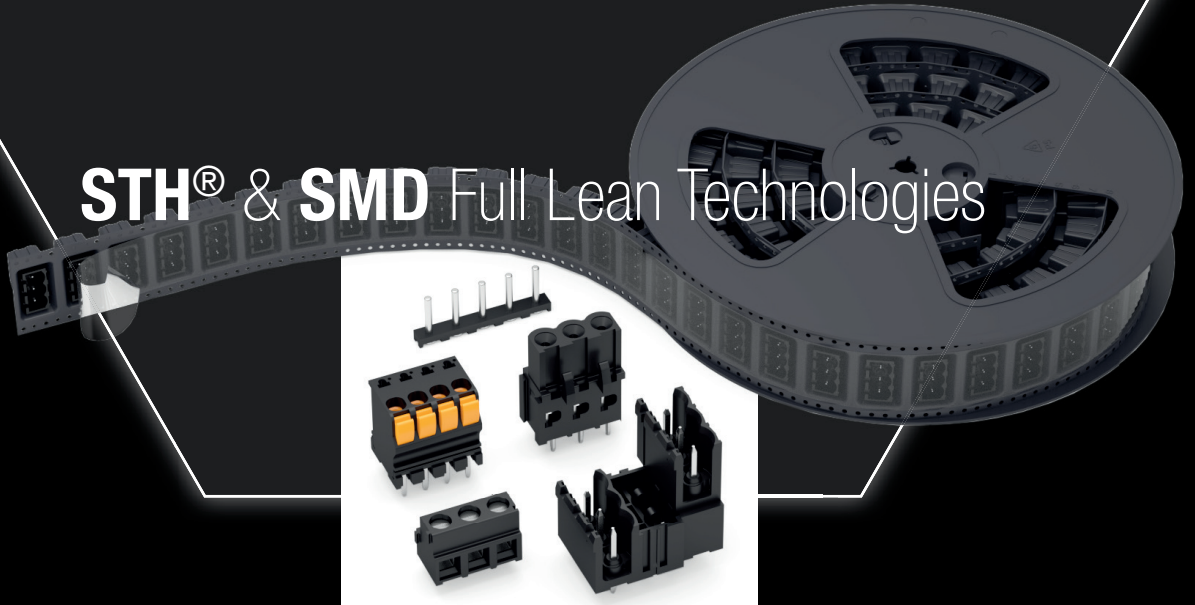




SAURO[®]
ELECTRONIC CONNECTORS
— by the law —

STH[®] & SMD Full Lean Technologies

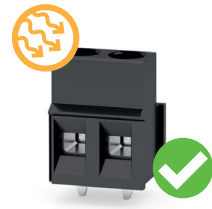


STH[®] Full Lean Technology

STH[®] Full Lean Technology for LARGE SCALE production: **factory's work space and time are reduced by 70%.**

Sauro looks at the future and after years of research and development, **we revolutionize PCB assembly.** Introduces a new mixed technology between SMT (Surface Mount Technology) and THT (Through Hole Technology): our **STH[®]** technology (SMD Through Hole, also known as PiP-Pin in Paste- and THR-Through Hole Reflow- Technology), which pushes the use of extreme automation, resulting in **process cost saving** and reducing the percentage of errors.

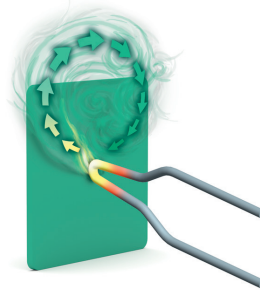
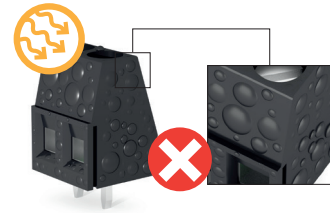
Sauro **STH[®]** insulating material:



✓ Stable above **275°C**, can be therefore used in all reflow lead-free soldering



