

MSG

Functional Characteristics



Dimensional Class:
Medium



Standard Colour:
Green



Height:
13.5 mm (.531 in)



Max Approved Wire sections:
Solid: 2.5 mm² (IMQ); 13 AWG (CSA)
Stranded: 1.5 mm² (IMQ); 13 AWG (CSA)

Clamp Opening Size:
2.5 x 2.2 mm (.098 x .087 in)



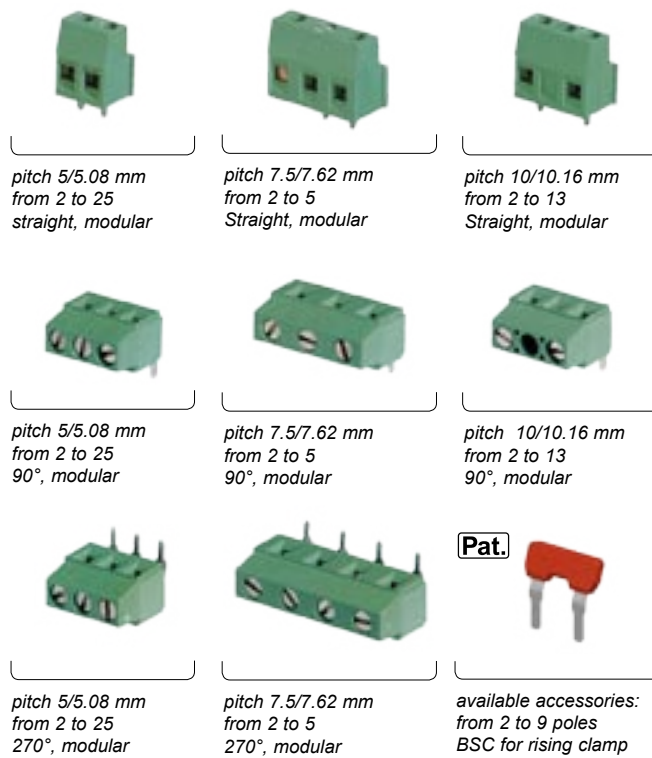
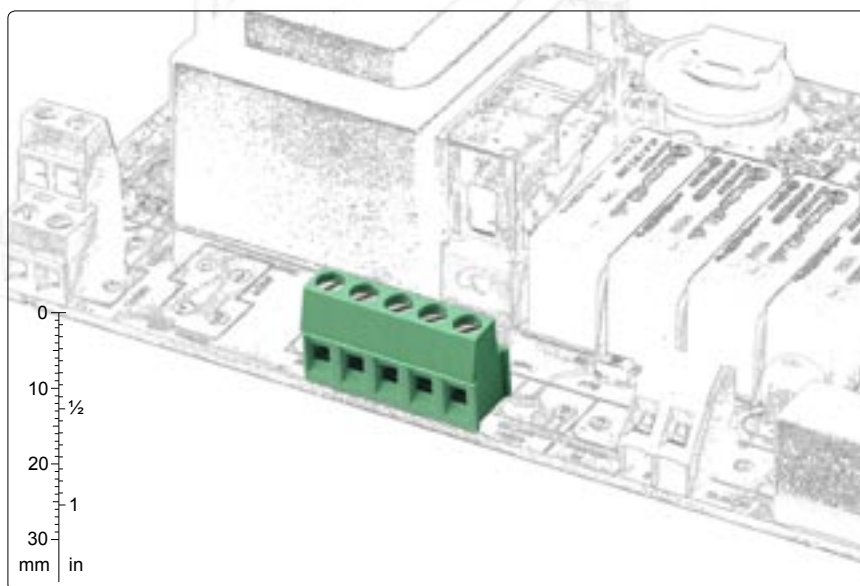
Versions:
Modular
Single Mould Poles:
from 2 to 25



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)



Brief Description

With the **MSG** modular series terminal blocks for PCBs, wires up to 2.5mm² (12 AWG) can be used and consequently a current range of 24A certified can be reached.

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.

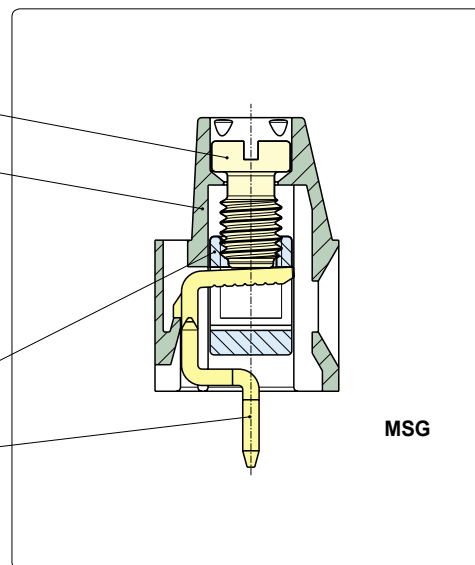
Standard Colour: GREEN.

