

CGM

Functional characteristics



Dimensional class:
Medium



Standard colour:
green



Dimensions:
19.3 x 15 mm (.760 x .591 in)



Max approved wire size:
solid: 2.5 mm² (VDE); 12 AWG
stranded: 2.5 mm² (VDE); 12 AWG
Clamp Opening Size:
2.5 x 2.4 mm (.098 x .094 in)



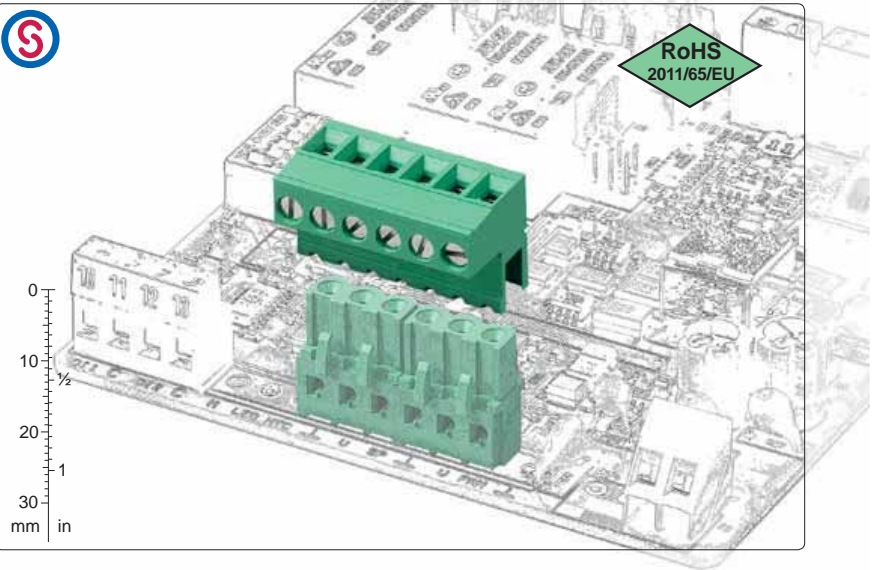
Versions:
modular,
side stackable
polarized,



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 3 poles
modular



pitch 7.5/7.62 mm
from 2 to 3 poles
modular



pitch 10/10.16 mm
from 2 to 3 poles
modular



from 2 to 9 poles
BSC for rising clamp



example of use of
CIM-SC1



CIM-SC1
coding splines

Brief description

The **CGM** series is composed of **male contacts with screw connection** and it has been designed so that the female contacts to be soldered, which could be electrically powered, are inaccessible. By using male and female connectors to be soldered on the same board, the inputs (male) can be clearly seen from the outputs (female).

The **CGM** is available in 5 mm (.197 in), 7.5 mm (.295 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 blocks from 2 to 3 poles, in polarized or modular versions.

The **CGM** male connector series with screw connection is characterized by an asymmetric profile, so mistakes are prevented when connections are made with the relative female **CGF** soldered onto the board. By taking advantage of its compatibility with the **CIF** and **CVF** female connectors, it is possible to have wire to wire connections.

Further safety when connecting can be obtained by using the **CIF-LC1** and **CIM-SCI** Coding Splines and Coding Clips (see page 20-21) or **COF-SP1** Polarization Pegs (see page 18-19).

It is possible to side-stack or assemble the basic modular connectors in order to obtain any number of poles without losing the pitch. By taking advantage of this particular characteristic a minimum stock of basic connectors 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.

Nickel-plated copper alloy rising clamp.

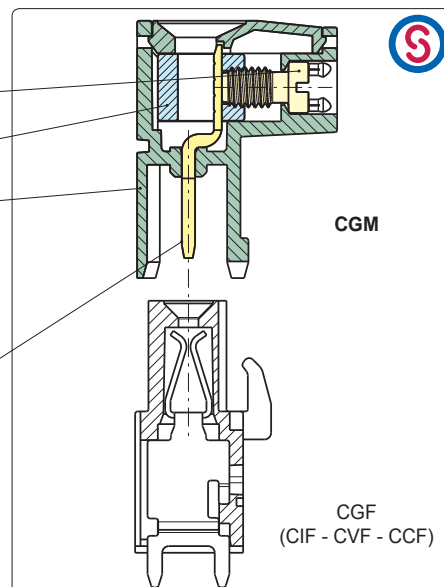
Polyamide housing.