✓ **MSL 1** graded (Moisture Sensitivity Level 1) according to IPC/JEDEC J-STD-020, therefore immune to damages caused by humidity



✓ **EN 60335, REACH** and **RoHS 2** compliant for home appliances

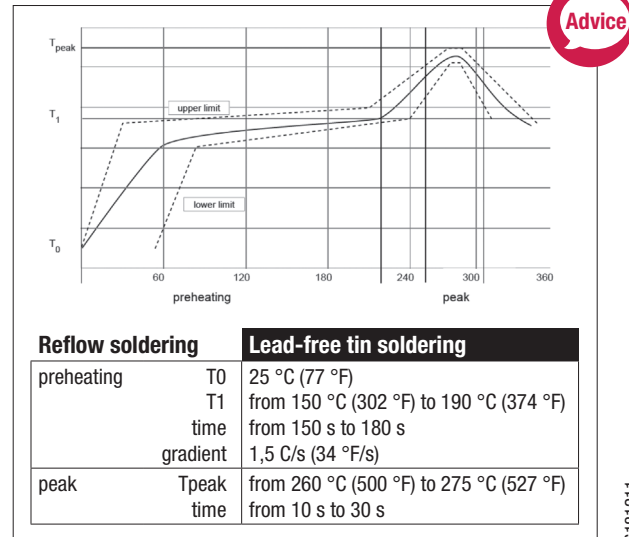
- strengthened with glass fibers
- stable above 275 °C, can be used in all lead-free reflow process
- with a thermal expansion ratio similar to the PCB's to avoid mechanical strain among the terminals and the PCB itself



STH[®]: no strain between the pins and the PCB



Example of strain between the pins and the PCB



Advice

S181211

STH[®] Full Lean Technology

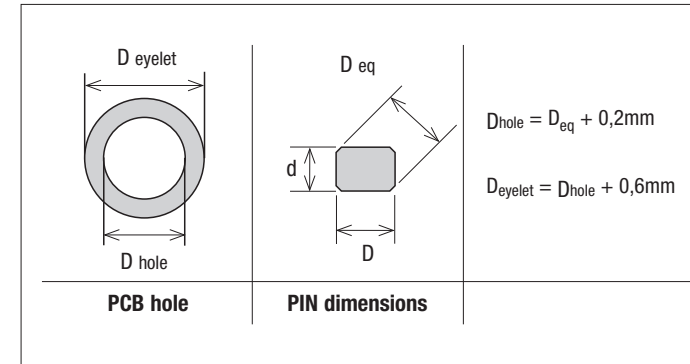
HOW TO USE

Advice

STH[®] products' assembly:

These data can be taken as reference in order to obtain an optimal soldering of STH[®] products, using the reflow oven.

PCB holes and eyelets sizing



Soldering paste quantity

$$V_f = \left[\frac{\pi \cdot d_f^2}{4} \cdot S \right]$$

$$V_n = V_f - V_p$$

$$\text{Paste volume} = V_n \cdot K$$

Where:

V_f = Hole volume

V_n = Net volume

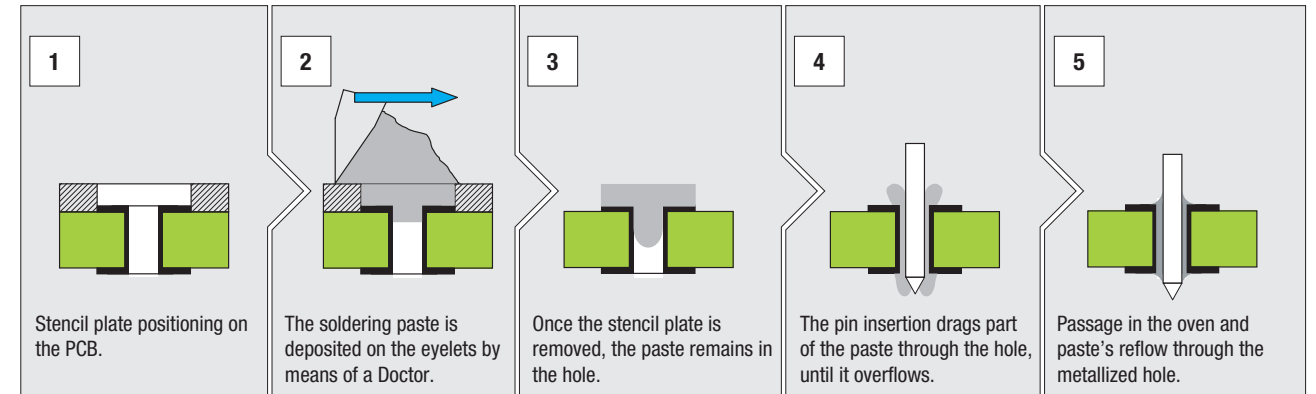
V_p = Soldering pin volume

S = PCB thickness

d_f = Hole on the PCB

K = Evaporation factor (equal to 2 if the foreseen evaporation is 50% of the placed paste)

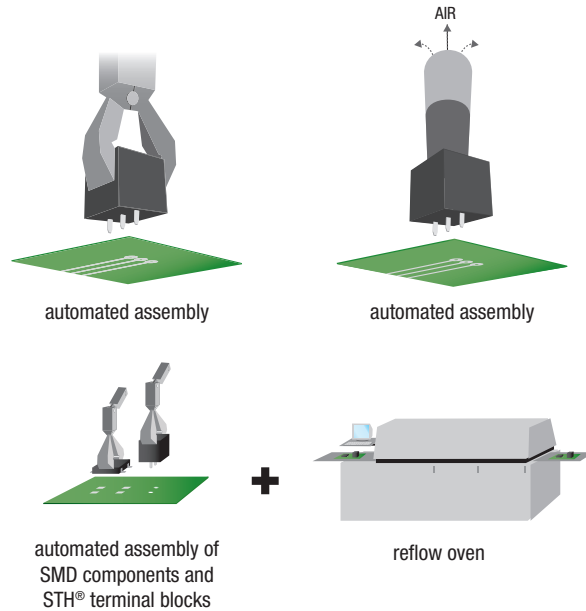
Assembly process and soldering



STH[®] Full Lean Technology

Sauro STH[®] products are suitable for PCB automated mounting, together with other SMD components, via pick and place systems (pliers or vacuum), thanks to:

- ✓ High mechanical precision, with subsequent strict tolerances
- ✓ Special precautions during the design stage of the insulating housing depending on the type of mounting used
- ✓ Packaging in tape on reel, tube or tray



STH[®] Full Lean Technology allows:

- NO** manual positioning of terminal blocks and connectors on the PCB holes
- NO** manual or wave soldering of terminal blocks and connectors
- NO** intermediate storage between the reflow soldering process, manual mounting and the wave soldering process

We therefore have a **time and space productivity cost reduction of approximately 70%**



approx. **70%**
Reduction

STH[®] Products

MSDH	
Pitch mm	2.54 5.08
Rated voltage	150 V 300 V
Rated current	12 A

0.05±1 mm²



MTBH	
Pitch mm	3.5 3.81 7 7.62
Rated voltage	300 V 300 V 750 V 750 V
Rated current	17.5 A

0.05±1.5 mm²



MSBH	
Pitch mm	5 5.08 10 10.16
Rated voltage	300 V 300 V 750 V 750 V
Rated current	17.5 A

0.05±1.5 mm²



MSGH	
Pitch mm	5 5.08 7.5 7.62 10 10.16
Rated voltage	300 V 300 V 750 V 750 V 750 V 750 V
Rated current	24 A

0.05±2.5 mm²



MSMH	
Pitch mm	5 7.5 7.62 10
Rated voltage	300 V 750 V 750 V 750 V
Rated current	24 A

0.05±2.5 mm²



MSSH	
Pitch mm	5 7.5 7.62 10 10.16
Rated voltage	300 V 750 V 750 V 750 V 750 V
Rated current	24 A

