

Functional characteristics

**Dimensional class:**

medium

**Standard colour:**

green

**Dimensions:**

22.08 x 23.47 mm (.869 x .924 in)

**Versions:**modular,
polarized,**Single mould poles:**

from 2 to 25 (modular and side stackable)

**Pitches:**

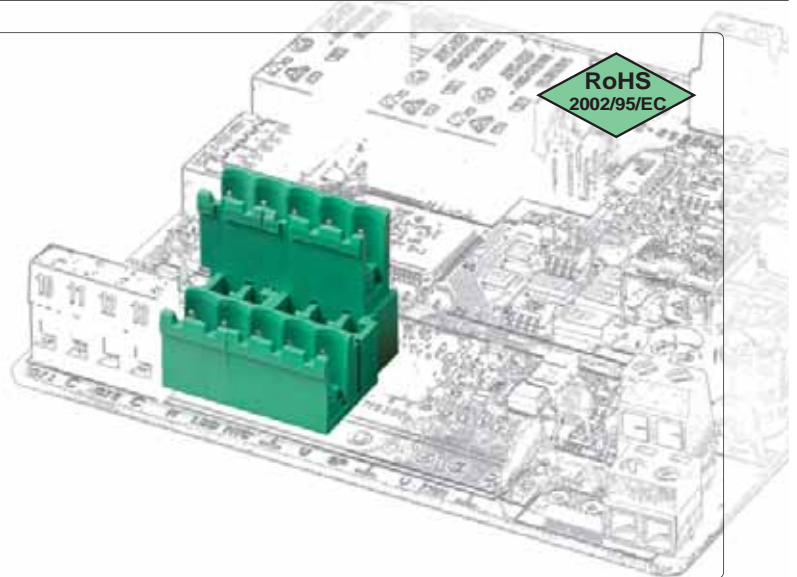
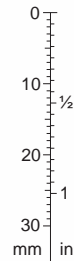
metric 5 mm, 10 mm

(.197 in, .394 in)



imperial 5.08 mm, 10.16 mm

(.200 in, .400 in)

pitch 5/5.08 mm
from 2 to 5 poles
straight version, modularpitch 5/5.08 mm
from 2 to 3 poles
90° version, modularpitch 5/5.08 mm
from 2 to 25 poles
90° version, polarizedCIM-SC1
coding splines

Brief description

The **CPM** Plurimo male connector series is available in 5 mm (.197 in) and 10 mm (.394 in) metric pitches and in 5.08 mm (.200 in), and from 10.16 mm (.400 in) Imperial pitches, in blocks from 2 to 25 poles, in polarized or modular versions. It is possible to connect the relative female parallel or vertical to the PCB.

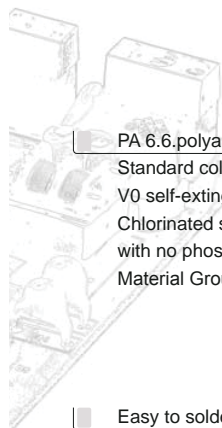
The **CPM** connector series for PCBs is characterized by an asymmetric profile, so mistakes are prevented when connections are made with the relative **CIF** or **CVF** with screw connection to the wire or **CGF** soldered to the board. Further safety when connecting can be obtained by using the **CIF-LC1** 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.

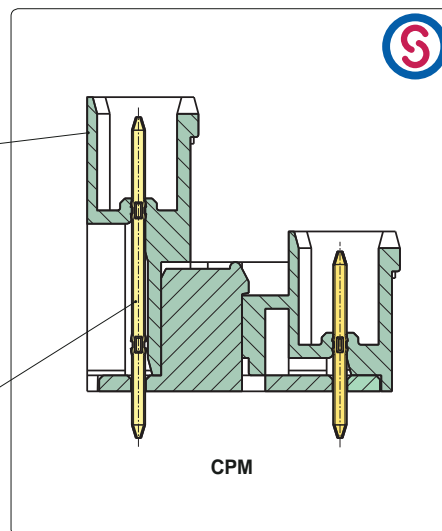
It is simple to manage the product, the warehouse and the assembly with the Kit packages because several versions can be received with only one code, the part-numbers are significantly reduced and the risk of making mistakes is also reduced.