Standard colour: GREEN.

V0 self-extinguishing according to UL 94.

Chlorinated solvents resistant,
with no phosphor, dioxin or detrimental to health halogens.
Material Group I (CTI ≥ 600 V)

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



Mechanical characteristics

Insertion force per pole	max 3 N (.674 lbf)
Withdrawal force per pole	min 1,5 N (.337 lbf)
Recommended/Highest tightening torque	0,5/0,6 Nm (4.42/5.3 lbf·in)
Stripping length	6 \pm 7.5 mm (.24 \pm .30 in)
Operating temperature range	-40 °C \pm +110 °C (-40 °F \pm +230 °F)
Climatic category	40/110/21 According to EN 60068-1

Electric characteristics*

Solid wire section	0.05 \pm 2.5 mm ² (IMQ)* 30 \pm 12 AWG (UL)*
Stranded wire section	0.05 \pm 2.5 mm ² (IMQ)* 30 \pm 12 AWG (UL)*
Rated voltage for 5 mm (.197 in) and 5.08 mm (.200 in) pitch	320 V (IMQ)*
Rated voltage for 7.5 mm (.295 in) and 7.62 mm (.300 in) pitch	500 V (IMQ)*
Rated voltage for 10 mm (.394 in) and 10.16 mm (.400 in) pitch	800 V (IMQ)*
Rated current	16 A (VDE)*
Contact resistance	<15 m Ω
Insulation resistance	>10 ⁹ Ω (500V DC)

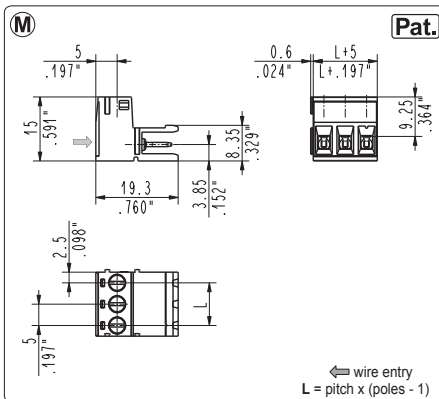
*All the a.m. data refer to the highest values amongst the certificated ones.

V voltage, I current values and tightening torque are related to the norms to be applied to the product and to its use.

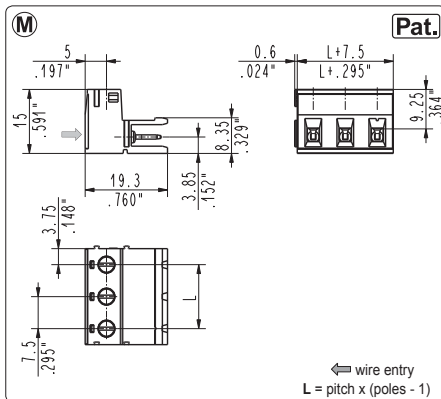
Approvals

IEC-EN	IEC:	for 5 mm and 5.08 mm pitch:	200 V - 16 A - 2.5 mm ² - T110 - 4kV - 3 / 320 V - 16 A - 2.5 mm ² - T110 - 4kV - 2
	EN 61984	for 7.5 mm and 7.62 mm pitch:	320 V - 16 A - 2.5 mm ² - T110 - 6kV - 3 / 500 V - 16 A - 2.5 mm ² - T110 - 6kV - 2
		for 10 mm and 10.16 mm pitch:	500 V - 16 A - 2.5 mm ² - T110 - 8kV - 3 / 800 V - 16 A - 2.5 mm ² - T110 - 8kV - 2
UL	UL:	300 V - 15 A - 30 \pm 12 AWG - 7 lbf·in or 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch	
	File E167473	600 V - 15 A - 30 \pm 12 AWG - 7 lbf·in or 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:	for 5 mm and 5.08 mm pitch:	250 V - 16 A - 2.5 mm ² - T110 - 2,5kV - 2
	File n. 40027448	for 7.5 mm and 7.62 mm pitch:	500 V - 16 A - 2.5 mm ² - T110 - 4kV - 2
		for 10 mm and 10.16 mm pitch:	750 V - 16 A - 2.5 mm ² - T110 - 6kV - 2
IMQ	IMQ:	for 5 mm and 5.08 mm pitch:	200 V - 12 A - 2.5 mm ² - T110 - 4kV - 3 / 320 V - 12 A - 2.5 mm ² - T110 - 4kV - 2
	File n. EM672	for 7.5 mm and 7.62 mm pitch:	320 V - 12 A - 2.5 mm ² - T110 - 6kV - 3 / 500 V - 12 A - 2.5 mm ² - T110 - 6kV - 2
		for 10 mm and 10.16 mm pitch:	500 V - 12 A - 2.5 mm ² - T110 - 8kV - 3 / 800 V - 12 A - 2.5 mm ² - T110 - 8kV - 2

