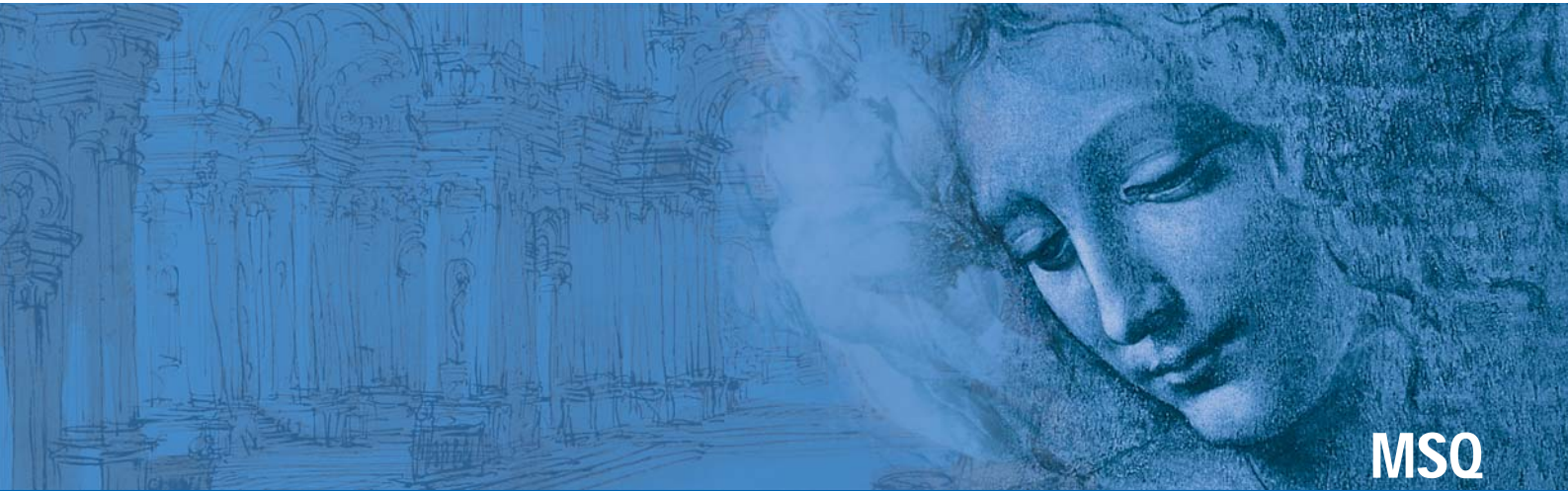




GREEN ELECTRONICS



**MSQ**

Terminal Blocks



ISO  
9001



ISO  
14001



BS OHSAS  
18001:2007



**SauRO**<sup>®</sup>

**ELECTRONIC CONNECTORS**

*by the law*

### Functional characteristics



**Dimensional class:**  
high



**Standard colour:**  
green



**Height:**  
19 mm (.748 in)



**Max approved wire sections:**  
solid: 4 mm<sup>2</sup> (IMQ); 12 AWG (UL)  
stranded: 2.5 mm<sup>2</sup> (IMQ); 12 AWG (UL)

**Clamp opening size:**  
2.6 x 3.5 mm (.102 x .138 in)



**Versions:**  
modular

**Single mould poles:**  
from 2 to 25



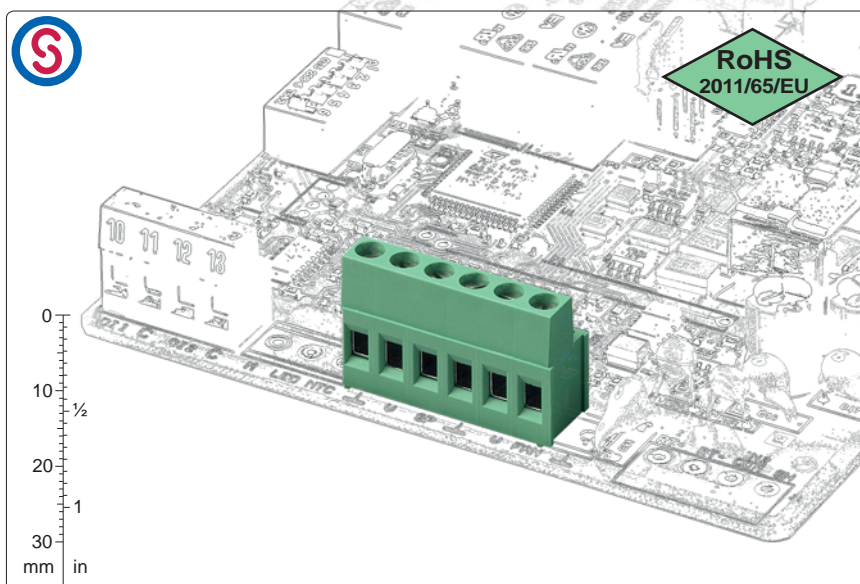
**Pitches:**  
metric 5 mm, 7.5 mm, 10 mm  
(.197 in, .295 in, .394 in)



imperial 5.08 mm, 7.62 mm, 10.16 mm  
(.200 in, .300 in, .400 in)



RoHS  
2011/65/EU



pitch 5/5.08 mm  
straight, modular



pitch 7.5/7.62 mm  
straight, modular



pitch 10/10.16 mm  
straight, modular



pitch 5/5.08 mm  
90° version, modular



pitch 10/10.16 mm  
90° version, modular

Pat.



available accessories:  
from 2 to 9 poles  
BSC\_00\_0R for rising clamp

### Brief description

With the **MSQ** modular series terminal blocks for PCBs, wires up to 4mm<sup>2</sup> (11 AWG) can be used and therefore a current range of 32A certified can be reached.