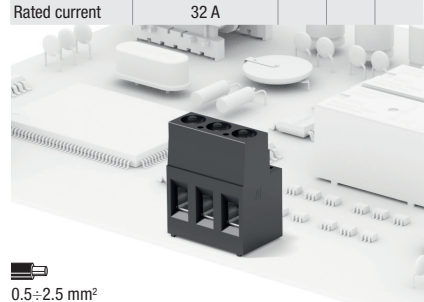
0.05±2.5 mm²




For more details about different versions and technical features of our series please use the QR code and download the complete datasheet or go to www.sauro.net

STH® Products

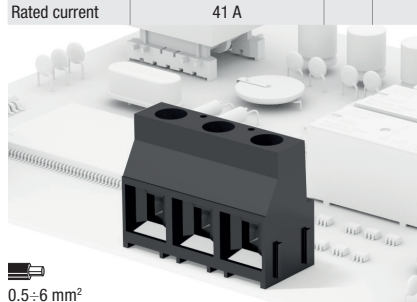
MSQH				
Pitch mm	5.08	7.5	7.62	
Rated voltage	300 V	750 V	750 V	
Rated current	32 A			



 0.5÷2.5 mm²



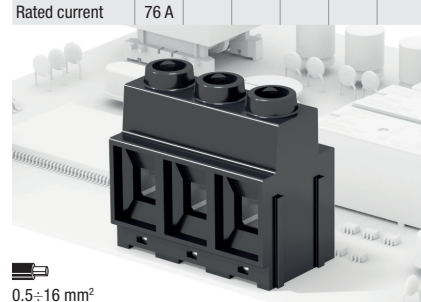
MSPH				
Pitch mm	6.35	7.62	9.52	12.7
Rated voltage	450 V	450 V	750 V	600 V
Rated current	41 A			



 0.5÷6 mm²



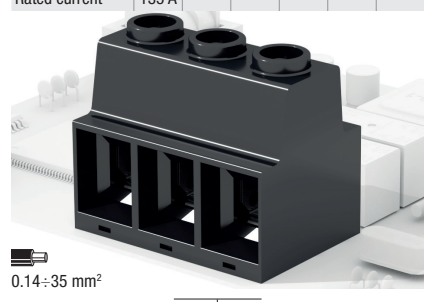
MPSH				
Pitch mm	10.16			
Rated voltage	1000 V			
Rated current	76 A			




 0.5÷16 mm²



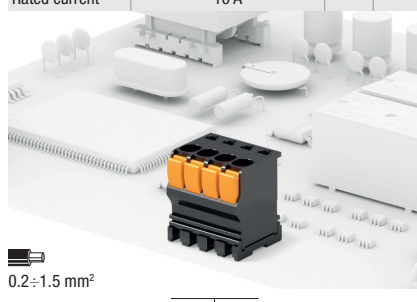
MPPH				
Pitch mm	15			
Rated voltage	1000 V			
Rated current	135 A			




 0.14÷35 mm²



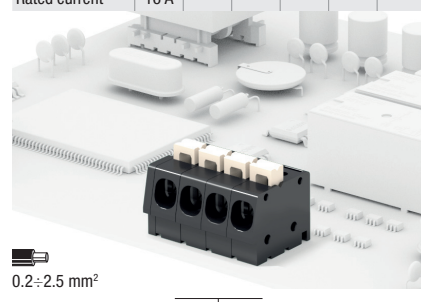
MMTH				
Pitch mm	3.5	3.81	7	7.62
Rated voltage	300 V	300 V	750 V	750 V
Rated current	10 A			