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*

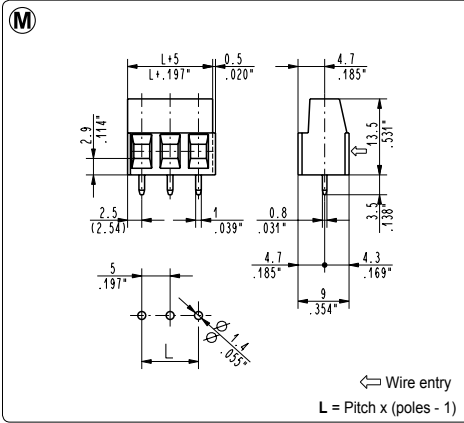
Solid wire section	30÷13 AWG (CSA)* 0.05 ÷ 2.5 mm ² (IMQ)*
Stranded wire section	30÷13 AWG (CSA)* 0.05 ÷ 1.5 mm ² (IMQ)*
Rated voltage for 5 mm (.197 in) and 5.08 mm (.200 in)	300 V (UL, CSA)*
Rated voltage for 7.5 mm (.295 in) and 7.62 mm (.300 in)	750 V (IMQ)*
Rated voltage for 10 mm (.394 in) and 10.16 mm (.400 in)	750 V (IMQ)*
Rated current	24 A (IMQ)*
Contact resistance	<15 mΩ
Insulation resistance	>10 ⁹ 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	CE:	250 V - T 110 - 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 - T 110 - 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
	UL:	300 V - 17.5 A (Factory Wiring), 15A (Field Wiring) - 30÷14 AWG for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
UL	File E 167473	600 V - 17.5 A (Factory Wiring), 15A (Field Wiring) - 30÷14 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:	300 V - 17.5 A - 30÷13 AWG for 5 mm, 5.08 mm pitch 450 V - 17.5 A - 30÷13 AWG for 7.5 mm, 7.62 mm pitch 600 V - 17.5 A - 30÷13 AWG for 10 mm and 10.16 mm pitch
VDE	File LR 102896	
	VDE:	250 V - 17.5 A - T 110 - 1.5 mm ² for 5 mm and 5.08 mm pitch 750 V - 17.5 A - T 110 - 1.5 mm ² for 7.5 mm and 7.62 mm pitch 750 V - 17.5 A - T 110 - 1.5 mm ² for 10 mm and 10.16 mm pitch
	Reg. N. 40001786	
IMQ	IMQ:	250 V - T 110 - 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 - T 110 - 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
	File: EI056	

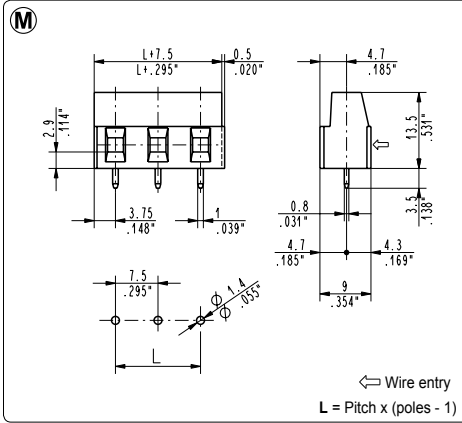
See also "Certifications of Products", page 14



MSG_001 Straight, Modular-Side Entry

5 mm / .197" Pitch Weight per pole: 1.25 g

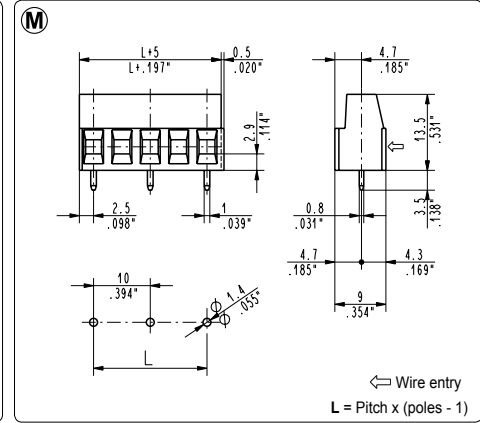
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSG02001	900	2,25	3000	7,50
03	MSG03001	600	2,25	2000	7,50
04	MSG04001	400	2,00	1250	6,25
05	MSG05001	350	2,19	1250	7,81
06	MSG06001	300	2,25	1000	7,50
07	MSG07001	250	2,19	750	6,56
08	MSG08001	200	2,00	500	5,00
09	MSG09001	175	1,97	500	5,63
10	MSG10001	175	2,19	500	6,25
11	MSG11001	150	2,06	500	6,88
12	MSG12001	150	2,25	500	7,50
13	MSG13001	75	1,22	500	8,13
14	MSG14001	75	1,31	500	8,75
15	MSG15001	75	1,41	250	4,69
16	MSG16001	75	1,50	250	5,00
17	MSG17001	75	1,59	250	5,31
18	MSG18001	75	1,69	250	5,63
19	MSG19001	50	1,19	250	5,94
20	MSG20001	50	1,25	250	6,25
21	MSG21001	50	1,31	250	6,56
22	MSG22001	50	1,38	250	6,88
23	MSG23001	50	1,44	250	7,19
24	MSG24001	50	1,50	250	7,50
25	MSG25001	50	1,56	250	7,81



