

CGF

Functional characteristics



Dimensional class:
medium



Standard colour:
green



Dimensions:
18.9 x 10.2 mm (.744 x .402 in)



Versions:
modular,

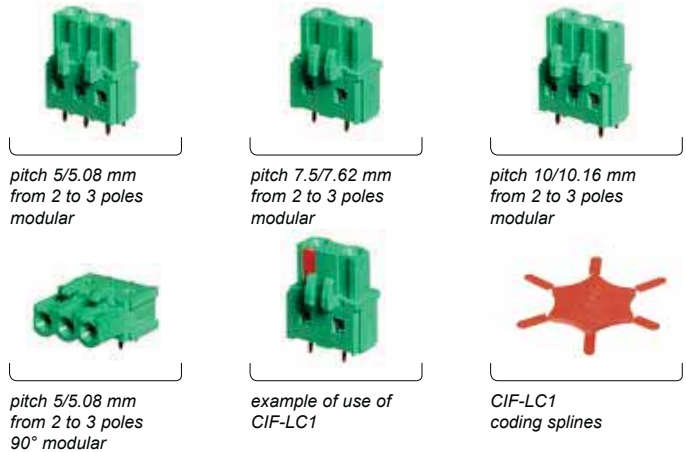
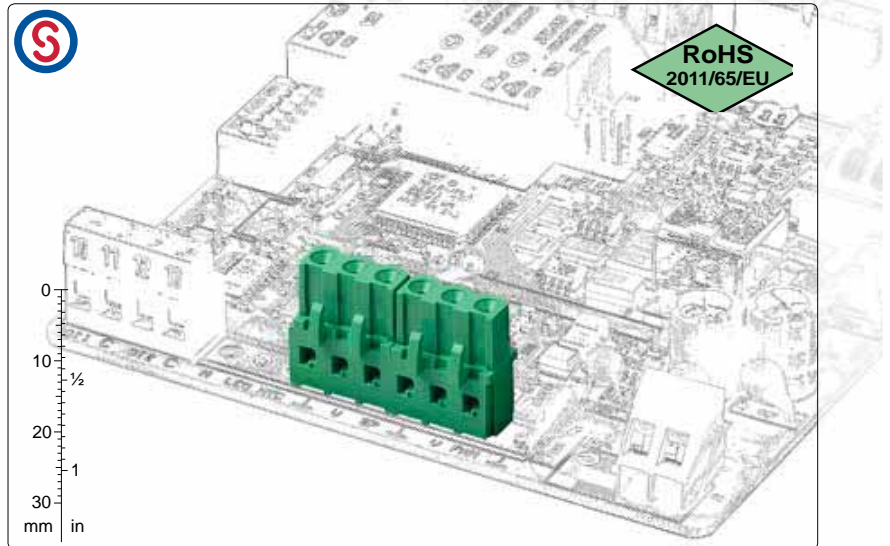
Single mould poles:
from 2 to 3



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

The CGF series of female connectors, which are to be soldered, were created so that the contacts to be soldered onto the board, which could be Electricly charged, are inaccessible. By using male connectors to be soldered on the same board, the inputs (male) can be clearly seen from the outputs (female).

The CGF 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 25 poles, in side-stackable or modular versions. It is possible to connect the relative male parallel or vertical to the PCB.

The CGF female connector series to be soldered for PCBs is characterized by an asymmetric profile, so mistakes are prevented when connections are made. By taking advantage of its compatibility with the CIM, CPM or CRM male series which can be soldered to the board, it is

possible to have board-board 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).

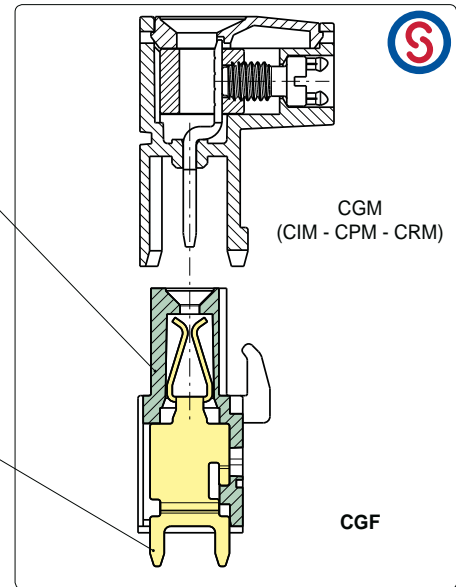
It is possible to side-stack or assemble the basic modular connectors in order to obtain any number of poles without losing the pitch. By taking advantage of this particular characteristic a minimum stock of basic connectors can be kept.