Characteristics of components



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.
 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 (UL, CSA)*
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.

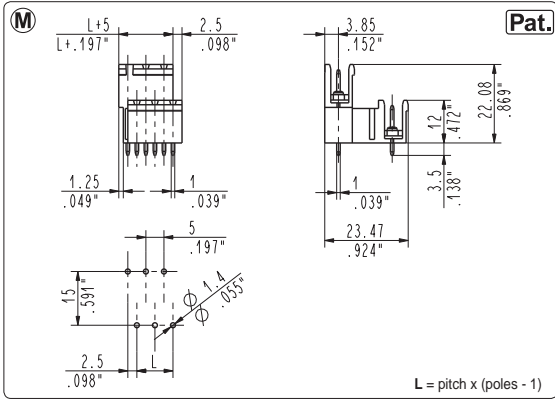
Approvals

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 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 for 5 mm and 5.08 mm pitch
	File n. E167473	600 V - 15 A - 30 \pm 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:	for 5 mm and 5.08 mm pitch:	250 V - 16 A - 2.5 mm ² - T110 - 2,5kV - 2
	File n. 40027448	for 10 mm and 10.16 mm pitch:	750 V - 16 A - 2.5 mm ² - T110 - 6kV - 2

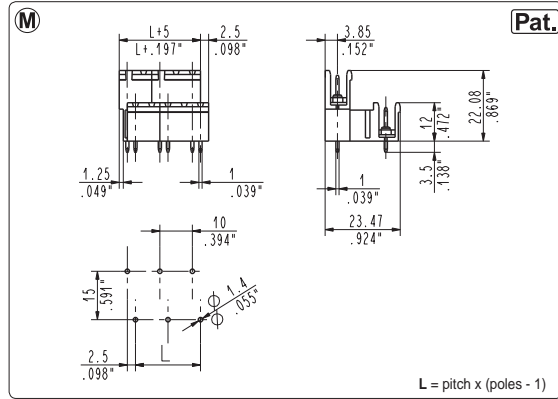
IMQ	IMQ:	for 5 mm and 5.08 mm pitch:	200 V - 16 A - 2.5 mm ² - T110 - 4kV - 3 / 320 V - 16 A - 2.5 mm ² - T110 - 4kV - 2
	File n. EM672	for 10 mm and 10.16 mm pitch:	500 V - 16 A - 2.5 mm ² - T110 - 8kV - 3 / 800 V - 16 A - 2.5 mm ² - T110 - 8kV - 2



CPM_0M1 straight, modular male

5 mm / .197" pitch

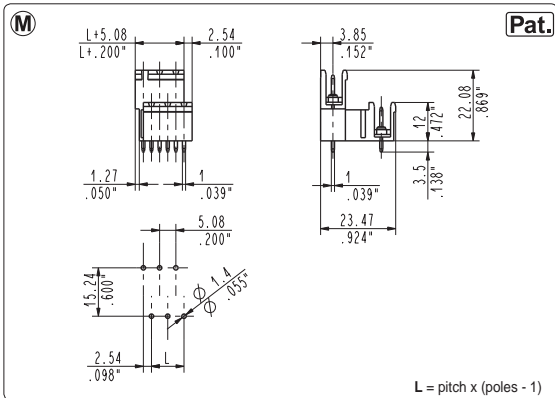
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CPM020M1	250	0,68	500	1,36
03	CPM030M1	200	0,82	500	2,04



CPM_0M2 straight, modular male

10 mm / .394" pitch

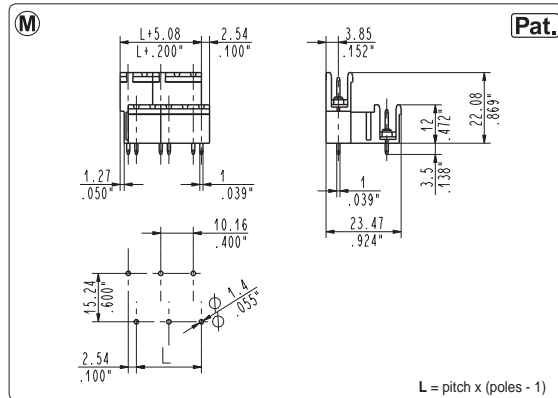
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	CPM010M2	250	0,47	500	0,94
02	CPM020M2	175	0,66	500	1,88
03	CPM030M2	140	0,79	250	1,41
04	CPM040M2	100	0,75	250	1,88
05	CPM050M2	70	0,66	250	2,35
06	CPM060M2	70	0,79	125	1,41
07	CPM070M2	50	0,66	125	1,65
08	CPM080M2	50	0,75	125	1,88
09	CPM090M2	50	0,85	125	2,12
10	CPM100M2	35	0,66	125	2,35
11	CPM110M2	35	0,72	100	2,07
12	CPM120M2	35	0,79	100	2,26
13	CPM130M2	25	0,61	100	2,44



