

**Functional Characteristics**



**Dimensional Class:**  
Medium



**Standard Colour:**  
Green



**Height:**  
15.2 mm (.598 in)



**Max Approved Wire sections:**  
Solid: 2.5 mm<sup>2</sup> (IMQ); 12 AWG (UL)  
Stranded: 1.5 mm<sup>2</sup> (IMQ); 12 AWG (UL)

**Clamp Opening Size:**  
2.5 x 2.3 mm (.098 x .087 in)



**Versions:**  
Modular

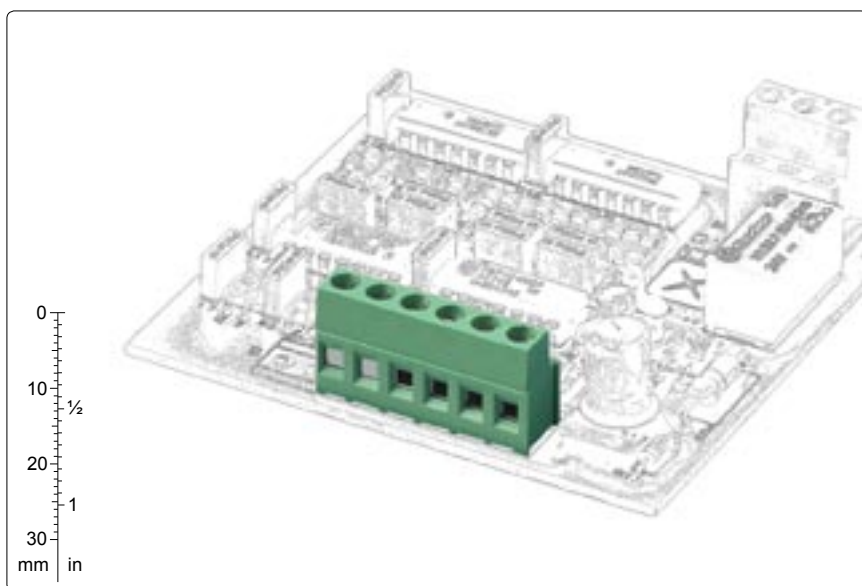
**Single Mould Poles:**  
from 2 to 25



**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)



pitch 5/5.08 mm  
from 2 to 25 poles  
straight, modular



pitch 7.5/7.62 mm  
from 2 to 5 poles  
Straight, modular



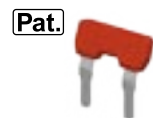
pitch 10/10.16 mm  
from 2 to 13 poles  
Straight, modular



pitch 5/5.08 mm  
from 2 to 25 poles  
90°, modular



pitch 10/10.16 mm  
from 2 to 25 poles  
90°, modular



**Pat.**  
available accessories:  
from 2 to 9 poles  
BSC for rising clamp



pitch 7.5/7.62 mm  
from 2 to 4 poles  
270° modular

**Brief Description**

With the MSS modular series terminal blocks for PCBs, wires up to 2.5mm<sup>2</sup> (12 AWG) can be used and consequently a current range of 24A certified can be reached.

The particular design makes it the only terminal block with a **real zero gap when it is tightened**, thus eliminating the risk of "false" wiring.

It is available in metric pitches from 5mm (.197 in), from 7.5 mm (.294 in) and from 10mm (.394 in), and Imperial Pitches from 5.08 mm (.200 in), from 7.62 mm (.300in) and from 10.16mm (.400 in), in monolithic blocks from 2 to 25 poles, with insertion of the wire parallel or vertical in relation to the PCB.

All the housings are modular, therefore it is possible to compose the monolithic terminal blocks from 2 to 25 poles separately, or to compose the basic terminal blocks until any number of poles is obtained. By taking advantage of this particular characteristic a minimum stock of basic terminal blocks can be kept.

It is simple to manage the product, the warehouse and the assembly with the Kit packages because several versions can be received with only one code, the part-numbers are significantly reduced and the risk of making mistakes is also reduced.

## Characteristics of Components

M3 nickel plated Copper Alloy Screw.

PA 6.6.Polyamide Housing.

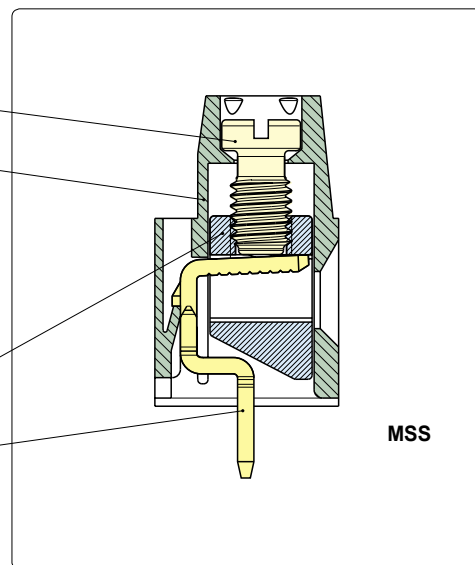
Standard Colour: GREEN.