MSG_003 Straight, Modular-Side Entry

7.5 mm / .295" Pitch Weight per pole: 1.45 g

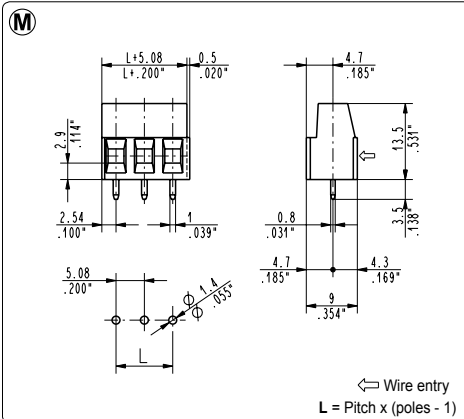
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSG02003	300	0,87	1750	5,08
03	MSG03003	200	0,87	1500	6,53
04	MSG04003	150	0,87	1250	7,25
05	MSG05003	100	0,73	750	5,44



MSG_002 Straight, Modular-Side Entry

10 mm / .394" Pitch Weight per pole: 1.48 g

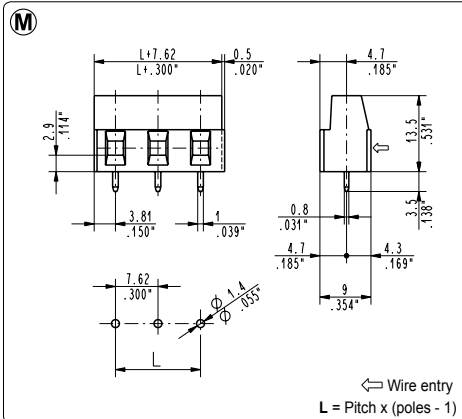
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MSG01002	300	0,44	3000	4,44
02	MSG02002	300	0,89	2000	5,92
03	MSG03002	175	0,78	1000	4,44
04	MSG04002	125	0,74	750	4,44
05	MSG05002	100	0,74	500	3,70
06	MSG06002	75	0,67	500	4,44
07	MSG07002	75	0,78	500	5,18
08	MSG08002	75	0,89	500	5,92
09	MSG09002	75	1,00	250	3,33
10	MSG10002	50	0,74	250	3,70
11	MSG11002	50	0,81	250	4,07
12	MSG12002	50	0,89	250	4,44
13	MSG13002	50	0,96	250	4,81



MSG_005 Straight, Modular-Side Entry

5.08 mm / .200" Pitch Weight per pole: 1.25 g

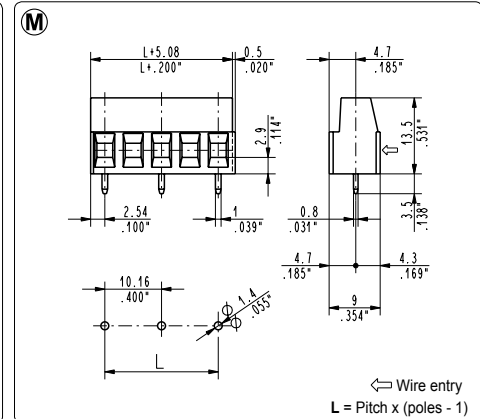
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSG02005	900	2,25	3000	7,50
03	MSG03005	600	2,25	2000	7,50
04	MSG04005	400	2,00	1250	6,25
05	MSG05005	350	2,19	1250	7,81
06	MSG06005	300	2,25	1000	7,50
07	MSG07005	250	2,19	750	6,56
08	MSG08005	200	2,00	500	5,00
09	MSG09005	175	1,97	500	5,63
10	MSG10005	175	2,19	500	6,25
11	MSG11005	150	2,06	500	6,88
12	MSG12005	150	2,25	500	7,50
13	MSG13005	75	1,22	500	8,13
14	MSG14005	75	1,31	500	8,75
15	MSG15005	75	1,41	250	4,69
16	MSG16005	75	1,50	250	5,00
17	MSG17005	75	1,59	250	5,31
18	MSG18005	75	1,69	250	5,63
19	MSG19005	50	1,19	250	5,94
20	MSG20005	50	1,25	250	6,25
21	MSG21005	50	1,31	250	6,56
22	MSG22005	50	1,38	250	6,88
23	MSG23005	50	1,44	250	7,19
24	MSG24005	50	1,50	250	7,50
25	MSG25005	50	1,56	250	7,81