 0.2÷1.5 mm²



MCMH				
Pitch mm	5.08			
Rated voltage	300 V			
Rated current	16 A			

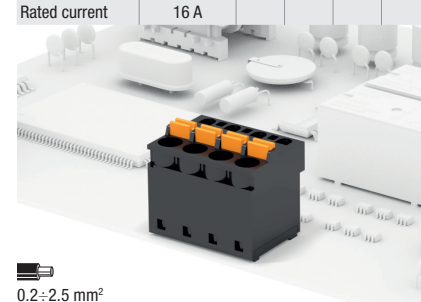



 0.2÷2.5 mm²



STH® Products

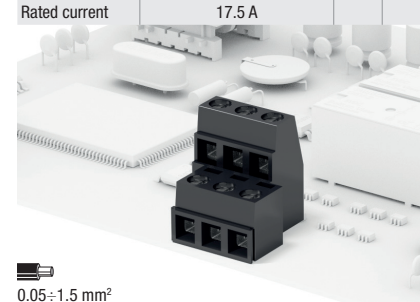
MCQH				
Pitch mm	5	10		
Rated voltage	300 V	750 V		
Rated current	16 A			




 0.2÷2.5 mm²



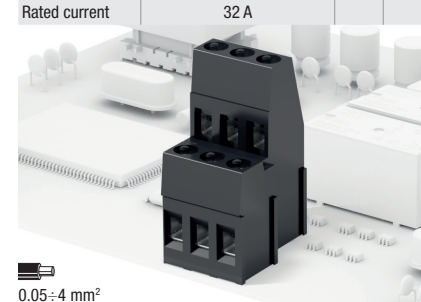
PSBH				
Pitch mm	5	5.08	10	10.16
Rated voltage	300 V	300 V	750 V	750 V
Rated current	17.5 A			




 0.05÷1.5 mm²



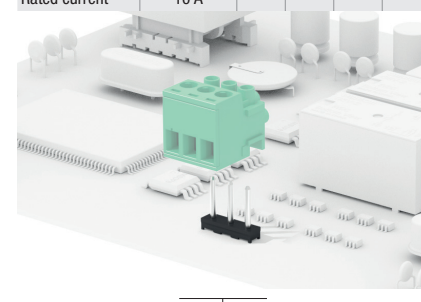
PSQH				
Pitch mm	5	5.08	10	10.16
Rated voltage	300 V	300 V	750 V	750 V
Rated current	32 A			




 0.05÷4 mm²



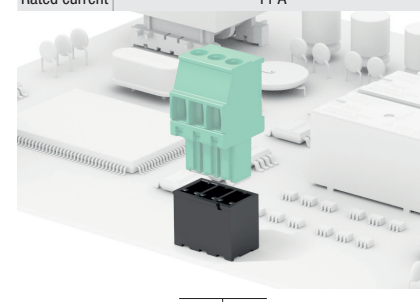
CLMH				
Pitch mm	3.5	7		
Rated voltage	150 V	300 V		
Rated current	10 A			



 0.2÷2.5 mm²



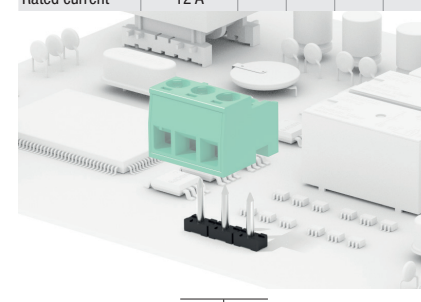
CTMH				
Pitch mm	3.5	3.81	5	5.08
Rated voltage	300	300	300	300
Rated current	450	450	600	600