V0 Self-extinguishing according to UL 94.

Chlorinated solvents resistant,  
with no Phosphor, Dioxin or  
detrimental to health Halogens.

Nickel plated Copper Alloy Clamp

Easy to solder lead-free  
tin-plated Copper Alloy Pin.



### Mechanical characteristics

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 ÷ +110 °C (-40 °F ÷ +230 °F)
Climatic category	40/110/21 According to EN 60068-1

### Electric characteristics\*

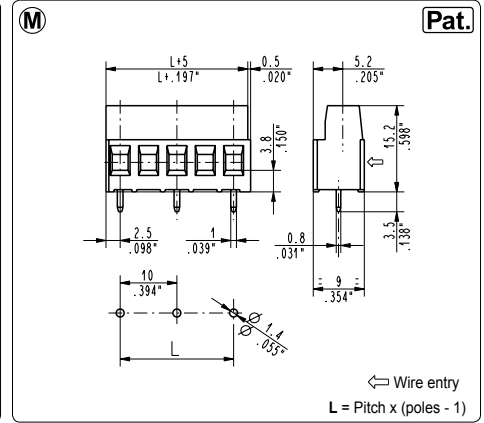
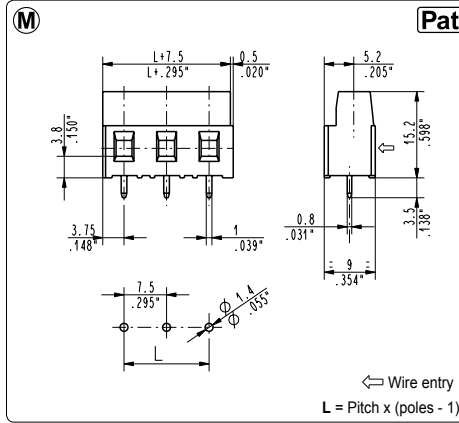
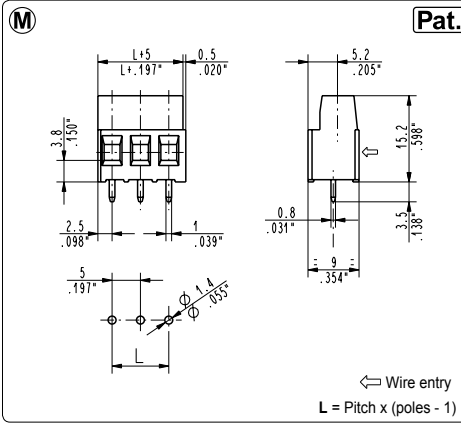
Solid wire section	30÷12 AWG (UL, CSA)* 0.05 ÷ 2.5 mm <sup>2</sup> (IMQ)*
Stranded wire section	30÷12 AWG (UL, CSA)* 0.05 ÷ 1.5 mm <sup>2</sup> (IMQ)*
Rated voltage for 5 mm (.197 in) and 5.08 mm (.200 in)	300 V (UL, CSA)*
Rated voltage for 7.5 mm (.295 in) and 7.62 mm (.300 in)	750 V (IMQ)*
Rated voltage for 10 mm (.394 in) and 10.16 mm (.400 in)	750 V (IMQ)*
Rated current	24 A (IMQ)*
Contact resistance	<15 mΩ
Insulation resistance	>10 <sup>9</sup> Ω (500V DC)

\*All the above mentioned data refer to the highest values amongst the certificated ones.  
V voltage, I current values and tightening torque are related to the norms to be applied to the product and to its use.

### Approvals

	CE:	250 V - T 110 - 24 A - 2.5 mm <sup>2</sup> solid (17.5 A - 1.5 mm <sup>2</sup> stranded) for 5 mm and 5.08 mm pitch 750 V - T 110 - 24 A - 2.5 mm <sup>2</sup> solid (17.5 A - 1.5 mm <sup>2</sup> stranded) for 7.5 mm, 7.62 mm, 10 mm and 10.16 mm pitch
	UL: File E 167473	300 V - 17.5 A (Factory Wiring), 15A (Field Wiring) - 30÷12 AWG for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch 600 V - 17.5 A (Factory Wiring), 15A (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.
	CSA: File LR 102896	300 V - 17.5 A - 30÷12 AWG for 5 mm, 5.08 mm pitch 450 V - 17.5 A - 30÷12 AWG for 7.5 mm, 7.62 mm pitch 600 V - 17.5 A - 30÷12 AWG for 10 mm and 10.16 mm pitch
	VDE: Reg. N. 40001871	250 V - 17.5 A - T 110 - 1.5 mm <sup>2</sup> for 5 mm and 5.08 mm pitch 750 V - 17.5 A - T 110 - 1.5 mm <sup>2</sup> for 7.5 mm, 7.62 mm, 10 mm and 10.16 mm pitch
	IMQ: File: EA022	250 V - T 110 - 24 A - 2.5 mm <sup>2</sup> solid (17.5 A - 1.5 mm <sup>2</sup> stranded) for 5 mm and 5.08 mm pitch 750 V - T 110 - 24 A - 2.5 mm <sup>2</sup> solid (17.5 A - 1.5 mm <sup>2</sup> stranded) for 7.5 mm, 7.62 mm, 10 mm and 10.16 mm pitch