CPM_0M5 straight, modular male

5.08 mm / .200" pitch

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CPM020M5	250	0,68	500	1,36
03	CPM030M5	200	0,82	500	2,04



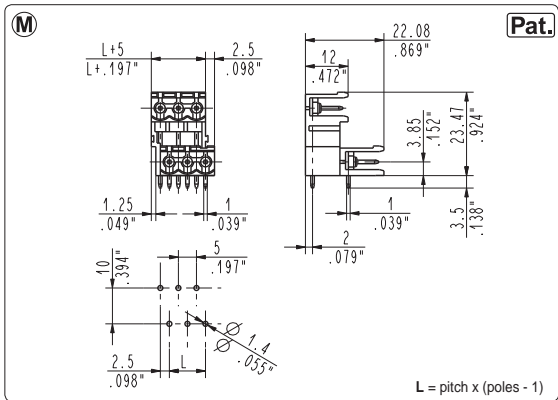
CPM_0M6 straight, modular male

10.16 mm / .400" pitch

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	CPM010M6	250	0,47	500	0,94
02	CPM020M6	175	0,66	500	1,88
03	CPM030M6	140	0,79	250	1,41
04	CPM040M6	100	0,75	250	1,88
05	CPM050M6	70	0,66	250	2,35
06	CPM060M6	70	0,79	125	1,41
07	CPM070M6	50	0,66	125	1,65
08	CPM080M6	50	0,75	125	1,88
09	CPM090M6	50	0,85	125	2,12
10	CPM100M6	35	0,66	125	2,35
11	CPM110M6	35	0,72	100	2,07
12	CPM120M6	35	0,79	100	2,26
13	CPM130M6	25	0,61	100	2,44

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

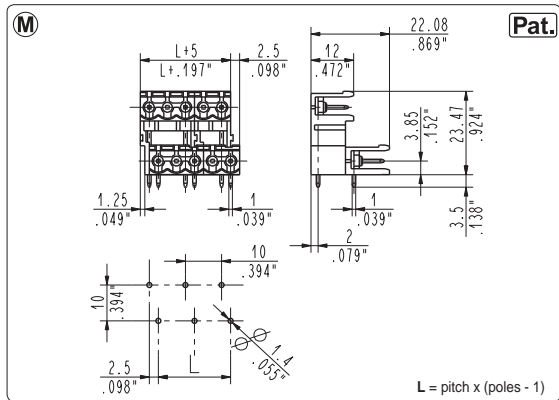
**industrial packaging: add "-00000E" at standard code



CPM_9M1 90°, modular male

5 mm / .197" pitch

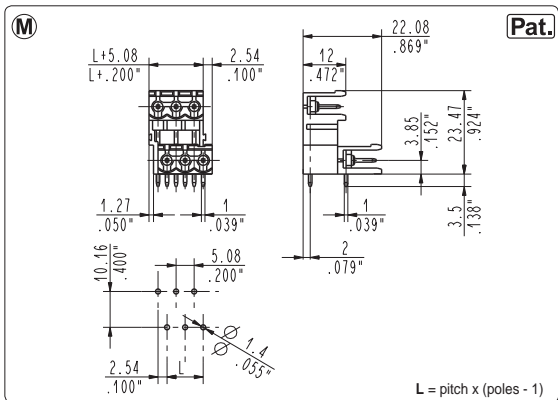
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CPM029M1	250	0,68	500	1,36
03	CPM039M1	200	0,82	500	2,04