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

All housings are modular, therefore it is possible to combine monolithic terminal blocks from 2 to 25 poles separately, or the basic terminal

blocks until any number of poles is obtained. By making the most of this particular feature a minimum quantity of basic terminal blocks can be stored.

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

## Components features

M3 nickel plated copper alloy screw.

Polyamide housing.

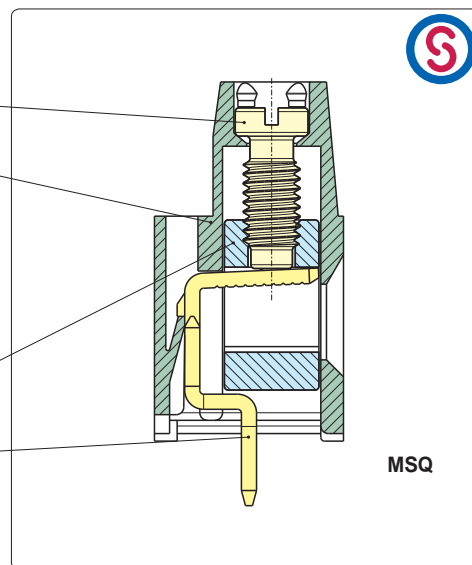
Standard colour: GREEN.

V0 self-extinguishing according to UL 94.

Chlorinated solvent resistant,  
with no phosphor, dioxin or  
detrimental halogens.

Nickel plated copper alloy clamp

Easy to solder lead-free  
tin-plated copper alloy pin.



MSQ

## Mechanical features

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

## Electrical features\*

Solid wire section	30÷12 AWG (UL)* 0.05÷4 mm <sup>2</sup> (IMQ)*
Stranded wire section	30÷12 AWG (UL)* 0.05÷2.5 mm <sup>2</sup> (IMQ)*
Rated voltage for 5 mm (.197 in) and 5.08 mm (.200 in)	300 V (UL)*
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	32 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 certified 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

IEC-EN

IEC:	250 V - T 110 - 32 A - 4 mm <sup>2</sup> solid (24 A - 2.5 mm <sup>2</sup> stranded) for 5 mm and 5.08 mm pitch
EN 60998	750 V - T 110 - 32 A - 4 mm <sup>2</sup> solid (24 A - 2.5 mm <sup>2</sup> stranded) for 7.5 mm, 7.62 mm, 10 mm and 10.16 mm pitch

UL

UL:	300 V - 24 A (factory wiring), 20 A (field wiring) - 30÷12 AWG - 7 lbf-in for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
File E167473	600 V - 24 A (factory wiring), 20 A (field wiring) - 30÷12 AWG - 7 lbf-in 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

VDE:	250 V - 20 A - T 110 - 2.5 mm <sup>2</sup> for 5 mm and 5.08 mm pitch
File n. 40022743	450 V - 24 A - T 110 - 2.5 mm <sup>2</sup> for 7.5 mm and 7.62 mm pitch
	750 V - 24 A - T 110 - 2.5 mm <sup>2</sup> for 10 mm and 10.16 mm pitch

IMQ

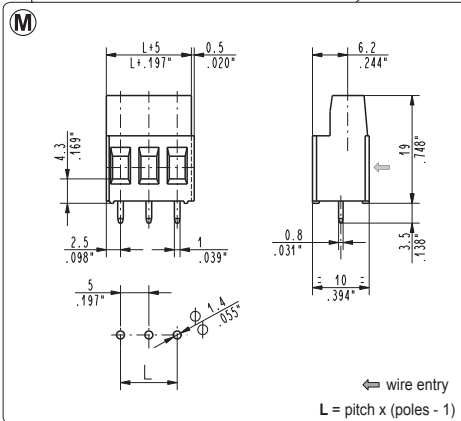
IMQ:	250 V - T 110 - 32 A - 4 mm <sup>2</sup> solid (24 A - 2.5 mm <sup>2</sup> stranded) for 5 mm and 5.08 mm pitch
File: EB731	750 V - T 110 - 32 A - 4 mm <sup>2</sup> solid (24 A - 2.5 mm <sup>2</sup> stranded) for 7.5 mm, 7.62 mm, 10 mm and 10.16 mm pitch

CSA

CSA:	300 V - 24 A - 30÷11 AWG for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
File LR102896	600 V - 24 A - 30÷11 AWG for 10 mm and 10.16 mm pitch