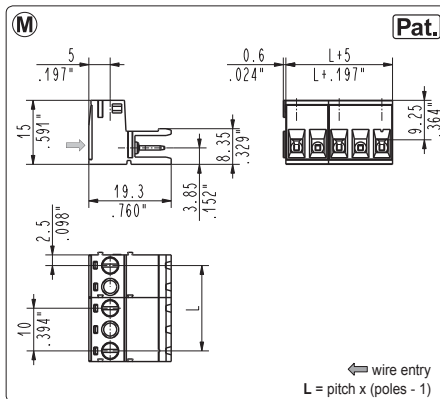
See also "Certifications", page 8



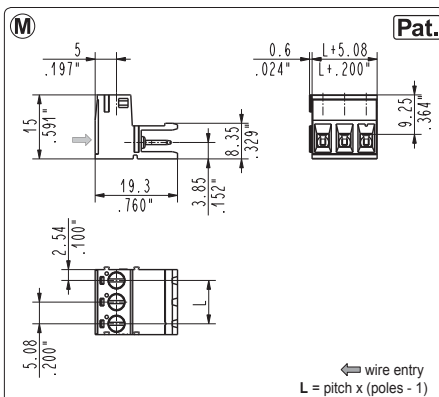
CGM_0M1		modular male			
5 mm / .197" pitch		Poles	Code	Pcs/pack. W [kg]*	Pcs/Ind.** W [kg]*
02	CGM020M1	500	1,80	1500	5,40
03	CGM030M1	400	2,16	1000	5,40
04	CGM040M1	300	2,16	750	5,40
05	CGM050M1	250	2,25	750	6,75
06	CGM060M1	200	2,16	500	5,40
07	CGM070M1	175	2,21	500	6,30
08	CGM080M1	150	2,16	500	7,20
09	CGM090M1	125	2,03	250	4,05
10	CGM100M1	100	1,80	250	4,50
11	CGM110M1	100	1,98	250	4,95
12	CGM120M1	75	1,62	250	5,40
13	CGM130M1	75	1,75	250	5,85
14	CGM140M1	75	1,89	250	6,30
15	CGM150M1	75	2,02	250	6,75
16	CGM160M1	75	2,16	250	7,20
17	CGM170M1	50	1,53	250	7,65
18	CGM180M1	50	1,62	250	8,10



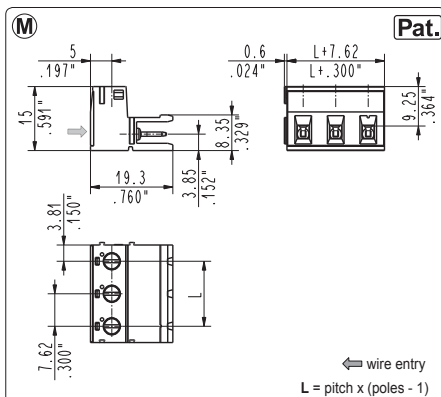
CGM_0M3		modular male			
7.5 mm / .295" pitch		Poles	Code	Pcs/pack. W [kg]*	Pcs/Ind.** W [kg]*
02	CGM020M3	400	1,68	1000	4,20
03	CGM030M3	250	1,58	750	4,73