CPM_9M2 90°, modular male

10 mm / .394" pitch

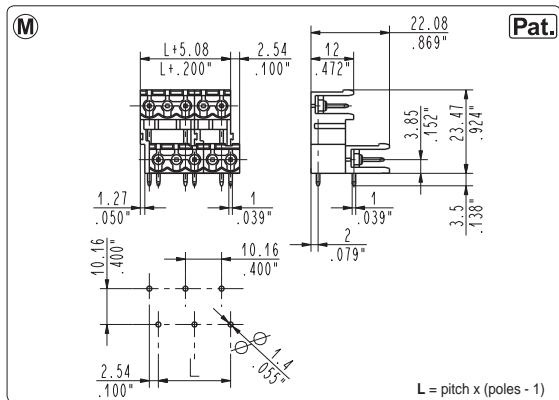
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	CPM019M2	250	0,47	500	0,94
02	CPM029M2	175	0,66	500	1,88
03	CPM039M2	140	0,79	250	1,41
04	CPM049M2	100	0,75	250	1,88
05	CPM059M2	70	0,66	250	2,35
06	CPM069M2	70	0,79	125	1,41
07	CPM079M2	50	0,66	125	1,65
08	CPM089M2	50	0,75	125	1,88
09	CPM099M2	50	0,85	125	2,12
10	CPM109M2	35	0,66	125	2,35
11	CPM119M2	35	0,72	100	2,07
12	CPM129M2	35	0,79	100	2,26
13	CPM139M2	25	0,61	100	2,44



CPM_9M5 90°, modular male

5.08 mm / .200" pitch

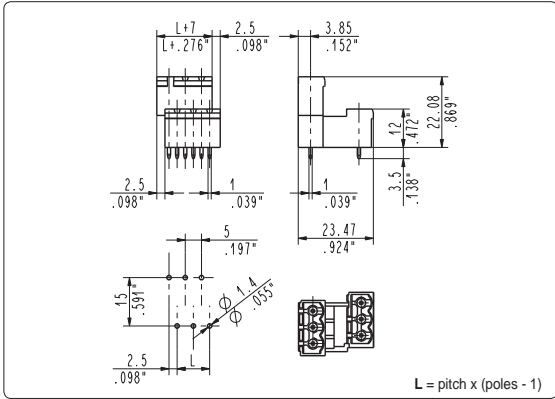
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CPM029M5	250	0,68	500	1,36
03	CPM039M5	200	0,82	500	2,04



CPM_9M6 90°, modular male

10.16 mm / .400" pitch

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	CPM019M6	250	0,47	500	0,94
02	CPM029M6	175	0,66	500	1,88
03	CPM039M6	140	0,79	250	1,41
04	CPM049M6	100	0,75	250	1,88
05	CPM059M6	70	0,66	250	2,35
06	CPM069M6	70	0,79	125	1,41
07	CPM079M6	50	0,66	125	1,65
08	CPM089M6	50	0,75	125	1,88
09	CPM099M6	50	0,85	125	2,12
10	CPM109M6	35	0,66	125	2,35
11	CPM119M6	35	0,72	100	2,07
12	CPM129M6	35	0,79	100	2,26
13	CPM139M6	25	0,61	100	2,44

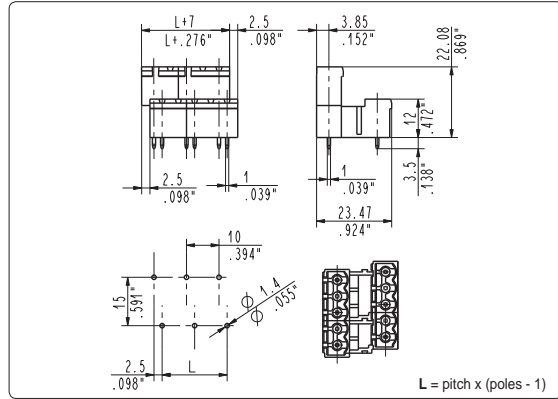


L = pitch x (poles - 1)