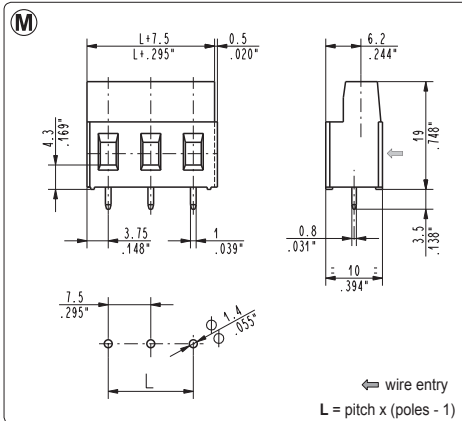
See also "Certifications", page 8





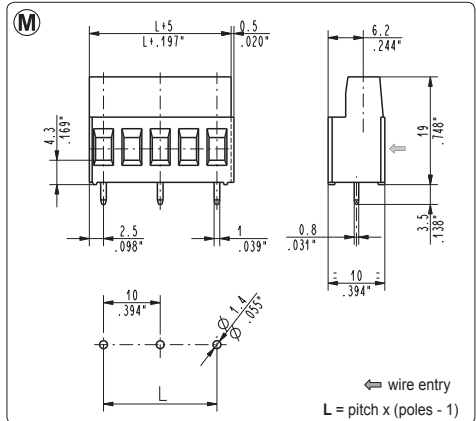
**MSQ\_001** straight, modular

5 mm / .197" pitch				
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.** W [kg]*
02	MSQ02001	350	1,42	2000 8,12
03	MSQ03001	225	1,37	1250 7,61
04	MSQ04001	175	1,42	1000 8,12
05	MSQ05001	125	1,27	750 7,61
06	MSQ06001	125	1,52	750 9,14
07	MSQ07001	100	1,42	500 7,11
08	MSQ08001	75	1,22	500 8,12
09	MSQ09001	75	1,37	500 9,14
10	MSQ10001	75	1,52	500 10,15
11	MSQ11001	75	1,67	250 5,58
12	MSQ12001	50	1,22	250 6,09
13	MSQ13001	50	1,32	250 6,60
14	MSQ14001	50	1,42	250 7,11
15	MSQ15001	50	1,52	250 7,61
16	MSQ16001	50	1,62	250 8,12
17	MSQ17001	50	1,73	200 6,90
18	MSQ18001	50	1,83	200 7,31
19	MSQ19001	25	0,96	200 7,71
20	MSQ20001	25	1,02	200 8,12
21	MSQ21001	25	1,07	200 8,53
22	MSQ22001	25	1,12	200 8,93
23	MSQ23001	25	1,17	200 9,34
24	MSQ24001	25	1,22	150 7,31
25	MSQ25001	25	1,27	150 7,61



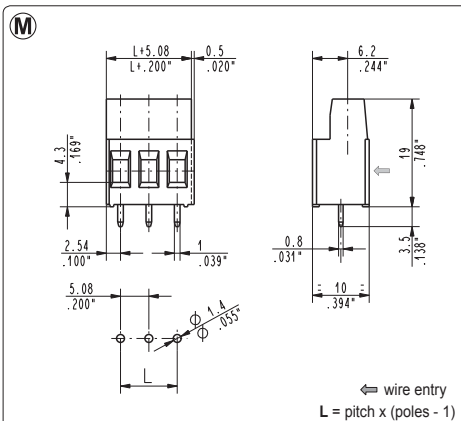
**MSQ\_003** straight, modular

7.5 mm / .295" pitch				
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.** W [kg]*
02	MSQ02003	225	1,08	1250 6,00
03	MSQ03003	150	1,08	750 5,40
04	MSQ04003	100	0,96	500 4,80



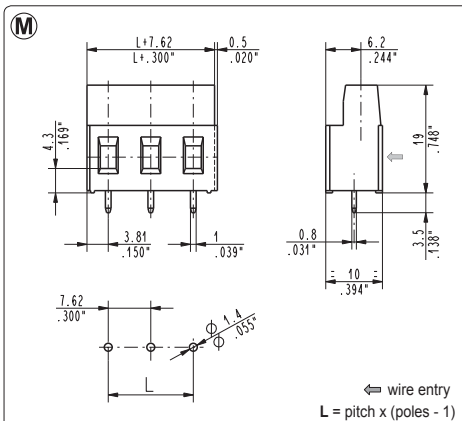
**MSQ\_002** straight, modular

10 mm / .394" pitch				
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.** W [kg]*
01	MSQ01002	350	0,82	2000 4,70
02	MSQ02002	225	1,06	1250 5,88
03	MSQ03002	125	0,88	750 5,29
04	MSQ04002	100	0,94	500 4,70
05	MSQ05002	75	0,88	500 5,88
06	MSQ06002	75	1,06	500 7,05
07	MSQ07002	50	0,82	250 4,11
08	MSQ08002	50	0,94	250 4,70
09	MSQ09002	50	1,06	250 5,29
10	MSQ10002	25	0,59	250 5,88
11	MSQ11002	25	0,65	250 6,46
12	MSQ12002	25	0,71	250 7,05
13	MSQ13002	25	0,76	250 7,64