MSG_007 Straight, Modular-Side Entry

7.62 mm / .300" Pitch Weight per pole: 1.45 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSG02007	300	0,87	1750	5,08
03	MSG03007	200	0,87	1500	6,53



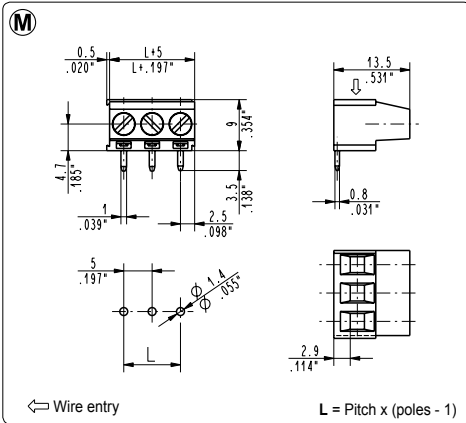
MSG_006 Straight, Modular-Side Entry

10.16 mm / .400" Pitch Weight per pole: 1.48 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MSG01006	300	0,44	3000	4,44
02	MSG02006	300	0,89	2000	5,92
03	MSG03006	175	0,78	1000	4,44
04	MSG04006	125	0,74	750	4,44
05	MSG05006	100	0,74	500	3,70
06	MSG06006	75	0,67	500	4,44
07	MSG07006	75	0,78	500	5,18
08	MSG08006	75	0,89	500	5,92
09	MSG09006	75	1,00	250	3,33
10	MSG10006	50	0,74	250	3,70
11	MSG11006	50	0,81	250	4,07
12	MSG12006	50	0,89	250	4,44
13	MSG13006	50	0,96	250	4,81

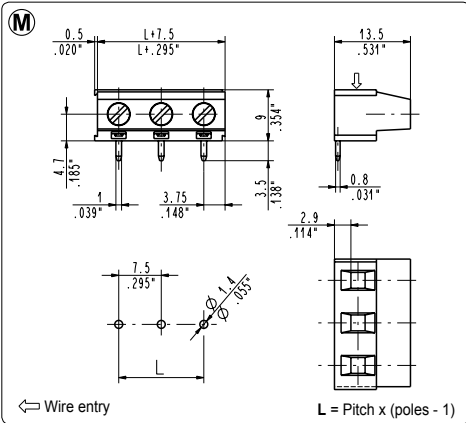
*W [kg]: Approximate Weight per box in kg

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



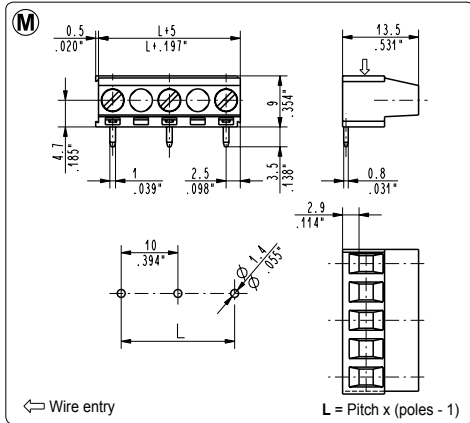
MSG_091 90° Modular, Top Entry

5 mm / .197" Pitch		Weight per pole: 1.32 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSG02091	900	2,38	3000	7,92
03	MSG03091	600	2,38	2000	7,92
04	MSG04091	400	2,11	1250	6,60
05	MSG05091	350	2,31	1250	8,25
06	MSG06091	300	2,38	1000	7,92
07	MSG07091	250	2,31	750	6,93
08	MSG08091	200	2,11	500	5,28
09	MSG09091	175	2,08	500	5,94
10	MSG10091	175	2,31	500	6,60
11	MSG11091	150	2,18	500	7,26
12	MSG12091	150	2,38	500	7,92
13	MSG13091	75	1,29	500	8,58
14	MSG14091	75	1,39	500	9,24
15	MSG15091	75	1,49	250	4,95
16	MSG16091	75	1,58	250	5,28
17	MSG17091	75	1,68	250	5,61
18	MSG18091	75	1,78	250	5,94
19	MSG19091	50	1,25	250	6,27
20	MSG20091	50	1,32	250	6,60
21	MSG21091	50	1,39	250	6,93
22	MSG22091	50	1,45	250	7,26
23	MSG23091	50	1,52	250	7,59
24	MSG24091	50	1,58	250	7,92
25	MSG25091	50	1,65	250	8,25