CPM_0P1 straight, polarized male

5 mm / .197" pitch

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CPM020P1	250	0,78	500	1,56
03	CPM030P1	200	0,94	500	2,34
04	CPM040P1	175	1,09	500	3,12
05	CPM050P1	140	1,09	250	1,95
06	CPM060P1	140	1,31	250	2,34
07	CPM070P1	100	1,09	250	2,73
08	CPM080P1	100	1,25	250	3,12
09	CPM090P1	70	0,98	250	3,51
10	CPM100P1	70	1,09	250	3,90
11	CPM110P1	70	1,20	250	4,29
12	CPM120P1	50	0,94	125	2,34
13	CPM130P1	50	1,01	125	2,54
14	CPM140P1	50	1,09	125	2,73
15	CPM150P1	50	1,17	125	2,93
16	CPM160P1	50	1,25	125	3,12
17	CPM170P1	50	1,33	125	3,32
18	CPM180P1	35	0,98	125	3,51
19	CPM190P1	35	1,04	125	3,71
20	CPM200P1	35	1,09	125	3,90
21	CPM210P1	35	1,15	125	4,01
22	CPM220P1	35	1,20	125	4,29
23	CPM230P1	35	1,26	100	3,59
24	CPM240P1	35	1,31	100	3,74
25	CPM250P1	25	0,98	100	3,90

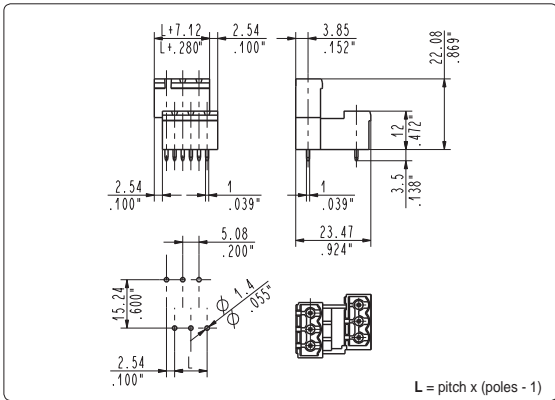


L = pitch x (poles - 1)

CPM_0P2 straight, polarized male

10 mm / .394" pitch

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CPM020P2	175	0,73	500	2,08
03	CPM030P2	140	0,87	500	3,12
04	CPM040P2	100	0,83	250	2,08
05	CPM050P2	70	0,73	250	2,60
06	CPM060P2	70	0,87	250	3,12
07	CPM070P2	50	0,73	125	1,82
08	CPM080P2	50	0,83	125	2,08
09	CPM090P2	50	0,94	125	2,34
10	CPM100P2	35	0,73	125	2,60
11	CPM110P2	35	0,80	125	2,86
12	CPM120P2	35	0,87	100	2,50
13	CPM130P2	25	0,68	100	2,70

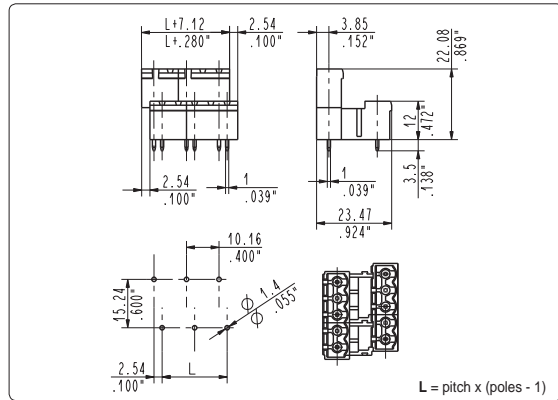


L = pitch x (poles - 1)

CPM_0P5 straight, polarized male

5.08 mm / .200" pitch

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CPM020P5	250	0,78	500	1,56
03	CPM030P5	200	0,94	500	2,34
04	CPM040P5	175	1,09	500	3,12
05	CPM050P5	140	1,09	250	1,95
06	CPM060P5	140	1,31	250	2,34
07	CPM070P5	100	1,09	250	2,73
08	CPM080P5	100	1,25	250	3,12
09	CPM090P5	70	0,98	250	3,51
10	CPM100P5	70	1,09	250	3,90
11	CPM110P5	70	1,20	250	4,29
12	CPM120P5	50	0,94	125	2,34
13	CPM130P5	50	1,01	125	2,54
14	CPM140P5	50	1,09	125	2,73
15	CPM150P5	50	1,17	125	2,93
16	CPM160P5	50	1,25	125	3,12
17	CPM170P5	50	1,33	125	3,32
18	CPM180P5	35	0,98	125	3,51
19	CPM190P5	35	1,04	125	3,71
20	CPM200P5	35	1,09	125	3,90
21	CPM210P5	35	1,15	125	4,01
22	CPM220P5	35	1,20	125	4,29
23	CPM230P5	35	1,26	100	3,59
24	CPM240P5	35	1,31	100	3,74
25	CPM250P5	25	0,98	100	3,90