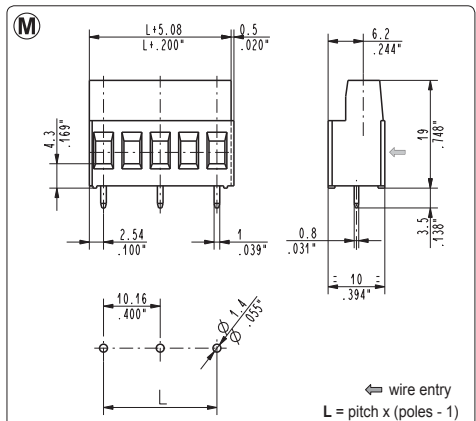
**MSQ\_005** straight, modular

5.08 mm / .200" pitch				
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.** W [kg]*
02	MSQ02005	350	1,42	2000 8,12
03	MSQ03005	225	1,37	1250 7,61
04	MSQ04005	175	1,42	1000 8,12
05	MSQ05005	125	1,27	750 7,61
06	MSQ06005	125	1,52	750 9,14
07	MSQ07005	100	1,42	500 7,11
08	MSQ08005	75	1,22	500 8,12
09	MSQ09005	75	1,37	500 9,14
10	MSQ10005	75	1,52	500 10,15
11	MSQ11005	75	1,67	250 5,58
12	MSQ12005	50	1,22	250 6,09
13	MSQ13005	50	1,32	250 6,60
14	MSQ14005	50	1,42	250 7,11
15	MSQ15005	50	1,52	250 7,61
16	MSQ16005	50	1,62	250 8,12
17	MSQ17005	50	1,73	200 6,90
18	MSQ18005	50	1,83	200 7,31
19	MSQ19005	25	0,96	200 7,71
20	MSQ20005	25	1,02	200 8,12
21	MSQ21005	25	1,07	200 8,53
22	MSQ22005	25	1,12	200 8,93
23	MSQ23005	25	1,17	200 9,34
24	MSQ24005	25	1,22	150 7,31
25	MSQ25005	25	1,27	150 7,61



**MSQ\_007** straight, modular

7.62 mm / .300" pitch				
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.** W [kg]*
02	MSQ02007	225	1,08	1250 6,00
03	MSQ03007	150	1,08	750 5,40

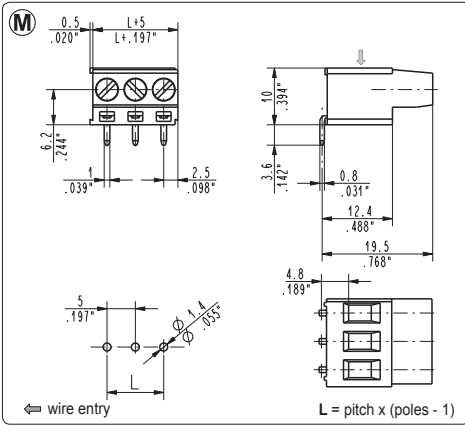


**MSQ\_006** straight, modular

10.16 mm / .400" pitch				
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.** W [kg]*
01	MSQ01006	350	0,82	2000 4,70
02	MSQ02006	225	1,06	1250 5,88
03	MSQ03006	125	0,88	750 5,29
04	MSQ04006	100	0,94	500 4,70
05	MSQ05006	75	0,88	500 5,88
06	MSQ06006	75	1,06	500 7,05
07	MSQ07006	50	0,82	250 4,11
08	MSQ08006	50	0,94	250 4,70
09	MSQ09006	50	1,06	250 5,29
10	MSQ10006	25	0,59	250 5,88
11	MSQ11006	25	0,65	250 6,46
12	MSQ12006	25	0,71	250 7,05
13	MSQ13006	25	0,76	250 7,64

\*W [kg]: approximate weight per box in kg

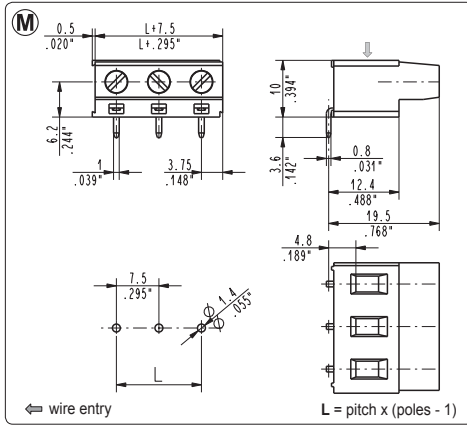
\*\*Industrial packaging: add "-00000E" at standard code