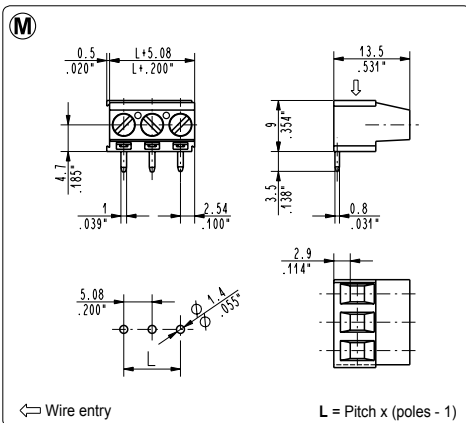
MSG_093 90° Modular, Top Entry

7.5 mm / .295" Pitch		Weight per pole: 1.50 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSG02093	300	0,90	1750	5,25
03	MSG03093	200	0,90	1500	6,75
04	MSG04093	150	0,90	1250	7,50
05	MSG05093	100	0,75	750	5,63



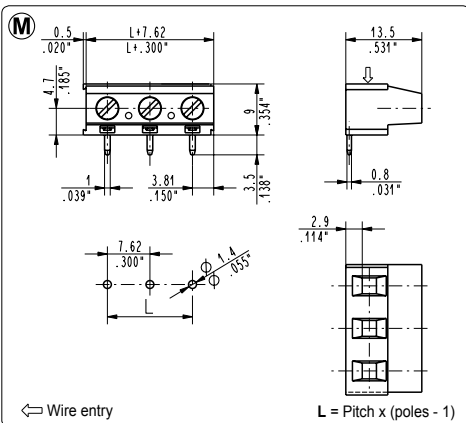
MSG_092 90° Modular, Top Entry

10 mm / .394" Pitch		Weight per pole: 1.52 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MSG01092	300	0,46	3000	4,56
02	MSG02092	300	0,91	2000	6,08
03	MSG03092	175	0,80	1000	4,56
04	MSG04092	125	0,76	750	4,56
05	MSG05092	100	0,76	500	3,80
06	MSG06092	75	0,68	500	4,56
07	MSG07092	75	0,80	500	5,32
08	MSG08092	75	0,91	500	6,08
09	MSG09092	75	1,03	250	3,42
10	MSG10092	50	0,76	250	3,80
11	MSG11092	50	0,84	250	4,18
12	MSG12092	50	0,91	250	4,56
13	MSG13092	50	0,99	250	4,94



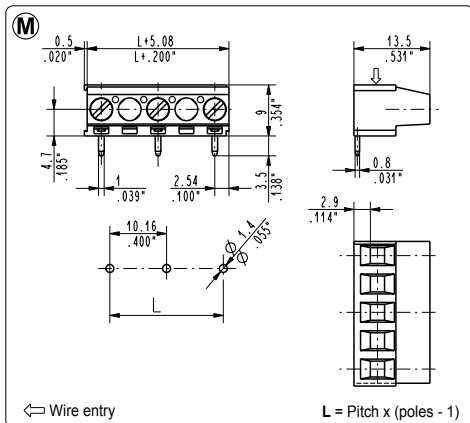
MSG_095 90° Modular, Top Entry

5.08 mm / .200" Pitch		Weight per pole: 1.32 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSG02095	900	2,38	3000	7,92
03	MSG03095	600	2,38	2000	7,92
04	MSG04095	400	2,11	1250	6,60
05	MSG05095	350	2,31	1250	8,25
06	MSG06095	300	2,38	1000	7,92
07	MSG07095	250	2,31	750	6,93
08	MSG08095	200	2,11	500	5,28
09	MSG09095	175	2,08	500	5,94
10	MSG10095	175	2,31	500	6,60
11	MSG11095	150	2,18	500	7,26
12	MSG12095	150	2,38	500	7,92
13	MSG13095	75	1,29	500	8,58
14	MSG14095	75	1,39	500	9,24
15	MSG15095	75	1,49	250	4,95
16	MSG16095	75	1,58	250	5,28
17	MSG17095	75	1,68	250	5,61
18	MSG18095	75	1,78	250	5,94
19	MSG19095	50	1,25	250	6,27
20	MSG20095	50	1,32	250	6,60
21	MSG21095	50	1,39	250	6,93
22	MSG22095	50	1,45	250	7,26
23	MSG23095	50	1,52	250	7,59
24	MSG24095	50	1,58	250	7,92
25	MSG25095	50	1,65	250	8,25