L = pitch x (poles - 1)

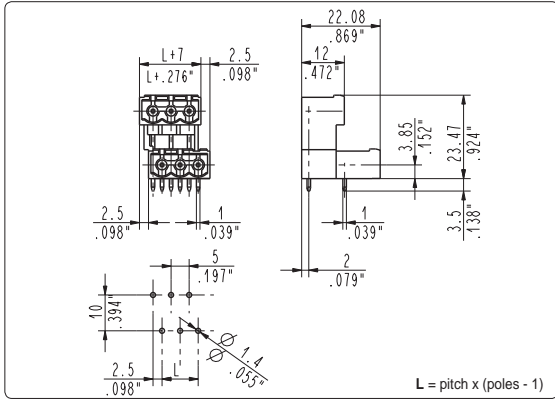
CPM_0P6 straight, polarized male

10.16 mm / .400" pitch

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CPM020P6	175	0,73	500	2,08
03	CPM030P6	140	0,87	500	3,12
04	CPM040P6	100	0,83	250	2,08
05	CPM050P6	70	0,73	250	2,60
06	CPM060P6	70	0,87	250	3,12
07	CPM070P6	50	0,73	125	1,82
08	CPM080P6	50	0,83	125	2,08
09	CPM090P6	50	0,94	125	2,34
10	CPM100P6	35	0,73	125	2,60
11	CPM110P6	35	0,80	125	2,86
12	CPM120P6	35	0,87	100	2,50
13	CPM130P6	25	0,68	100	2,70

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

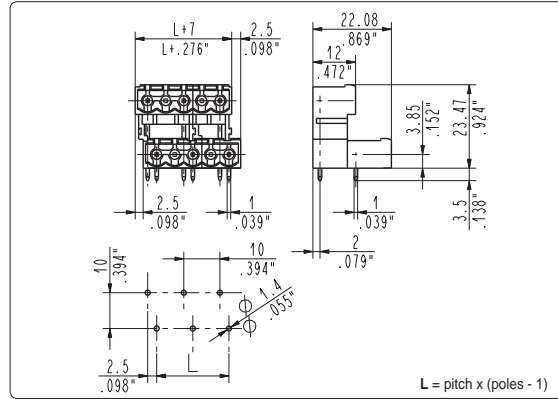
**industrial packaging: add "-00000E" at standard code



CPM_9P1 90°, polarized male

5 mm / .197" pitch

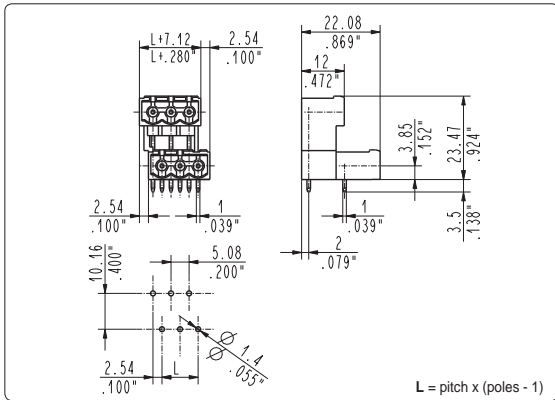
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CPM029P1	250	0,78	500	1,56
03	CPM039P1	200	0,94	500	2,34
04	CPM049P1	175	1,09	500	3,12
05	CPM059P1	140	1,09	250	1,95
06	CPM069P1	100	0,94	250	2,34
07	CPM079P1	100	1,09	250	2,73
08	CPM089P1	100	1,25	250	3,12
09	CPM099P1	70	0,98	250	3,51
10	CPM109P1	70	1,09	250	3,90
11	CPM119P1	70	1,20	250	4,29
12	CPM129P1	50	0,94	125	2,34
13	CPM139P1	50	1,01	125	2,54
14	CPM149P1	50	1,09	125	2,73
15	CPM159P1	50	1,17	125	2,93
16	CPM169P1	50	1,25	125	3,12
17	CPM179P1	50	1,33	125	3,32
18	CPM189P1	35	0,98	125	3,51
19	CPM199P1	35	1,04	125	3,71
20	CPM209P1	35	1,09	125	3,90
21	CPM219P1	35	1,15	125	4,01
22	CPM229P1	35	1,20	125	4,29
23	CPM239P1	35	1,26	100	3,59
24	CPM249P1	35	1,31	100	3,74
25	CPM259P1	25	0,98	100	3,90