**MSQ\_091** 90°, modular

5 mm / .197" pitch

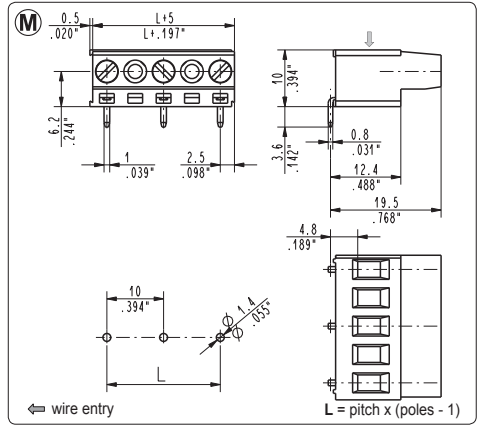
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSQ02091	350	1,42	2000	8,12
03	MSQ03091	225	1,37	1250	7,61
04	MSQ04091	175	1,42	1000	8,12
05	MSQ05091	125	1,27	750	7,61
06	MSQ06091	125	1,52	750	9,14
07	MSQ07091	100	1,42	500	7,11
08	MSQ08091	75	1,22	500	8,12
09	MSQ09091	75	1,37	500	9,14
10	MSQ10091	75	1,52	500	10,15
11	MSQ11091	75	1,67	250	5,58
12	MSQ12091	50	1,22	250	6,09
13	MSQ13091	50	1,32	250	6,60
14	MSQ14091	50	1,42	250	7,11
15	MSQ15091	50	1,52	250	7,61
16	MSQ16091	50	1,62	250	8,12
17	MSQ17091	50	1,73	200	6,90
18	MSQ18091	50	1,83	200	7,31
19	MSQ19091	25	0,96	200	7,71
20	MSQ20091	25	1,02	200	8,12
21	MSQ21091	25	1,07	200	8,53
22	MSQ22091	25	1,12	200	8,93
23	MSQ23091	25	1,17	200	9,34
24	MSQ24091	25	1,22	150	7,31
25	MSQ25091	25	1,27	150	7,61



**MSQ\_093** 90°, modular

7.5 mm / .295" pitch

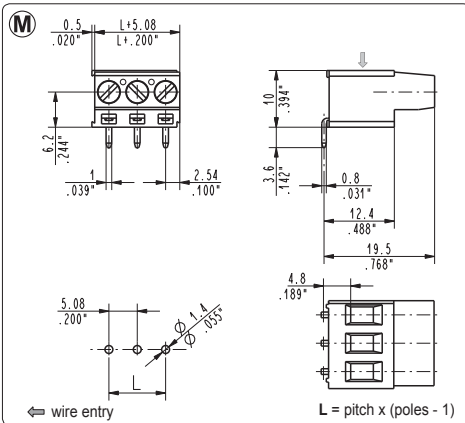
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSQ02093	225	1,08	1250	6,00
03	MSQ03093	150	1,08	750	5,40
04	MSQ04093	100	0,96	500	4,80



**MSQ\_092** 90°, modular

10 mm / .394" pitch

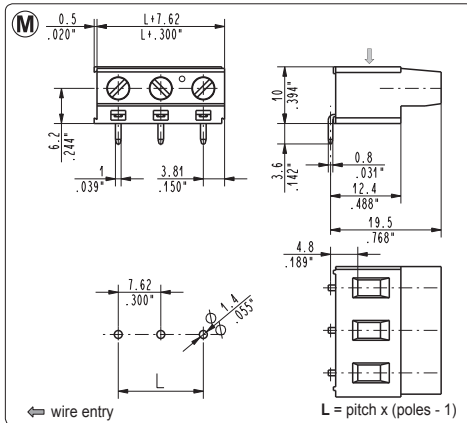
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MSQ01092	350	0,82	2000	4,70
02	MSQ02092	225	1,06	1250	5,88
03	MSQ03092	125	0,88	750	5,29
04	MSQ04092	100	0,94	500	4,70
05	MSQ05092	75	0,88	500	5,88
06	MSQ06092	75	1,06	500	7,05
07	MSQ07092	50	0,82	250	4,11
08	MSQ08092	50	0,94	250	4,70
09	MSQ09092	50	1,06	250	5,29
10	MSQ10092	25	0,59	250	5,88
11	MSQ11092	25	0,65	250	6,46
12	MSQ12092	25	0,71	250	7,05
13	MSQ13092	25	0,76	250	7,64



**MSQ\_095** 90°, modular

5.08 mm / .200" pitch

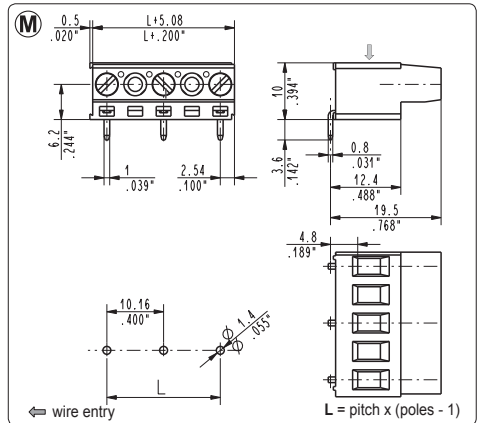
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSQ02095	350	1,42	2000	8,12
03	MSQ03095	225	1,37	1250	7,61
04	MSQ04095	175	1,42	1000	8,12
05	MSQ05095	125	1,27	750	7,61
06	MSQ06095	125	1,52	750	9,14
07	MSQ07095	100	1,42	500	7,11
08	MSQ08095	75	1,22	500	8,12
09	MSQ09095	75	1,37	500	9,14
10	MSQ10095	75	1,52	500	10,15
11	MSQ11095	75	1,67	250	5,58
12	MSQ12095	50	1,22	250	6,09
13	MSQ13095	50	1,32	250	6,60
14	MSQ14095	50	1,42	250	7,11
15	MSQ15095	50	1,52	250	7,61
16	MSQ16095	50	1,62	250	8,12
17	MSQ17095	50	1,73	200	6,90
18	MSQ18095	50	1,83	200	7,31
19	MSQ19095	25	0,96	200	7,71
20	MSQ20095	25	1,02	200	8,12
21	MSQ21095	25	1,07	200	8,53
22	MSQ22095	25	1,12	200	8,93
23	MSQ23095	25	1,17	200	9,34
24	MSQ24095	25	1,22	150	7,31
25	MSQ25095	25	1,27	150	7,61



