC CONNECTORS by the law

# Connect with confidence, we take care of the rest




Always there for you!

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Each one of your enquiries will be shared among all our Divisions.
Every single request will always be answered.

M.I.I.S. DIVISION

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