CPM_9P2 90°, polarized male

10 mm / .394" pitch

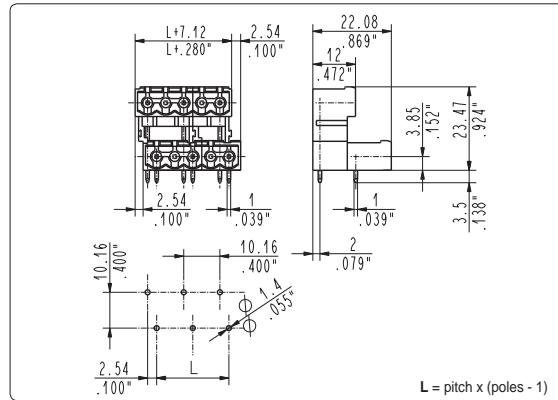
Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CPM029P2	175	0,73	500	2,08
03	CPM039P2	140	0,87	500	3,12
04	CPM049P2	100	0,83	250	2,08
05	CPM059P2	70	0,73	250	2,60
06	CPM069P2	70	0,87	250	3,12
07	CPM079P2	50	0,73	125	1,82
08	CPM089P2	50	0,83	125	2,08
09	CPM099P2	50	0,94	125	2,34
10	CPM109P2	35	0,73	125	2,60
11	CPM119P2	35	0,80	125	2,86
12	CPM129P2	35	0,87	100	2,50
13	CPM139P2	25	0,68	100	2,70



CPM_9P5 90°, polarized male

5.08 mm / .200" pitch

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CPM029P5	250	0,78	500	1,56
03	CPM039P5	200	0,94	500	2,34
04	CPM049P5	175	1,09	500	3,12
05	CPM059P5	140	1,09	250	1,95
06	CPM069P5	100	0,94	250	2,34
07	CPM079P5	100	1,09	250	2,73
08	CPM089P5	100	1,25	250	3,12
09	CPM099P5	70	0,98	250	3,51
10	CPM109P5	70	1,09	250	3,90
11	CPM119P5	70	1,20	250	4,29
12	CPM129P5	50	0,94	125	2,34
13	CPM139P5	50	1,01	125	2,54
14	CPM149P5	50	1,09	125	2,73
15	CPM159P5	50	1,17	125	2,93
16	CPM169P5	50	1,25	125	3,12
17	CPM179P5	50	1,33	125	3,32
18	CPM189P5	35	0,98	125	3,51
19	CPM199P5	35	1,04	125	3,71
20	CPM209P5	35	1,09	125	3,90
21	CPM219P5	35	1,15	125	4,01
22	CPM229P5	35	1,20	125	4,29
23	CPM239P5	35	1,26	100	3,59
24	CPM249P5	35	1,31	100	3,74
25	CPM259P5	25	0,98	100	3,90



CPM_9P6 90°, polarized male

10.16 mm / .400" pitch

Poles	Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CPM029P6	175	0,73	500	2,08
03	CPM039P6	140	0,87	500	3,12
04	CPM049P6	100	0,83	250	2,08
05	CPM059P6	70	0,73	250	2,60
06	CPM069P6	70	0,87	250	3,12
07	CPM079P6	50	0,73	125	1,82
08	CPM089P6	50	0,83	125	2,08
09	CPM099P6	50	0,94	125	2,34
10	CPM109P6	35	0,73	125	2,60
11	CPM119P6	35	0,80	125	2,86
12	CPM129P6	35	0,87	100	2,50
13	CPM139P6	25	0,68	100	2,70