**MSQ\_097** 90°, modular

7.62 mm / .300" pitch

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSQ02097	225	1,08	1250	6,00
03	MSQ03097	150	1,08	750	5,40

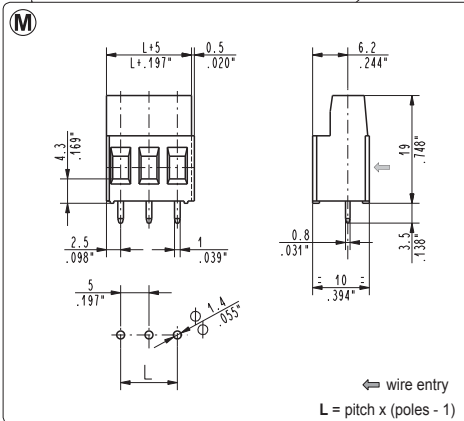


**MSQ\_096** 90°, modular

10.16 mm / .400" pitch

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MSQ01096	350	0,82	2000	4,70
02	MSQ02096	225	1,06	1250	5,88
03	MSQ03096	125	0,88	750	5,29
04	MSQ04096	100	0,94	500	4,70
05	MSQ05096	75	0,88	500	5,88
06	MSQ06096	75	1,06	500	7,05
07	MSQ07096	50	0,82	250	4,11
08	MSQ08096	50	0,94	250	4,70
09	MSQ09096	50	1,06	250	5,29
10	MSQ10096	25	0,59	250	5,88
11	MSQ11096	25	0,65	250	6,46
12	MSQ12096	25	0,71	250	7,05
13	MSQ13096	25	0,76	250	7,64

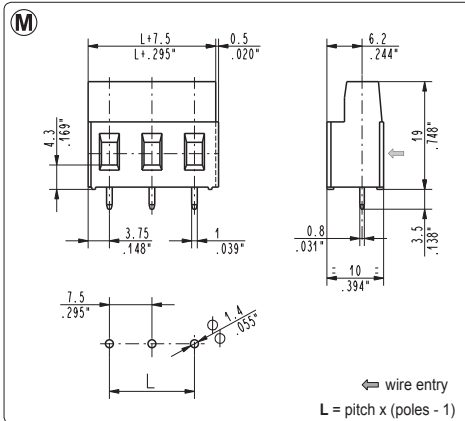
(M) Modular version, combinable 2 ÷ ∞ poles



**MSQ\_001-000T** straight, modular

**5 mm / .197" pitch**

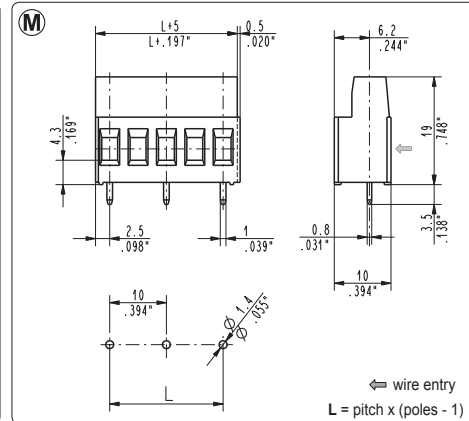
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSQ02001-000T	350	1,42	2000	8,12
03	MSQ03001-000T	225	1,37	1250	7,61
04	MSQ04001-000T	175	1,42	1000	8,12
05	MSQ05001-000T	125	1,27	750	7,61
06	MSQ06001-000T	125	1,52	750	9,14
07	MSQ07001-000T	100	1,42	500	7,11
08	MSQ08001-000T	75	1,22	500	8,12
09	MSQ09001-000T	75	1,37	500	9,14
10	MSQ10001-000T	75	1,52	500	10,15
11	MSQ11001-000T	75	1,67	250	5,58
12	MSQ12001-000T	50	1,22	250	6,09
13	MSQ13001-000T	50	1,32	250	6,60
14	MSQ14001-000T	50	1,42	250	7,11
15	MSQ15001-000T	50	1,52	250	7,61
16	MSQ16001-000T	50	1,62	250	8,12
17	MSQ17001-000T	50	1,73	200	6,90
18	MSQ18001-000T	50	1,83	200	7,31
19	MSQ19001-000T	25	0,96	200	7,71
20	MSQ20001-000T	25	1,02	200	8,12
21	MSQ21001-000T	25	1,07	200	8,53
22	MSQ22001-000T	25	1,12	200	8,93
23	MSQ23001-000T	25	1,17	200	9,34
24	MSQ24001-000T	25	1,22	150	7,31
25	MSQ25001-000T	25	1,27	150	7,61