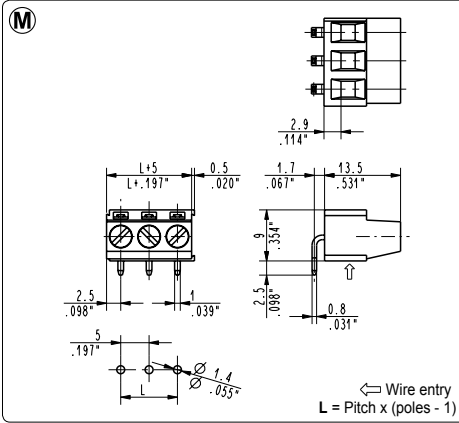
MSG_097 90° Modular, Top Entry

7.62 mm / .300" Pitch		Weight per pole: 1.50 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSG02097	300	0,90	1750	5,25
03	MSG03097	200	0,90	1500	6,75



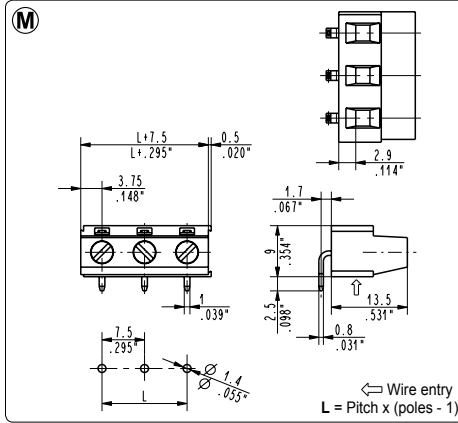
MSG_096 90° Modular, Top Entry

10.16 mm / .400" Pitch		Weight per pole: 1.52 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MSG01096	300	0,46	3000	4,56
02	MSG02096	300	0,91	2000	6,08
03	MSG03096	175	0,80	1000	4,56
04	MSG04096	125	0,76	750	4,56
05	MSG05096	100	0,76	500	3,80
06	MSG06096	75	0,68	500	4,56
07	MSG07096	75	0,80	500	5,32
08	MSG08096	75	0,91	500	6,08
09	MSG09096	75	1,03	250	3,42
10	MSG10096	50	0,76	250	3,80
11	MSG11096	50	0,84	250	4,18
12	MSG12096	50	0,91	250	4,56
13	MSG13096	50	0,99	250	4,94



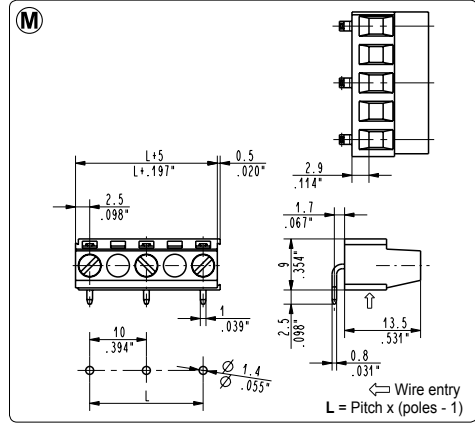
MSG_051 270° Modular, Bottom Entry

5 mm / .197" Pitch		Weight per pole: 1.32 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSG02051	900	2,38	3000	7,92
03	MSG03051	600	2,38	2000	7,92
04	MSG04051	400	2,11	1250	6,60
05	MSG05051	350	2,31	1250	8,25
06	MSG06051	300	2,38	1000	7,92
07	MSG07051	250	2,31	750	6,93
08	MSG08051	200	2,11	500	5,28
09	MSG09051	175	2,08	500	5,94
10	MSG10051	175	2,31	500	6,60
11	MSG11051	150	2,18	500	7,26
12	MSG12051	150	2,38	500	7,92
13	MSG13051	75	1,29	500	8,58
14	MSG14051	75	1,39	500	9,24
15	MSG15051	75	1,49	250	4,95
16	MSG16051	75	1,58	250	5,28
17	MSG17051	75	1,68	250	5,61
18	MSG18051	75	1,78	250	5,94
19	MSG19051	50	1,25	250	6,27
20	MSG20051	50	1,32	250	6,60
21	MSG21051	50	1,39	250	6,93
22	MSG22051	50	1,45	250	7,26
23	MSG23051	50	1,52	250	7,59
24	MSG24051	50	1,58	250	7,92
25	MSG25051	50	1,65	250	8,25



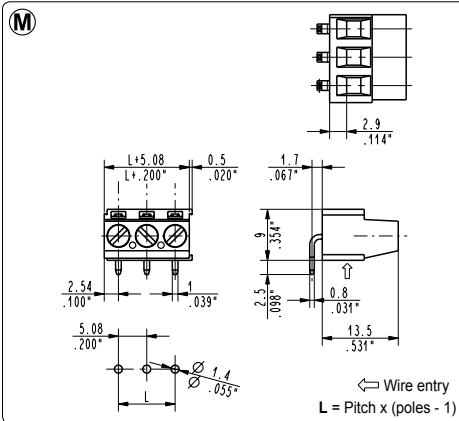
MSG_053 270° Modular, Bottom Entry

7.5 mm / .295" Pitch		Weight per pole: 1.50 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSG02053	300	0,90	1750	5,25
03	MSG03053	200	0,90	1500	6,75
04	MSG04053	150	0,90	1250	7,50
05	MSG05053	100	0,75	750	5,63