See also "Certifications of Products", page 14



**MSS\_001** Straight, Modular-Side Entry

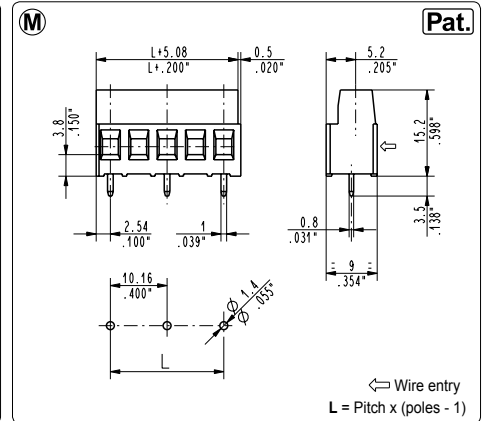
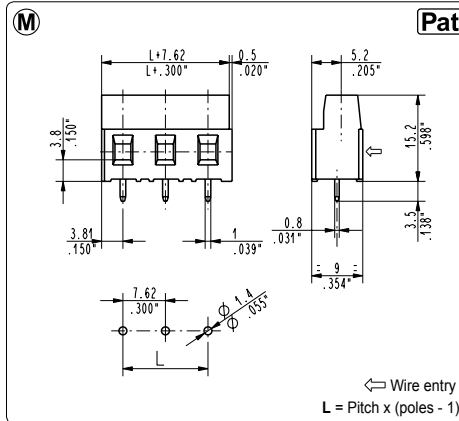
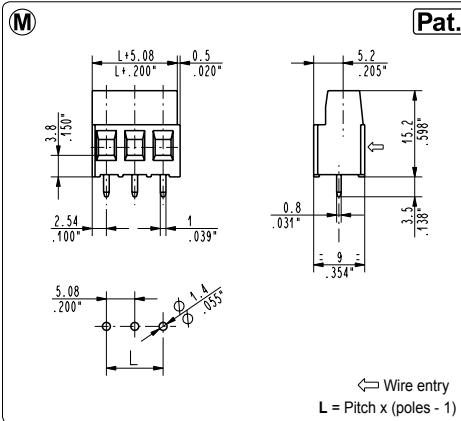
5 mm / .197" Pitch		Weight per pole: 1.61 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSS02001	900	2,90	2000	6,44
03	MSS03001	600	2,90	1750	8,45
04	MSS04001	400	2,58	1500	9,66
05	MSS05001	350	2,82	1000	8,05
06	MSS06001	300	2,90	750	7,25
07	MSS07001	250	2,82	750	8,45
08	MSS08001	200	2,58	750	9,66
09	MSS09001	175	2,54	500	7,25
10	MSS10001	175	2,82	500	8,05
11	MSS11001	150	2,66	500	8,86
12	MSS12001	150	2,90	500	9,66
13	MSS13001	75	1,57	500	10,47
14	MSS14001	75	1,69	250	5,64
15	MSS15001	75	1,81	250	6,04
16	MSS16001	75	1,93	250	6,44
17	MSS17001	75	2,05	250	6,84
18	MSS18001	75	2,17	250	7,25
19	MSS19001	50	1,53	250	7,65
20	MSS20001	50	1,61	250	8,05
21	MSS21001	50	1,69	250	8,45
22	MSS22001	50	1,77	250	8,86
23	MSS23001	50	1,85	250	9,26
24	MSS24001	50	1,93	250	9,66
25	MSS25001	50	2,01	250	10,06

**MSS\_003** Straight, Modular-Side Entry

7.5 mm / .295" Pitch		Weight per pole: 1.78 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSS02003	300	1,07	1750	6,23
03	MSS03003	200	1,07	1500	8,01
04	MSS04003	150	1,07	1250	8,90

**MSS\_002** Straight, Modular-Side Entry

10 mm / .394" Pitch		Weight per pole: 1.82 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MSS01002	450	0,82	2000	3,64
02	MSS02002	300	1,09	1750	6,37
03	MSS03002	175	0,96	1000	5,46
04	MSS04002	125	0,91	750	5,46
05	MSS05002	100	0,91	500	4,55
06	MSS06002	75	0,82	500	5,46
07	MSS07002	75	0,96	500	6,37
08	MSS08002	75	1,09	500	7,28
09	MSS09002	75	1,23	250	4,01
10	MSS10002	50	0,91	250	4,55
11	MSS11002	50	1,00	250	5,01
12	MSS12002	50	1,09	250	5,46
13	MSS13002	50	1,18	250	5,92