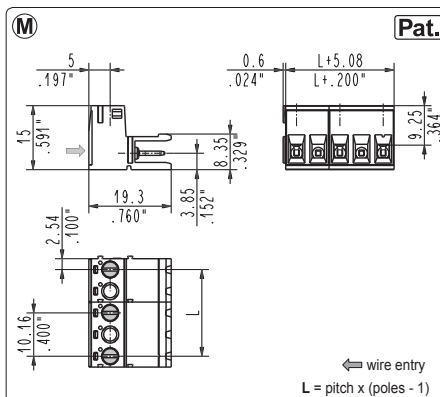
CGM_0M2		modular male			
10 mm / .394" pitch		Poles	Code	Pcs/pack. W [kg]*	Pcs/Ind.** W [kg]*
01	CGM010M2	500	0,53	1500	1,59
02	CGM020M2	400	0,85	1000	2,12
03	CGM030M2	250	0,80	750	2,39
04	CGM040M2	175	0,74	500	2,12
05	CGM050M2	125	0,66	250	1,33
06	CGM060M2	100	0,64	250	1,59
07	CGM070M2	75	0,55	250	1,85
08	CGM080M2	75	0,96	250	3,20
09	CGM090M2	50	0,72	250	3,60



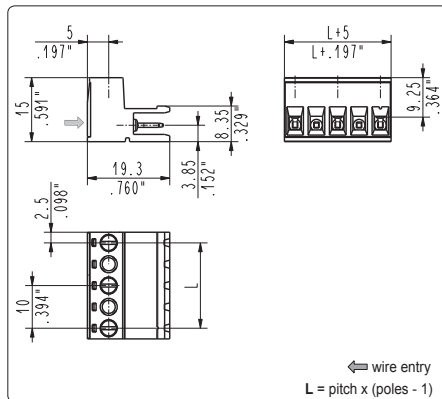
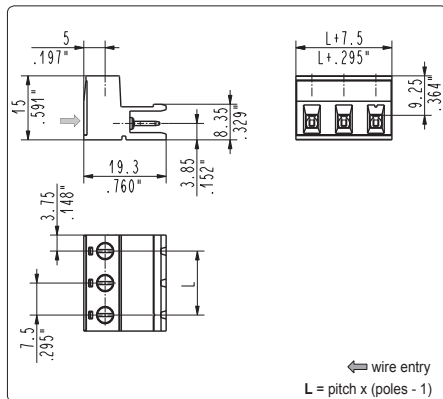
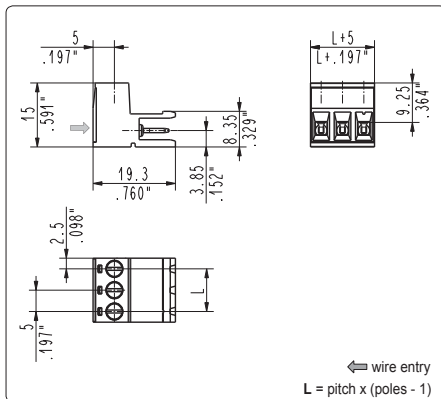
CGM_0M5		modular male			
5.08 mm / .200" pitch		Poles	Code	Pcs/pack. W [kg]*	Pcs/Ind.** W [kg]*
02	CGM020M5	500	1,80	1500	5,40
03	CGM030M5	400	2,16	1000	5,40



CGM_0M7		modular male			
7.62 mm / .300" pitch		Poles	Code	Pcs/pack. W [kg]*	Pcs/Ind.** W [kg]*
02	CGM020M7	400	1,68	1000	4,20
03	CGM030M7	250	1,58	750	4,73



CGM_0M6		modular male			
10.16 mm / .400" pitch		Poles	Code	Pcs/pack. W [kg]*	Pcs/Ind.** W [kg]*
01	CGM010M6	500	0,53	1500	1,59
02	CGM020M6	400	0,85	1000	2,12