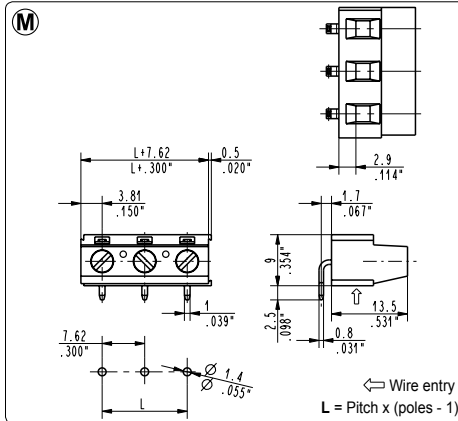
MSG_052 270° Modular, Bottom Entry

10 mm / .394" Pitch		Weight per pole: 1.52 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MSG01052	300	0,46	3000	4,56
02	MSG02052	300	0,91	2000	6,08
03	MSG03052	175	0,80	1000	4,56
04	MSG04052	125	0,76	750	4,56
05	MSG05052	100	0,76	500	3,80
06	MSG06052	75	0,68	500	4,56
07	MSG07052	75	0,80	500	5,32
08	MSG08052	75	0,91	500	6,08
09	MSG09052	75	1,03	250	3,42
10	MSG10052	50	0,76	250	3,80
11	MSG11052	50	0,84	250	4,18
12	MSG12052	50	0,91	250	4,56
13	MSG13052	50	0,99	250	4,94



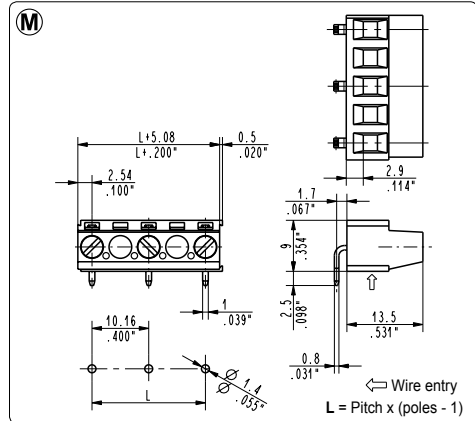
MSG_055 270° Modular, Bottom Entry

5.08 mm / .200" Pitch		Weight per pole: 1.32 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSG02055	900	2,38	3000	7,92
03	MSG03055	600	2,38	2000	7,92
04	MSG04055	400	2,11	1250	6,60
05	MSG05055	350	2,31	1250	8,25
06	MSG06055	300	2,38	1000	7,92
07	MSG07055	250	2,31	750	6,93
08	MSG08055	200	2,11	500	5,28
09	MSG09055	175	2,08	500	5,94
10	MSG10055	175	2,31	500	6,60
11	MSG11055	150	2,18	500	7,26
12	MSG12055	150	2,38	500	7,92
13	MSG13055	75	1,29	500	8,58
14	MSG14055	75	1,39	500	9,24
15	MSG15055	75	1,49	250	4,95
16	MSG16055	75	1,58	250	5,28
17	MSG17055	75	1,68	250	5,61
18	MSG18055	75	1,78	250	5,94
19	MSG19055	50	1,25	250	6,27
20	MSG20055	50	1,32	250	6,60
21	MSG21055	50	1,39	250	6,93
22	MSG22055	50	1,45	250	7,26
23	MSG23055	50	1,52	250	7,59
24	MSG24055	50	1,58	250	7,92
25	MSG25055	50	1,65	250	8,25



MSG_057 270° Modular, Bottom Entry

7.62 mm / .300" Pitch		Weight per pole: 1.50 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSG02057	300	0,90	1750	5,25
03	MSG03057	200	0,90	1500	6,75