**MSS\_005** Straight, Modular-Side Entry

5.08 mm / .200" Pitch		Weight per pole: 1.61 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSS02005	900	2,90	2000	6,44
03	MSS03005	600	2,90	1750	8,45
04	MSS04005	400	2,58	1500	9,66
05	MSS05005	350	2,82	1000	8,05
06	MSS06005	300	2,90	750	7,25
07	MSS07005	250	2,82	750	8,45
08	MSS08005	200	2,58	750	9,66
09	MSS09005	175	2,54	500	7,25
10	MSS10005	175	2,82	500	8,05
11	MSS11005	150	2,66	500	8,86
12	MSS12005	150	2,90	500	9,66
13	MSS13005	75	1,57	500	10,47
14	MSS14005	75	1,69	250	5,64
15	MSS15005	75	1,81	250	6,04
16	MSS16005	75	1,93	250	6,44
17	MSS17005	75	2,05	250	6,84
18	MSS18005	75	2,17	250	7,25
19	MSS19005	50	1,53	250	7,65
20	MSS20005	50	1,61	250	8,05
21	MSS21005	50	1,69	250	8,45
22	MSS22005	50	1,77	250	8,86
23	MSS23005	50	1,85	250	9,26
24	MSS24005	50	1,93	250	9,66
25	MSS25005	50	2,01	250	10,06

**MSS\_007** Straight, Modular-Side Entry

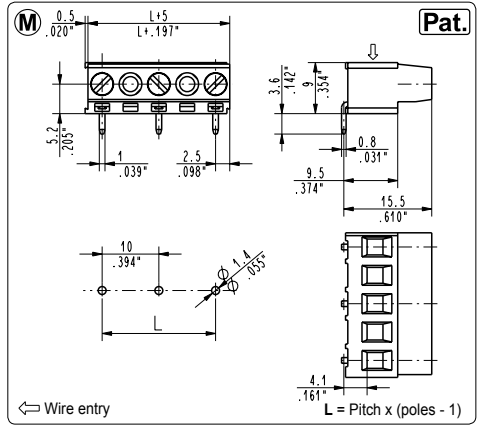
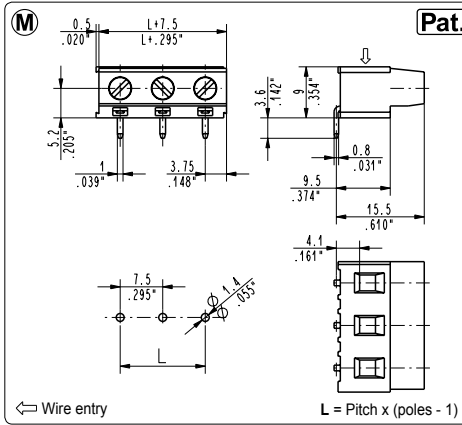
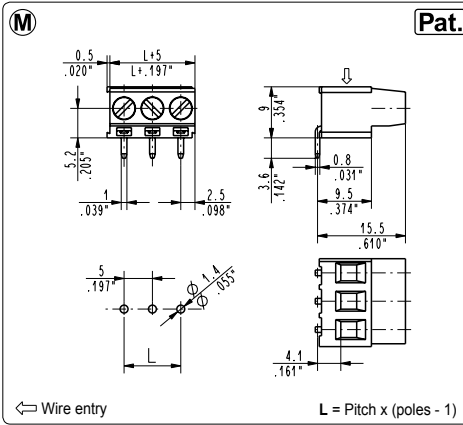
7.62 mm / .300" Pitch		Weight per pole: 1.78 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSS02007	300	1,07	1750	6,23
03	MSS03007	200	1,07	1500	8,01

**MSS\_006** Straight, Modular-Side Entry

10.16 mm / .400" Pitch		Weight per pole: 1.82 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MSS01006	450	0,82	2000	3,64
02	MSS02006	300	1,09	1750	6,37
03	MSS03006	175	0,96	1000	5,46
04	MSS04006	125	0,91	750	5,46
05	MSS05006	100	0,91	500	4,55
06	MSS06006	75	0,82	500	5,46
07	MSS07006	75	0,96	500	6,37
08	MSS08006	75	1,09	500	7,28
09	MSS09006	75	1,23	250	4,01
10	MSS10006	50	0,91	250	4,55
11	MSS11006	50	1,00	250	5,01
12	MSS12006	50	1,09	250	5,46
13	MSS13006	50	1,18	250	5,92