**MSQ\_003-000T** straight, modular

**7.5 mm / .295" pitch**

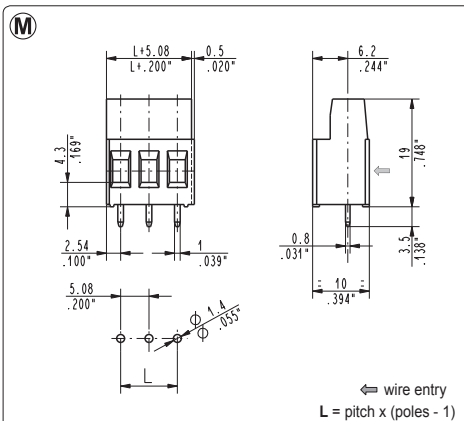
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSQ02003-000T	225	1,08	1250	6,00
03	MSQ03003-000T	150	1,08	750	5,40
04	MSQ04003-000T	100	0,96	500	4,80



**MSQ\_002-000T** straight, modular

**10 mm / .394" pitch**

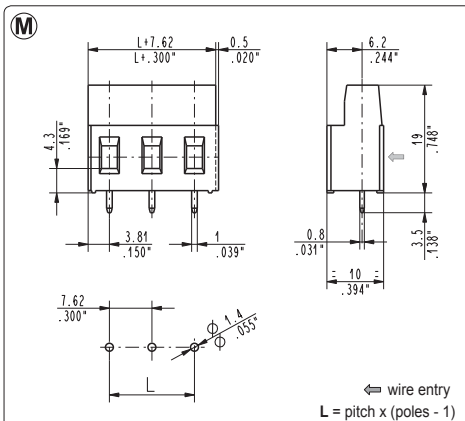
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MSQ01002-000T	350	0,82	2000	4,70
02	MSQ02002-000T	225	1,06	1250	5,88
03	MSQ03002-000T	125	0,88	750	5,29
04	MSQ04002-000T	100	0,94	500	4,70
05	MSQ05002-000T	75	0,88	500	5,88
06	MSQ06002-000T	75	1,06	500	7,05
07	MSQ07002-000T	50	0,82	250	4,11
08	MSQ08002-000T	50	0,94	250	4,70
09	MSQ09002-000T	50	1,06	250	5,29
10	MSQ10002-000T	25	0,59	250	5,88
11	MSQ11002-000T	25	0,65	250	6,46
12	MSQ12002-000T	25	0,71	250	7,05
13	MSQ13002-000T	25	0,76	250	7,64



**MSQ\_005-000T** straight, modular

**5.08 mm / .200" pitch**

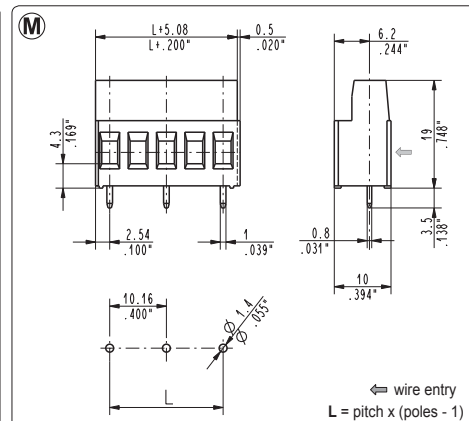
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSQ02005-000T	350	1,42	2000	8,12
03	MSQ03005-000T	225	1,37	1250	7,61
04	MSQ04005-000T	175	1,42	1000	8,12
05	MSQ05005-000T	125	1,27	750	7,61
06	MSQ06005-000T	125	1,52	750	9,14
07	MSQ07005-000T	100	1,42	500	7,11
08	MSQ08005-000T	75	1,22	500	8,12
09	MSQ09005-000T	75	1,37	500	9,14
10	MSQ10005-000T	75	1,52	500	10,15
11	MSQ11005-000T	75	1,67	250	5,58
12	MSQ12005-000T	50	1,22	250	6,09
13	MSQ13005-000T	50	1,32	250	6,60
14	MSQ14005-000T	50	1,42	250	7,11
15	MSQ15005-000T	50	1,52	250	7,61
16	MSQ16005-000T	50	1,62	250	8,12
17	MSQ17005-000T	50	1,73	200	6,90
18	MSQ18005-000T	50	1,83	200	7,31
19	MSQ19005-000T	25	0,96	200	7,71
20	MSQ20005-000T	25	1,02	200	8,12
21	MSQ21005-000T	25	1,07	200	8,53
22	MSQ22005-000T	25	1,12	200	8,93
23	MSQ23005-000T	25	1,17	200	9,34
24	MSQ24005-000T	25	1,22	150	7,31
25	MSQ25005-000T	25	1,27	150	7,61



**MSQ\_007-000T** straight, modular

**7.62 mm / .300" pitch**

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSQ02007-000T	225	1,08	1250	6,00
03	MSQ03007-000T	150	1,08	750	5,40