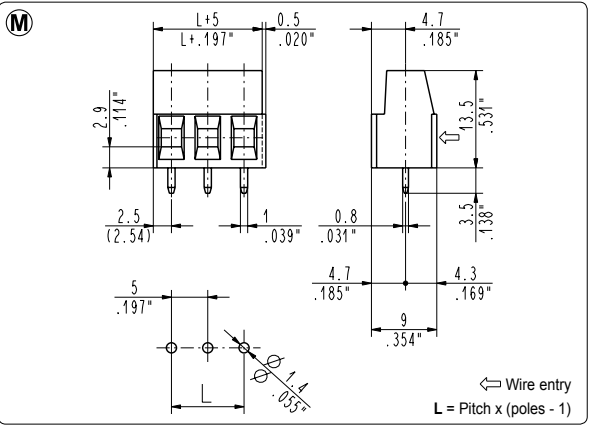


MSG_056 270° Modular, Bottom Entry

10.16 mm / .400" Pitch		Weight per pole: 1.52 g			
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MSG01056	300	0,46	3000	4,56
02	MSG02056	300	0,91	2000	6,08
03	MSG03056	175	0,80	1000	4,56
04	MSG04056	125	0,76	750	4,56
05	MSG05056	100	0,76	500	3,80
06	MSG06056	75	0,68	500	4,56
07	MSG07056	75	0,80	500	5,32
08	MSG08056	75	0,91	500	6,08
09	MSG09056	75	1,03	250	3,42
10	MSG10056	50	0,76	250	3,80
11	MSG11056	50	0,84	250	4,18
12	MSG12056	50	0,91	250	4,56
13	MSG13056	50	0,99	250	4,94

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

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

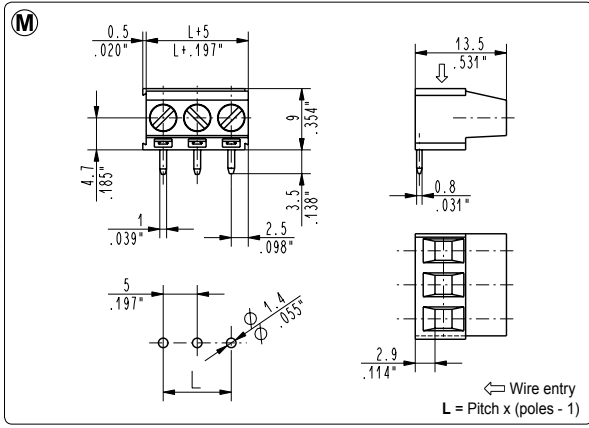


Short Circuited

MSG_001-000C Short Circuited Straight, Side Entry

5 mm / .197" Pitch Weight per pole: 1.25 g

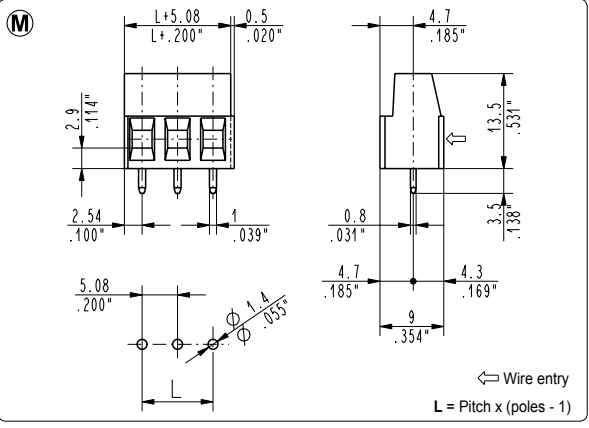
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSG02001-000C	900	2,25	3000	7,50
03	MSG03001-000C	600	2,25	2000	7,50



MSG_091-000C Short Circuited 90°, Top Entry

5 mm / .197" Pitch Weight per pole: 1.26 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSG02091-000C	900	2,27	3000	7,56
03	MSG03091-000C	600	2,27	2000	7,56

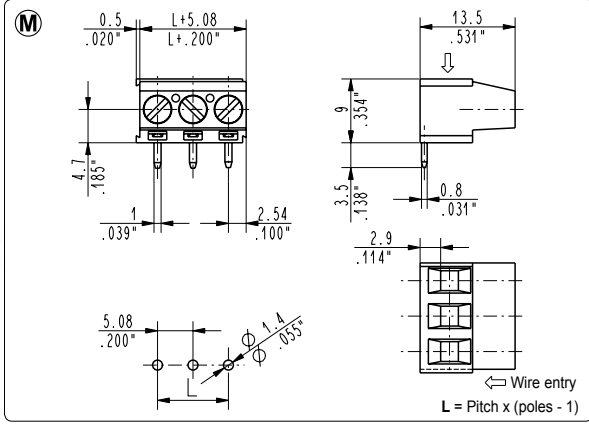


Short Circuited

MSG_005-000C Short Circuited Straight, Side Entry

5.08 mm / .200" Pitch Weight per pole: 1.25 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSG02005-000C	900	2,25	3000	7,50
03	MSG03005-000C	600	2,25	2000	7,50



MSG_095-000C Short Circuited 90°, Top Entry

5.08 mm / .200" Pitch Weight per pole: 1.26 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MSG02095-000C	900	2,27	3000	7,56
03	MSG03095-000C	600	2,27	2000	7,56