CGM_0A1 side stackable male

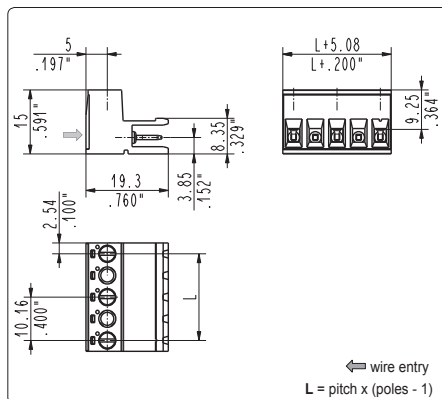
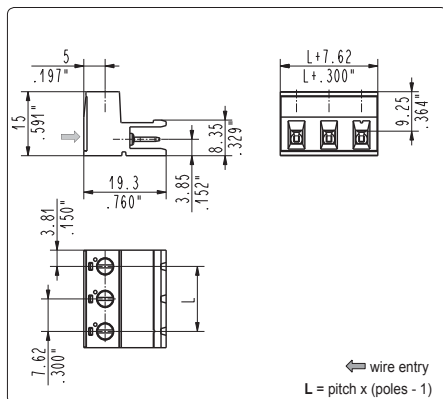
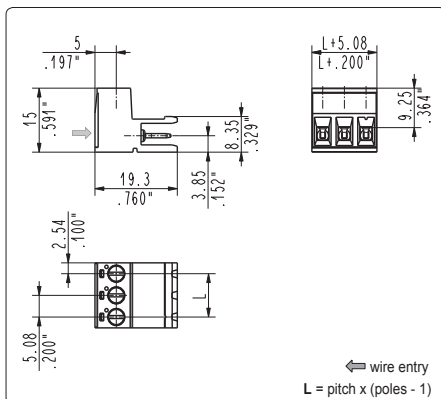
5 mm / .197" pitch		Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CGM020A1	500	1,80	1500	5,40		
03	CGM030A1	400	2,16	1000	5,40		
04	CGM040A1	300	2,16	750	5,40		
05	CGM050A1	250	2,25	750	6,75		
06	CGM060A1	200	2,16	500	5,40		
07	CGM070A1	175	2,21	500	6,30		
08	CGM080A1	150	2,16	500	7,20		
09	CGM090A1	125	2,03	250	4,05		
10	CGM100A1	100	1,80	250	4,50		
11	CGM110A1	100	1,98	250	4,95		
12	CGM120A1	75	1,62	250	5,40		
13	CGM130A1	75	1,75	250	5,85		
14	CGM140A1	75	1,89	250	6,30		
15	CGM150A1	75	2,02	250	6,75		
16	CGM160A1	75	2,16	250	7,20		
17	CGM170A1	50	1,53	250	7,65		
18	CGM180A1	50	1,62	250	8,10		

CGM_0A3 side stackable male

7.5 mm / .295" pitch		Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CGM020A3	400	1,68	1000	4,20		
03	CGM030A3	250	1,58	750	4,73		

CGM_0A2 side stackable male

10 mm / .394" pitch		Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CGM020A2	400	0,85	1000	2,12		
03	CGM030A2	250	0,80	750	2,39		
04	CGM040A2	175	0,74	500	2,12		
05	CGM050A2	125	0,66	250	1,33		
06	CGM060A2	100	0,64	250	1,59		
07	CGM070A2	75	0,55	250	1,85		
08	CGM080A2	75	0,96	250	3,20		
09	CGM090A2	50	0,72	250	3,60		


CGM_0A5 side stackable male

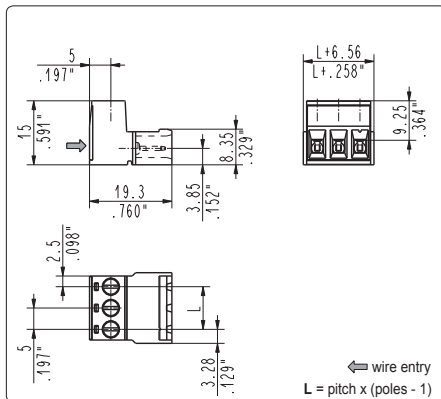
5.08 mm / .200" pitch		Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CGM020A5	500	1,80	1500	5,40		
03	CGM030A5	400	2,16	1000	5,40		
04	CGM040A5	300	2,16	750	5,40		
05	CGM050A5	250	2,25	750	6,75		
06	CGM060A5	200	2,16	500	5,40		
07	CGM070A5	175	2,21	500	6,30		
08	CGM080A5	150	2,16	500	7,20		

CGM_0A7 side stackable male

7.62 mm / .300" pitch		Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CGM020A7	400	1,68	1000	4,20		
03	CGM030A7	250	1,58	750	4,73		