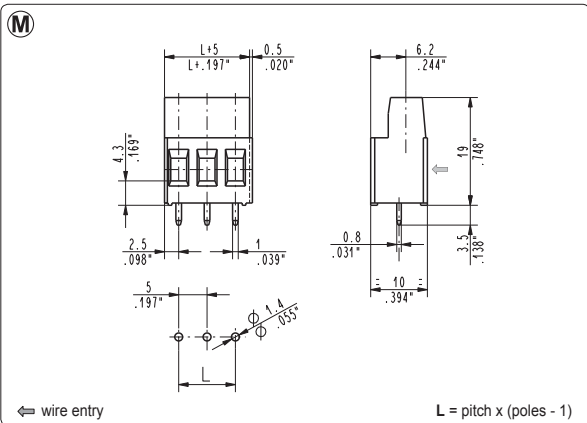
**MSQ\_006-000T** straight, modular

**10.16 mm / .400" pitch**

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MSQ01006-000T	350	0,82	2000	4,70
02	MSQ02006-000T	225	1,06	1250	5,88
03	MSQ03006-000T	125	0,88	750	5,29
04	MSQ04006-000T	100	0,94	500	4,70
05	MSQ05006-000T	75	0,88	500	5,88
06	MSQ06006-000T	75	1,06	500	7,05
07	MSQ07006-000T	50	0,82	250	4,11
08	MSQ08006-000T	50	0,94	250	4,70
09	MSQ09006-000T	50	1,06	250	5,29
10	MSQ10006-000T	25	0,59	250	5,88
11	MSQ11006-000T	25	0,65	250	6,46
12	MSQ12006-000T	25	0,71	250	7,05
13	MSQ13006-000T	25	0,76	250	7,64

\*W [kg]: approximate weight per box in kg

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

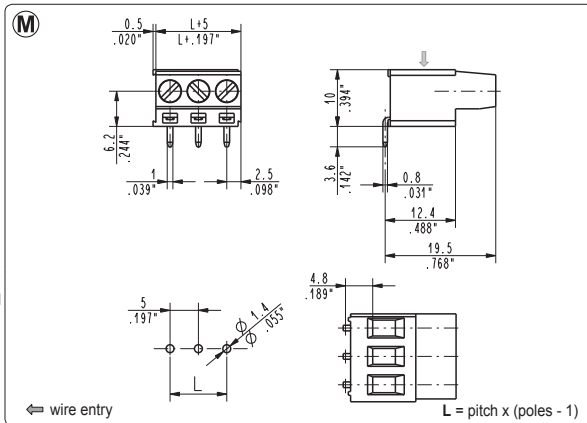


Short Circuited

**MSQ\_001-000C** straight, modular, short circuited

5 mm / .197" pitch

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSQ02001-000C	350	1,43	2000	8,16
03	MSQ03001-000C	225	1,38	1250	7,65

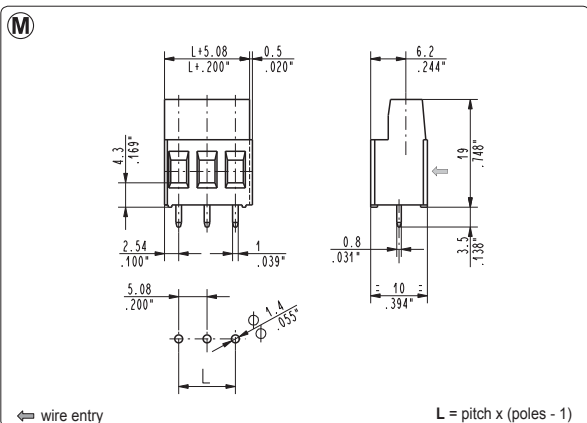


Short Circuited

**MSQ\_091-000C** straight, modular, short circuited

5 mm / .197" pitch

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSQ02091-000C	350	1,43	2000	8,16
03	MSQ03091-000C	225	1,38	1250	7,65

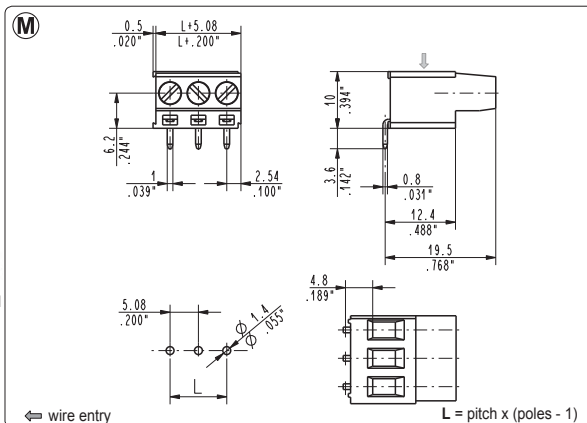


Short Circuited

**MSQ\_005-000C** straight, modular, short circuited

5.08 mm / .200" pitch

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSQ02005-000C	350	1,43	2000	8,16
03	MSQ03005-000C	225	1,38	1250	7,65



Short Circuited

**MSQ\_095-000C** straight, modular, short circuited

5.08 mm / .200" pitch

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSQ02095-000C	350	1,43	2000	8,16
03	MSQ03095-000C	225	1,38	1250	7,65