 11 A



CSMH				
Pitch mm	5	10		
Rated voltage	300 V	1000 V		
Rated current	12 A			

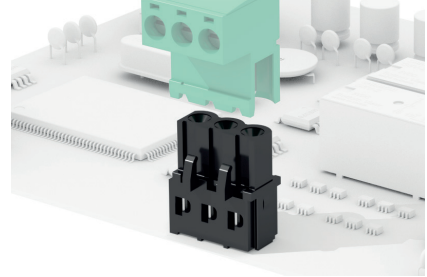


 12 A

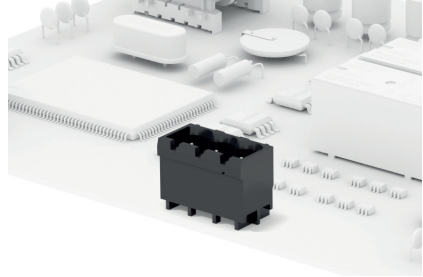


STH® Products

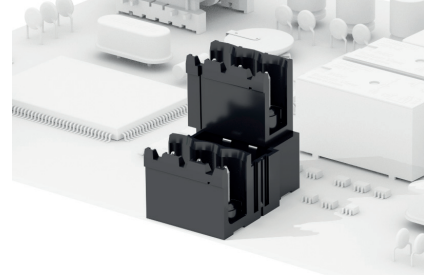
CGFH	5	5.08	7.5	7.62	10	10.16
Pitch mm	5	5.08	7.5	7.62	10	10.16
Rated voltage	300 V	300 V	600 V	600 V	1000 V	1000 V
Rated current	16 A					



CIMH	5	5.08	7.5	7.62	10	10.16
Pitch mm	5	5.08	7.5	7.62	10	10.16
Rated voltage	300 V	300 V	500 V	500 V	750 V	750 V
Rated current	16 A					

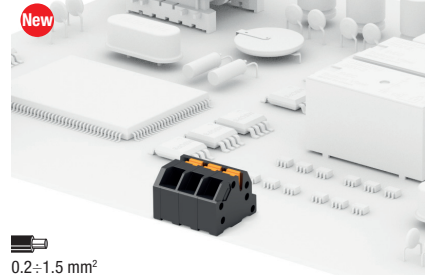


CPMH	5	5.08	10	10.16
Pitch mm	5	5.08	10	10.16
Rated voltage	300 V	300 V	1000 V	1000 V
Rated current	16 A			



Small & Smart

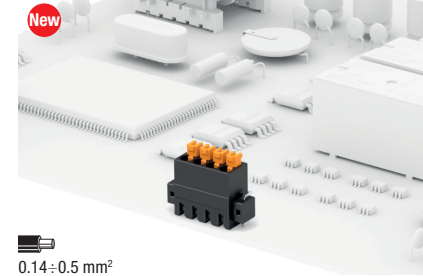
MCBH	3.5	5
Pitch mm	3.5	5
Rated voltage	300 V	300 V
Rated current	16 A	



0.2÷1.5 mm²



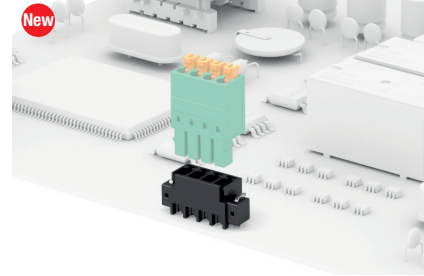
MCDH	2.5
Pitch mm	2.5
Rated voltage	150 V
Rated current	6 A



0.14÷0.5 mm²

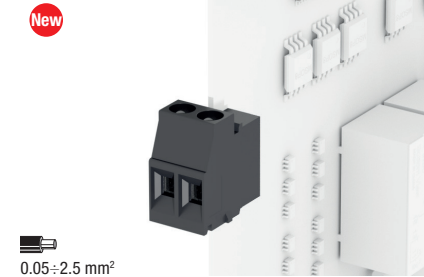


CDMH	2.5
Pitch mm	2.5
Rated voltage	150 V
Rated current	6 A



STH® Products

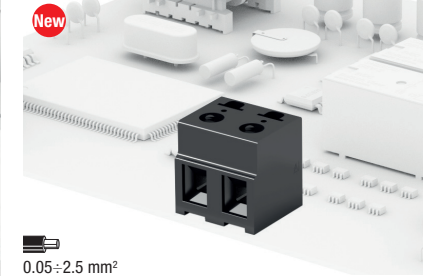
MSMH NORMO-ORTHOGONAL	5
Pitch mm	5
Rated voltage	300 V
Rated current	24 A