\*W [kg]: Approximate Weight per box in kg

\*\*Industrial packaging: add "-00000E" at standard code



**MSS\_091 90° Modular, Top Entry**

5 mm / .197" Pitch Weight per pole: 1.61 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSS02091	900	2,90	2000	6,44
03	MSS03091	600	2,90	1750	8,45
04	MSS04091	400	2,58	1500	9,66
05	MSS05091	350	2,82	1000	8,05
06	MSS06091	300	2,90	750	7,25
07	MSS07091	250	2,82	750	8,45
08	MSS08091	200	2,58	750	9,66
09	MSS09091	175	2,54	500	7,25
10	MSS10091	175	2,82	500	8,05
11	MSS11091	150	2,66	500	8,86
12	MSS12091	150	2,90	500	9,66
13	MSS13091	75	1,57	500	10,47
14	MSS14091	75	1,69	250	5,64
15	MSS15091	75	1,81	250	6,04
16	MSS16091	75	1,93	250	6,44
17	MSS17091	75	2,05	250	6,84
18	MSS18091	75	2,17	250	7,25
19	MSS19091	50	1,53	250	7,65
20	MSS20091	50	1,61	250	8,05
21	MSS21091	50	1,69	250	8,45
22	MSS22091	50	1,77	250	8,86
23	MSS23091	50	1,85	250	9,26
24	MSS24091	50	1,93	250	9,66
25	MSS25091	50	2,01	250	10,06

**MSS\_093 90° Modular, Top Entry**

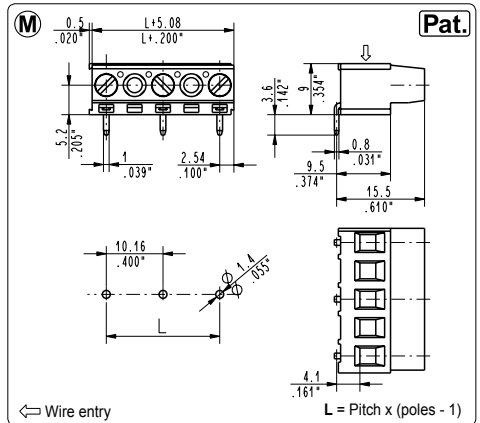
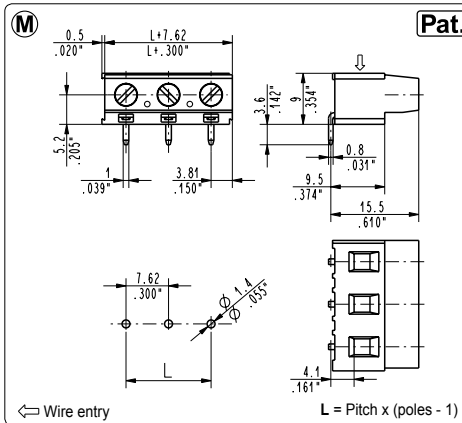
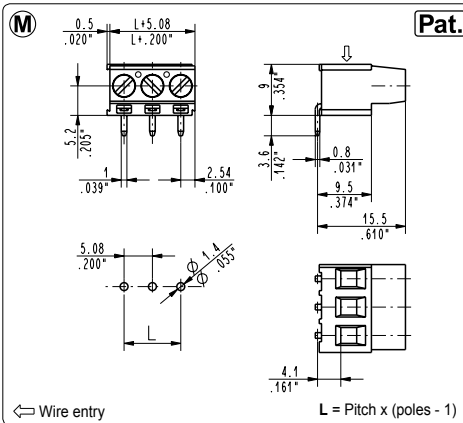
7.5 mm / .295" Pitch Weight per pole: 1.78 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSS02093	300	1,07	1750	6,23
03	MSS03093	200	1,07	1500	8,01
04	MSS04093	150	1,07	1250	8,90

**MSS\_092 90° Modular, Top Entry**

10 mm / .394" Pitch Weight per pole: 1.82 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MSS01092	450	0,82	2000	3,64
02	MSS02092	300	1,09	1750	6,37
03	MSS03092	175	0,96	1000	5,46
04	MSS04092	125	0,91	750	5,46
05	MSS05092	100	0,91	500	4,55
06	MSS06092	75	0,82	500	5,46
07	MSS07092	75	0,96	500	6,37
08	MSS08092	75	1,09	500	7,28
09	MSS09092	75	1,23	250	4,01
10	MSS10092	50	0,91	250	4,55
11	MSS11092	50	1,00	250	5,01
12	MSS12092	50	1,09	250	5,46
13	MSS13092	50	1,18	250	5,92



**MSS\_095 90° Modular, Top Entry**

5.08 mm / .200" Pitch Weight per pole: 1.61 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSS02095	900	2,90	2000	6,44
03	MSS03095	600	2,90	1750	8,45
04	MSS04095	400	2,58	1500	9,66
05	MSS05095	350	2,82	1000	8,05
06	MSS06095	300	2,90	750	7,25
07	MSS07095	250	2,82	750	8,45
08	MSS08095	200	2,58	750	9,66
09	MSS09095	175	2,54	500	7,25
10	MSS10095	175	2,82	500	8,05
11	MSS11095	150	2,66	500	8,86
12	MSS12095	150	2,90	500	9,66
13	MSS13095	75	1,57	500	10,47
14	MSS14095	75	1,69	250	5,64
15	MSS15095	75	1,81	250	6,04
16	MSS16095	75	1,93	250	6,44
17	MSS17095	75	2,05	250	6,84
18	MSS18095	75	2,17	250	7,25
19	MSS19095	50	1,53	250	7,65
20	MSS20095	50	1,61	250	8,05
21	MSS21095	50	1,69	250	8,45
22	MSS22095	50	1,77	250	8,86
23	MSS23095	50	1,85	250	9,26
24	MSS24095	50	1,93	250	9,66
25	MSS25095	50	2,01	250	10,06