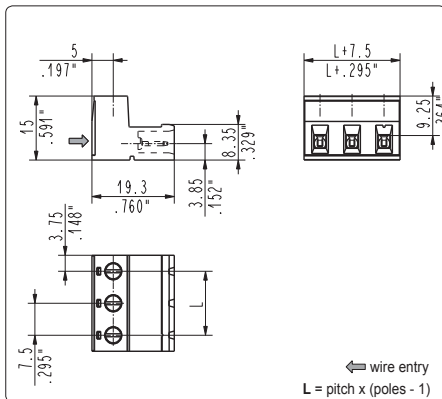
CGM_0A6 side stackable male

10.16 mm / .400" pitch		Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CGM020A6	400	0,85	1000	2,12		
03	CGM030A6	250	0,80	750	2,39		
04	CGM040A6	175	0,74	500	2,12		



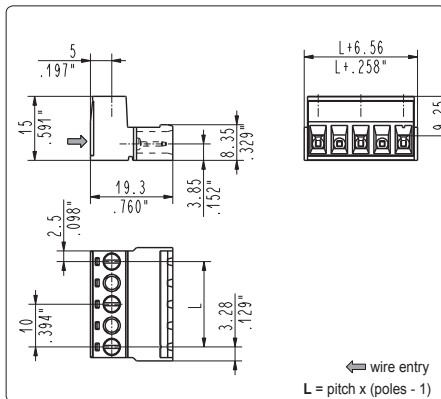
CGM_0P1 polarized male

5 mm / .197" pitch					
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CGM020P1	500	1,90	1500	5,70
03	CGM030P1	400	2,28	1000	5,70
04	CGM040P1	300	2,28	750	5,70
05	CGM050P1	250	2,38	750	7,13
06	CGM060P1	200	2,28	500	5,70
07	CGM070P1	175	2,33	500	6,65
08	CGM080P1	150	2,28	500	7,60
09	CGM090P1	125	2,14	250	4,28
10	CGM100P1	100	1,90	250	4,75
11	CGM110P1	100	2,09	250	5,23
12	CGM120P1	75	1,71	250	5,70
13	CGM130P1	75	1,85	250	6,18
14	CGM140P1	75	1,99	250	6,65
15	CGM150P1	75	2,14	250	7,13
16	CGM160P1	75	2,28	250	7,60
17	CGM170P1	50	1,62	250	8,08
18	CGM180P1	50	1,71	250	8,55
19	CGM190P1	50	1,81	125	4,51
20	CGM200P1	50	1,90	125	4,75
21	CGM210P1	50	1,99	125	4,99
22	CGM220P1	50	2,09	125	5,23
23	CGM230P1	50	2,19	125	5,46
24	CGM240P1	50	2,28	125	5,70
25	CGM250P1	50	2,38	125	5,94



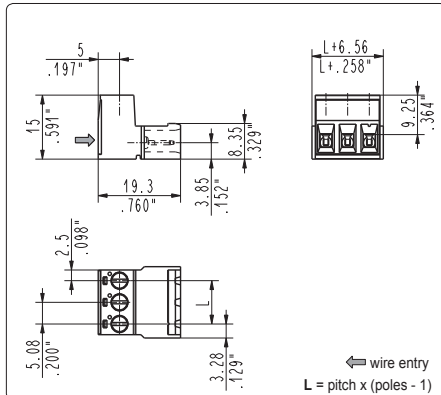
CGM_0P3 polarized male

7.5 mm / .295" pitch					
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CGM020P3	400	1,76	1000	4,40
03	CGM030P3	250	1,65	750	4,95
04	CGM040P3	200	1,76	500	4,40
05	CGM050P3	150	1,65	500	5,50
06	CGM060P3	125	1,65	250	3,30
07	CGM070P3	100	1,54	250	3,85
08	CGM080P3	75	1,32	250	4,40
09	CGM090P3	75	1,49	250	4,95
10	CGM100P3	75	1,65	250	5,50
11	CGM110P3	50	1,21	250	6,05
12	CGM120P3	50	1,32	250	6,60