0.05÷2.5 mm²



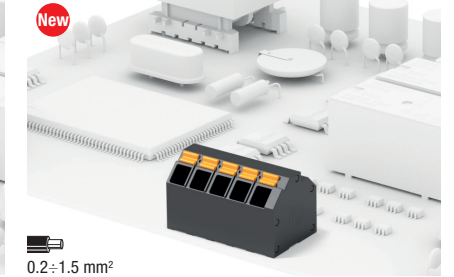
MSFH	7.62
Pitch mm	7.62
Rated voltage	750 V
Rated current	24 A



0.05÷2.5 mm²



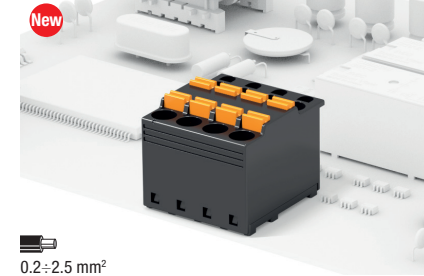
MCCH	3.5	5.08
Pitch mm	3.5	5.08
Rated voltage	300 V	300 V
Rated current	10 A	



0.2÷1.5 mm²



MCQH DOUBLE	5	10
Pitch mm	5	10
Rated voltage	300 V	750 V
Rated current	16 A	



0.2÷2.5 mm²



CIMH NORMO-ORTHOGONAL	5
Pitch mm	5
Rated voltage	300 V
Rated current	15 A



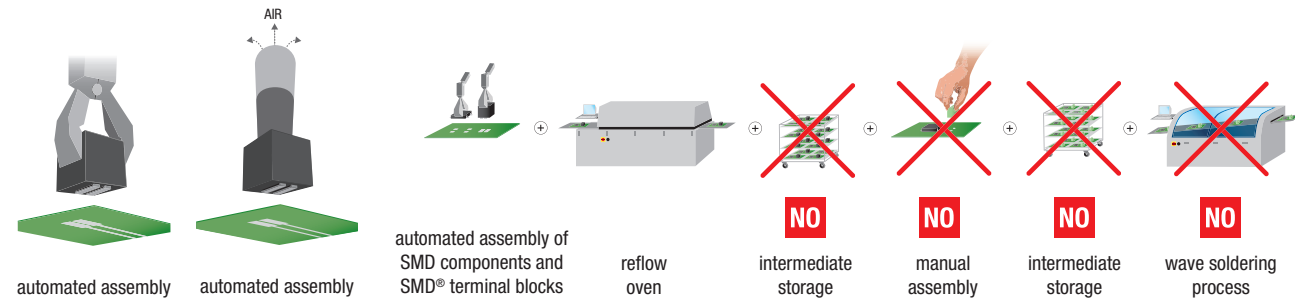
SMD Full Lean Technology

Sauro **SMD** products are suitable for PCB automated mounting via pick and place systems (pliers or vacuum), thanks to:

- ✓ High mechanical precision, with subsequent strict tolerances
- ✓ Special precautions during the design stage of the insulating housing depending on the type of mounting used
- ✓ Packaging in tape on reel, tube or tray



SMD Full Lean Technology for LARGE SCALE productions. Factory's work space and time are reduced by 75%:

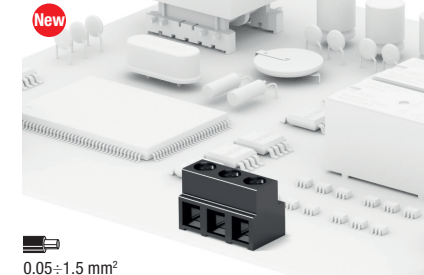


For SMD terminal blocks the main challenge is enduring torque during wiring: On MSBD test results showed a torque **0.85 ± 1.1 Nm**, almost **double the recommended tightening torque**.