**MSS\_097 90° Modular, Top Entry**

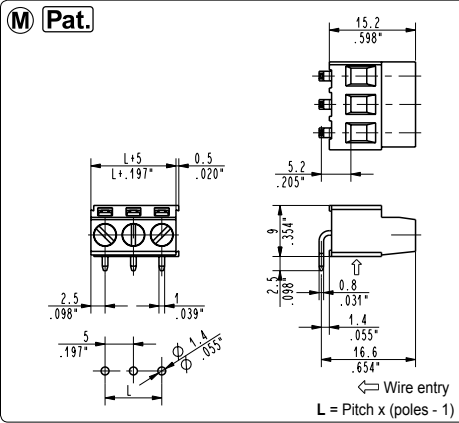
7.62 mm / .300" Pitch Weight per pole: 1.78 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSS02097	300	1,07	1750	6,23
03	MSS03097	200	1,07	1500	8,01

**MSS\_096 90° Modular, Top Entry**

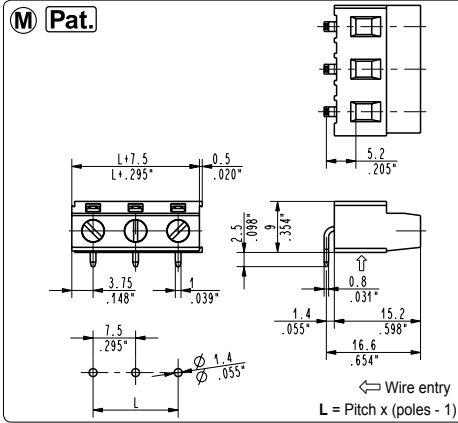
10.16 mm / .400" Pitch Weight per pole: 1.82 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MSS01096	450	0,82	2000	3,64
02	MSS02096	300	1,09	1750	6,37
03	MSS03096	175	0,96	1000	5,46
04	MSS04096	125	0,91	750	5,46
05	MSS05096	100	0,91	500	4,55
06	MSS06096	75	0,82	500	5,46
07	MSS07096	75	0,96	500	6,37
08	MSS08096	75	1,09	500	7,28
09	MSS09096	75	1,23	250	4,01
10	MSS10096	50	0,91	250	4,55
11	MSS11096	50	1,00	250	5,01
12	MSS12096	50	1,09	250	5,46
13	MSS13096	50	1,18	250	5,92



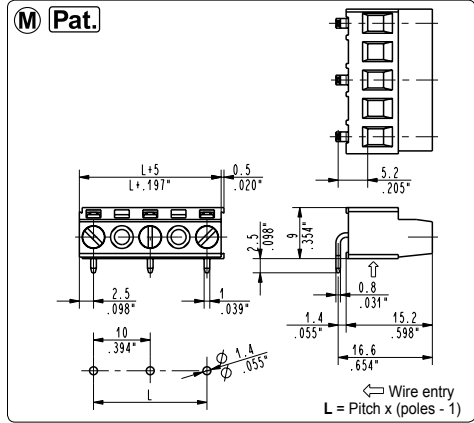
**MSS\_051 270° Modular, Bottom Entry**

5 mm / .197" Pitch		Weight per pole: 1.61 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSS02051	900	2,90	2000	6,44
03	MSS03051	600	2,90	1750	8,45
04	MSS04051	400	2,58	1500	9,66
05	MSS05051	350	2,82	1000	8,05
06	MSS06051	300	2,90	750	7,25
07	MSS07051	250	2,82	750	8,45
08	MSS08051	200	2,58	750	9,66
09	MSS09051	175	2,54	500	7,25
10	MSS10051	175	2,82	500	8,05
11	MSS11051	150	2,66	500	8,86
12	MSS12051	150	2,90	500	9,66
13	MSS13051	75	1,57	500	10,47
14	MSS14051	75	1,69	250	5,64
15	MSS15051	75	1,81	250	6,04
16	MSS16051	75	1,93	250	6,44
17	MSS17051	75	2,05	250	6,84
18	MSS18051	75	2,17	250	7,25
19	MSS19051	50	1,53	250	7,65
20	MSS20051	50	1,61	250	8,05
21	MSS21051	50	1,69	250	8,45
22	MSS22051	50	1,77	250	8,86
23	MSS23051	50	1,85	250	9,26
24	MSS24051	50	1,93	250	9,66
25	MSS25051	50	2,01	250	10,06