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

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 \geq 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)
PCB thickness	max 2.4 mm (.094 in)
PCB hole diameter	min 1.4 mm (.055 in)
Operating temperature range	-40 °C + +110 °C (-40 °F + +230 °F)
Climatic category	40/110/21 According to EN 60068-1

Electric characteristics*

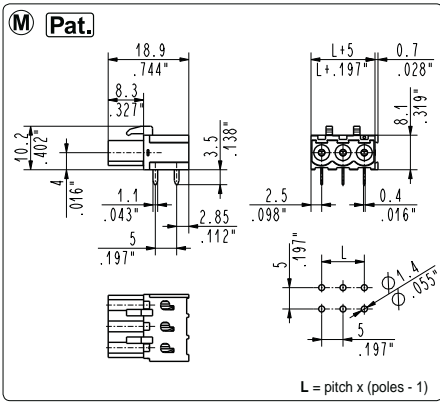
Rated voltage for 5 mm (.197 in) and 5.08 mm (.200 in) pitch	320 V (IMQ)*
Rated voltage for 7.5 mm (.295 in) and 7.62 mm (.300 in) pitch	500 V (IMQ)*
Rated voltage for 10 mm (.394 in) and 10.16 mm (.400 in) pitch	800 V (IMQ)*
Rated current	16 A (VDE)*
Contact resistance	<15 m Ω
Insulation resistance	>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: EN 61984	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
		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: File E167473	300 V - 15 A - 30+12 AWG for 5 mm, 5.08 mm, 7.5 mm and 7.62 mm pitch
		600 V - 15 A - 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.
VDE	VDE: File n. 40027448	for 5 mm and 5.08 mm pitch: 250 V - 16 A - 2.5 mm ² - T110 - 2,5kV - 2
		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: File n. EM672	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
		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

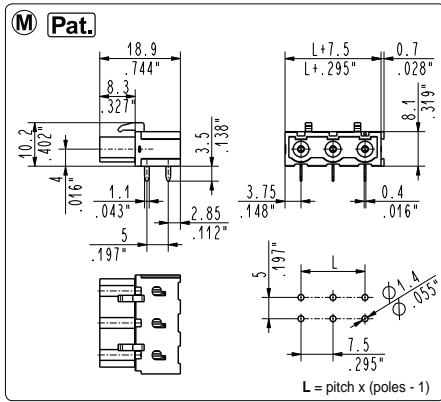
See also "Certifications", page 8



CGF_9M1 90°, modular female

5 mm / .197" pitch

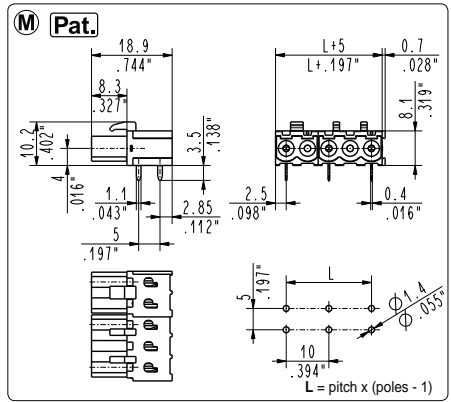
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CGF029M1	500	1,10	1500	3,30
03	CGF039M1	400	1,32	1000	3,30



CGF_9M3 90°, modular female

7.5 mm / .295" pitch

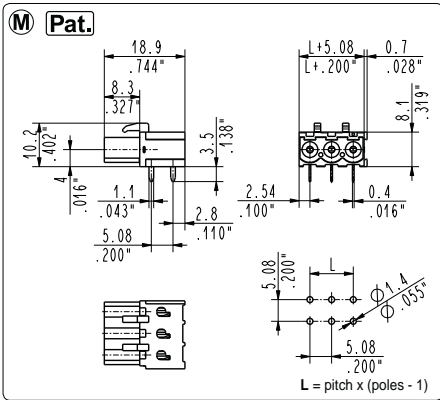
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CGF029M3	400	0,72	1000	1,80
03	CGF039M3	250	0,68	750	2,03



CGF_9M2 90°, modular female

10 mm / .394" pitch

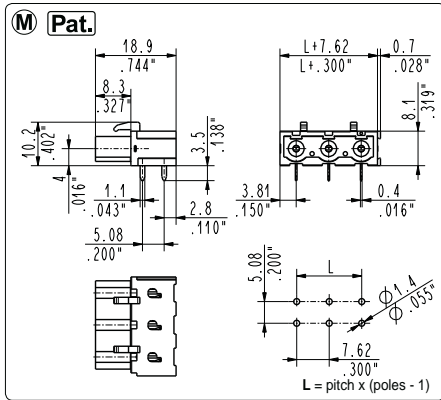
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	CGF019M2	500	0,59	1500	0,77
02	CGF029M2	400	0,94	1000	2,36



CGF_9M5 90°, modular female

5.08 mm / .200" pitch

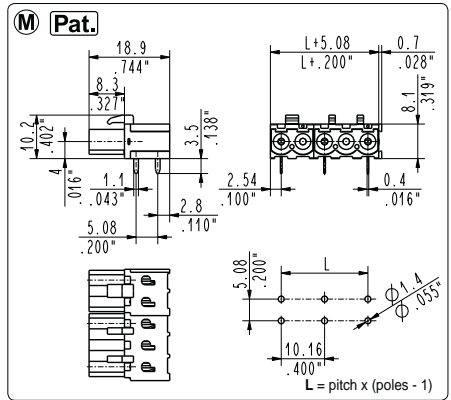
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CGF029M5	500	1,10	1500	3,30
03	CGF039M5	400	1,32	1000	3,30



CGF_9M7 90°, modular female

7.62 mm / .300" pitch

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CGF029M7	400	0,72	1000	1,80
03	CGF039M7	250	0,68	750	2,03



CGF_9M6 90°, modular female

10.16 mm / .400" pitch

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	CGF019M6	500	0,59	1500	0,77
02	CGF029M6	400	0,94	1000	2,36