approx: **75% Reduction**

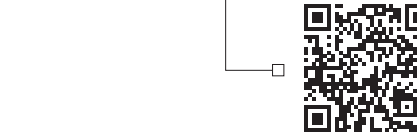
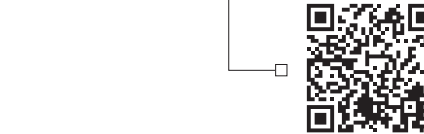
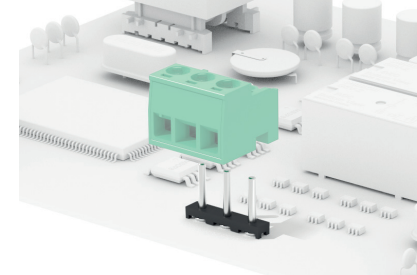
SMD Products

MSBD	5	5.08	10	10.16
Pitch mm	5	5.08	10	10.16
Rated voltage	300 V	300 V	750 V	750 V
Rated current	17.5 A			



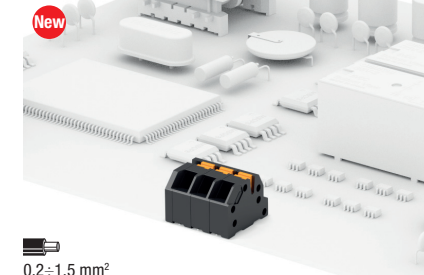
0.05±1.5 mm²

CSMD	5	10
Pitch mm	5	10
Rated voltage	300 V	1000 V
Rated current	12 A	



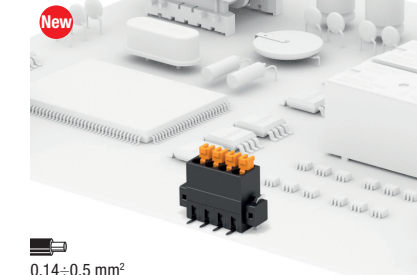
Small & Smart

MCBD	3.5	5
Pitch mm	3.5	5
Rated voltage	300 V	300 V
Rated current	16 A	



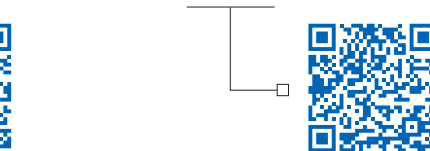
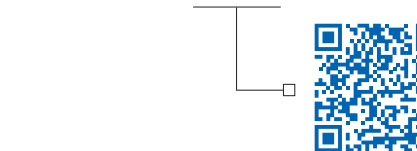
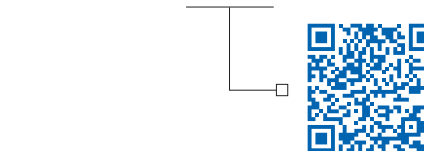
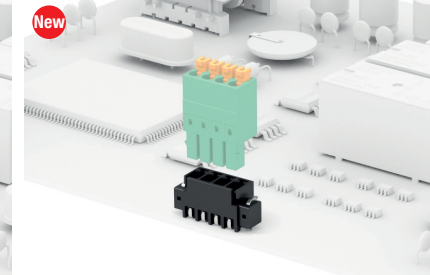
0.2±1.5 mm²

MCDD	2.5
Pitch mm	2.5
Rated voltage	150 V
Rated current	6 A



0.14±0.5 mm²

CDMD	2.5
Pitch mm	2.5
Rated voltage	150 V
Rated current	6 A



For more details about different versions and technical features of our series please used the **QR code** and download the complete datasheet or go to www.sauro.net



Contacts

Europe and Africa
SAURO s.r.l.

Italy (+39) 049 9070440
info@sauro.net

North Europe
SAURO GmbH

German (+49) 2151 7896043
saurogmbh@sauro.net

North & South America
SAURO Inc.

Texas (+1) 512 2558420
sauroinc@sauro.net

India and Oceania

SAURO Electronic Connectors (Shanghai) Co. Ltd.

Shanghai (+86) 021 58682734
saurocn@sauro.net