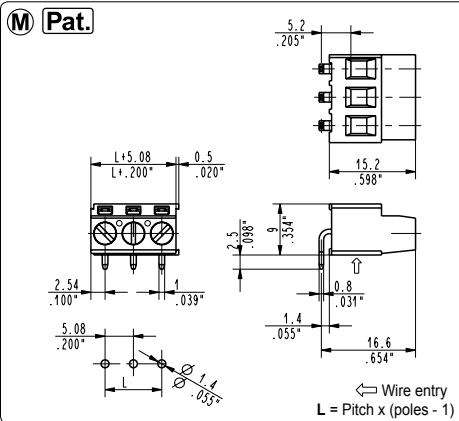
**MSS\_053 270° Modular, Bottom Entry**

7.5 mm / .295" Pitch		Weight per pole: 1.78 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSS02053	300	1,07	1750	6,23
03	MSS03053	200	1,07	1500	8,01
04	MSS04053	150	1,07	1250	8,90



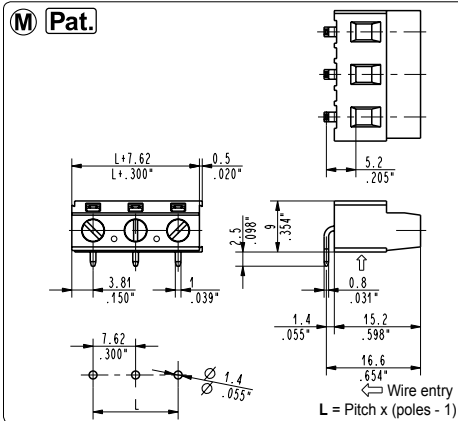
**MSS\_052 270° Modular, Bottom Entry**

10 mm / .394" Pitch		Weight per pole: 1.82 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MSS01052	450	0,82	2000	3,64
02	MSS02052	300	1,09	1750	6,37
03	MSS03052	175	0,96	1000	5,46
04	MSS04052	125	0,91	750	5,46
05	MSS05052	100	0,91	500	4,55
06	MSS06052	75	0,82	500	5,46
07	MSS07052	75	0,96	500	6,37
08	MSS08052	75	1,09	500	7,28
09	MSS09052	75	1,23	250	4,01
10	MSS10052	50	0,91	250	4,55
11	MSS11052	50	1,00	250	5,01
12	MSS12052	50	1,09	250	5,46
13	MSS13052	50	1,18	250	5,92



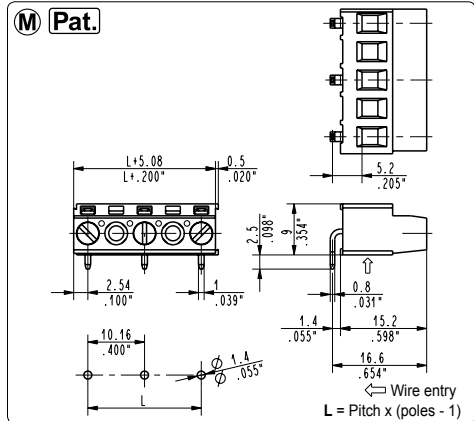
**MSS\_055 270° Modular, Bottom Entry**

5.08 mm / .200" Pitch		Weight per pole: 1.61 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSS02055	900	2,90	2000	6,44
03	MSS03055	600	2,90	1750	8,45
04	MSS04055	400	2,58	1500	9,66
05	MSS05055	350	2,82	1000	8,05
06	MSS06055	300	2,90	750	7,25
07	MSS07055	250	2,82	750	8,45
08	MSS08055	200	2,58	750	9,66
09	MSS09055	175	2,54	500	7,25
10	MSS10055	175	2,82	500	8,05
11	MSS11055	150	2,66	500	8,86
12	MSS12055	150	2,90	500	9,66
13	MSS13055	75	1,57	500	10,47
14	MSS14055	75	1,69	250	5,64
15	MSS15055	75	1,81	250	6,04
16	MSS16055	75	1,93	250	6,44
17	MSS17055	75	2,05	250	6,84
18	MSS18055	75	2,17	250	7,25
19	MSS19055	50	1,53	250	7,65
20	MSS20055	50	1,61	250	8,05
21	MSS21055	50	1,69	250	8,45
22	MSS22055	50	1,77	250	8,86
23	MSS23055	50	1,85	250	9,26
24	MSS24055	50	1,93	250	9,66
25	MSS25055	50	2,01	250	10,06



**MSS\_057 270° Modular, Bottom Entry**

7.62 mm / .300" Pitch		Weight per pole: 1.78 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSS02057	300	1,07	1750	6,23
03	MSS03057	200	1,07	1500	8,01



**MSS\_056 270° Modular, Bottom Entry**

10.16 mm / .400" Pitch		Weight per pole: 1.82 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MSS01056	450	0,82	2000	3,64
02	MSS02056	300	1,09	1750	6,37
03	MSS03056	175	0,96	1000	5,46
04	MSS04056	125	0,91	750	5,46
05	MSS05056	100	0,91	500	4,55
06	MSS06056	75	0,82	500	5,46
07	MSS07056	75	0,96	500	6,37
08	MSS08056	75	1,09	500	7,28
09	MSS09056	75	1,23	250	4,01
10	MSS10056	50	0,91	250	4,55
11	MSS11056	50	1,00	250	5,01
12	MSS12056	50	1,09	250	5,46
13	MSS13056	50	1,18	250	5,92