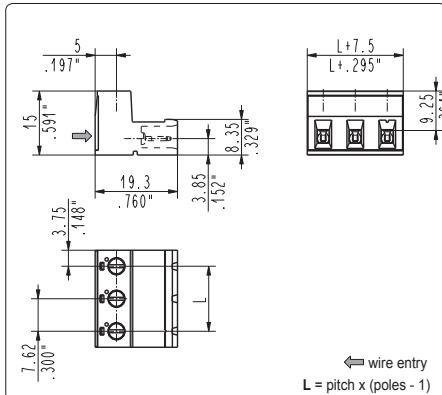
CGM_0P2 polarized male

10 mm / .394" pitch					
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	CGM010P2	500	1,11	1500	3,33
02	CGM020P2	400	1,78	1000	4,44
03	CGM030P2	250	1,67	750	4,99
04	CGM040P2	175	1,55	500	4,44
05	CGM050P2	125	1,39	250	2,78
06	CGM060P2	100	1,33	250	3,33
07	CGM070P2	75	1,17	250	3,89
08	CGM080P2	75	1,33	250	4,44
09	CGM090P2	50	0,99	250	4,99
10	CGM100P2	50	1,11	250	5,55
11	CGM110P2	50	1,22	250	6,11
12	CGM120P2	50	1,33	250	6,66
13	CGM130P2	50	1,44	250	7,22



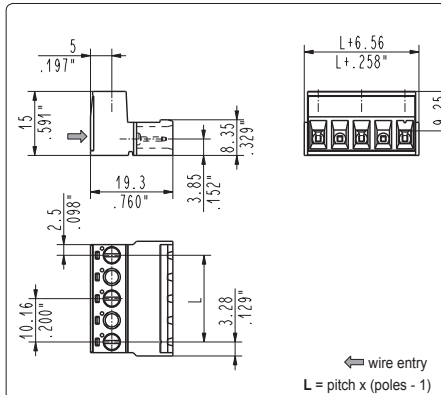
CGM_0P5 polarized male

5.08 mm / .200" pitch					
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CGM020P5	500	1,90	1500	5,70
03	CGM030P5	400	2,28	1000	5,70
04	CGM040P5	300	2,28	750	5,70
05	CGM050P5	250	2,38	750	7,13
06	CGM060P5	200	2,28	500	5,70
07	CGM070P5	175	2,33	500	6,65
08	CGM080P5	150	2,28	500	7,60
09	CGM090P5	125	2,14	250	4,28
10	CGM100P5	100	1,90	250	4,75
11	CGM110P5	100	2,09	250	5,23
12	CGM120P5	75	1,71	250	5,70
13	CGM130P5	75	1,85	250	6,18
14	CGM140P5	75	1,99	250	6,65
15	CGM150P5	75	2,14	250	7,13
16	CGM160P5	75	2,28	250	7,60
17	CGM170P5	50	1,62	250	8,08
18	CGM180P5	50	1,71	250	8,55
19	CGM190P5	50	1,81	125	4,51
20	CGM200P5	50	1,90	125	4,75
21	CGM210P5	50	1,99	125	4,99
22	CGM220P5	50	2,09	125	5,23
23	CGM230P5	50	2,19	125	5,46
24	CGM240P5	50	2,28	125	5,70
25	CGM250P5	50	2,38	125	5,94



CGM_0P7 polarized male

7.62 mm / .300" pitch					
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CGM020P7	400	1,76	1000	4,40
03	CGM030P7	250	1,65	750	4,95
04	CGM040P7	200	1,76	500	4,40
05	CGM050P7	150	1,65	500	5,50
06	CGM060P7	125	1,65	250	3,30
07	CGM070P7	100	1,54	250	3,85
08	CGM080P7	75	1,32	250	4,40
09	CGM090P7	75	1,49	250	4,95
10	CGM100P7	75	1,65	250	5,50
11	CGM110P7	50	1,21	250	6,05
12	CGM120P7	50	1,32	250	6,60



CGM_0P6 polarized male

10.16 mm / .400" pitch					
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	CGM010P6	500	1,11	1500	3,33
02	CGM020P6	400	1,78	1000	4,44
03	CGM030P6	250	1,67	750	4,99
04	CGM040P6	175	1,55	500	4,44
05	CGM050P6	125	1,39	250	2,78
06	CGM060P6	100	1,33	250	3,33
07	CGM070P6	75	1,17	250	3,89
08	CGM080P6	75	1,33	250	4,44
09	CGM090P6	50	0,99	250	4,99
10	CGM100P6	50	1,11	250	5,55
11	CGM110P6	50	1,22	250	6,11
12	CGM120P6	50	1,33	250	6,66
13	CGM130P6	50	1,44	250	7,22