\*W [kg]: Approximate Weight per box in kg

\*\*Industrial packaging: add "-00000E" at standard code

# BSC

## BRIDGE for SHORTCIRCUIT

respecting our philosophy

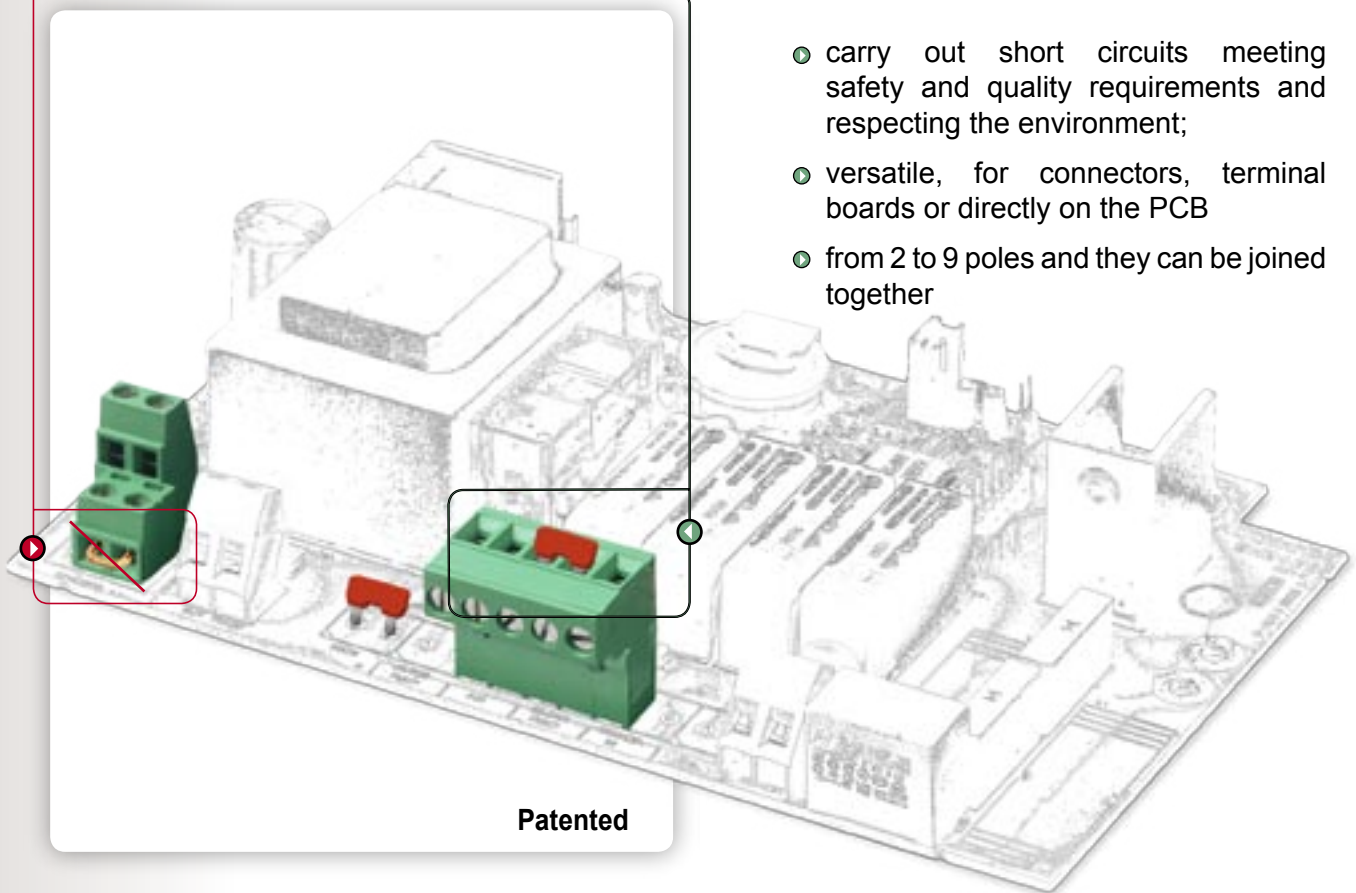
outlaw

lawful



**Sauro**<sup>®</sup>  
ELECTRONIC CONNECTORS

- carry out short circuits meeting safety and quality requirements and respecting the environment;
- versatile, for connectors, terminal boards or directly on the PCB
- from 2 to 9 poles and they can be joined together



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 (patented).

Sauro Bridges for Short Circuit meet the safety and environmental requirements demanded by the strictest international standards because the protruding part, made of copper alloy the surface of which is lead free tin, is protected by a self-extinguishing UL94-V0 insulated housing which

does not contain BPDE and PBD.

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.

Further information can be found on pages 8 and 268 or from our internet site at [www.sauro.net](http://www.sauro.net).

