

The PowerMod® connector family offers minimum size and high power. The high performance contacts and insulator are rated for 30 amps continuous. Applications requiring lower operating temperatures can be de-rated using our current-temperature chart.

The three row male PowerMod connectors are offered in 9, 12, 18, 24 and 30 circuit sizes. The connectors are available with straight crimp, straight PCB or right angle PCB contacts.

APP connectors are manufactured using the finest materials and world-class manufacturing processes. They embody the highest quality in the industry and meet all applicable industry standards.

FEATURES

- Mechanically polarized housings

Only mate one-way, ensuring proper mating

- **High reliability positive retention latches**

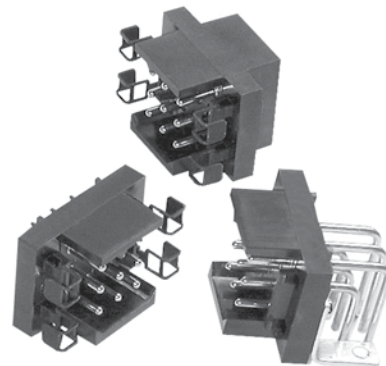
Are made from stainless steel to provide optimum performance

- PCB, panel or cable mounting

A wide variety of contact styles with optional mounting brackets, panel clips and back-shell hoods provide broad design flexibility

- **Optional sequential contact mating**

4 pin contact lengths can be custom specified for make-first/break-last or make-last/break-first circuits



SPECIFICATIONS

Electrical

Current Rating	
IEC 512-3, UL 1977 (Amperes)	30
UL / CSA Voltage Rating (AC/DC)	600
Creepage / Clearance Distance	3.2 mm (.125") Min
Contact Resistance per IEC 512-2	3 milliohms
Dielectric Withstanding Voltage (AC)	2,200
Contact Wire Range (AWG)	#24 to #12
(mm ²) *	0.25 to 4.0
Operating Temperature (°C)	-55° to 180°
(°F)	-67° to 356°

Mechanical

Mating Cycles No Load per IEC 512-5	1,000
Mating / Unmating Force per IEC 512-13	10 oz (3N) avg.
Contact Retention per IEC 512-8	18 lb (80N) Crimp 9 lb (40N) PCB Connector

Materials

Insulator	PPS UL94 V-0, material group IIIa
Pins	Copper alloy, 10 μ inch Au over Ni
Tail Solder (PCB contacts)	Sn/Ag/Cu (lead free)
Retention Clips	Stainless steel
Hoods	PBT UL94 V-0



CA US File No. E26226

* Stranding, IEC class 5 or lower

ORDERING INFORMATION

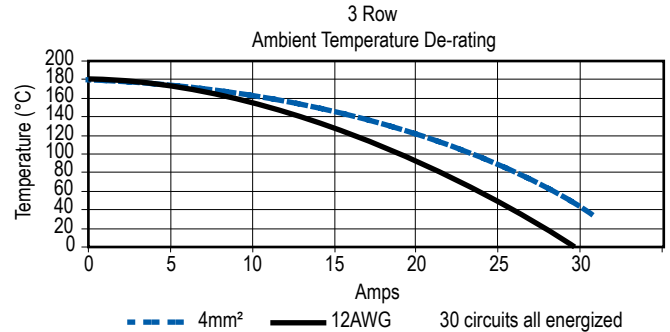
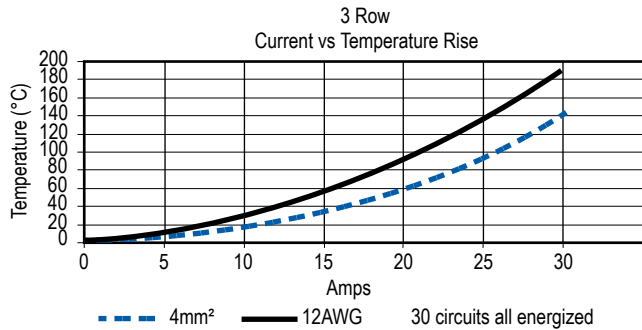
PowerMod Part Number Plan - Three Row Male

Series	Rows	# Poles	Gender	Contact	Latch	Mounting	Customized Connector			
P M	3	0 9	M	BA	L	CH	-	X	X	X
3							Consult factory for options			
09, 12, 18, 24, 30 Poles							OO - None			
M - Male							SB - R/A PCB Snap Bracket			
							HB - R/A PCB Bracket with Hole			
							ST - Self-tapping screws for straight PCB mount			
							SP - Push in fastener for straight PCB mount			
							CH - With clam-shell hood			
							PC - Panel Clip			
							MC - Mounting Clip			
							SC - Screw for 1.6mm panel mount			
							L - Connector with latch (standard for contact type OO)			
							O - No latch			

Tooling

Part Number	Mil-Standard	Description
TM0001	M22520/1-01	AF8 hand tool
TP0001	N/A	WA27F pneumatic crimp tool
Turret & Locator for TM0001 & TP0001		
TL0001	N/A	For pin contacts
TL0002	N/A	For socket contacts
PM1000G1	N/A	Pneumatic four indent hand tool with locator
PM1002G1	N/A	Contact insertion tool
PM1003G1	N/A	Contact extraction tool

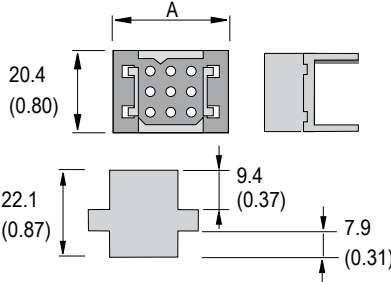
TEMPERATURE CHARTS



DIMENSIONS - mm(in.)

Cable Connector

ROWS CONTACTS	A	
	mm	in.
3 - 09	28.5	1.12
3 - 12	33.5	1.32
3 - 18	43.5	1.71
3 - 24	53.5	2.11
3 - 30	63.5	2.50



See accessory section for panel clip and mounting clip cut-out dimensions.

ORDERING INFORMATION

Crimp Contacts

Part Number	Description	Wire AWG	sq. mm
Standard Length 7.7mm			
PM16P2024S30	Pin	#24 / 20	0.50 / 0.75
PM16P1620S30	Pin	#20 / 16	0.50 / 1.5
PM16P1416S30	Pin	#16 / 14	1.5 / 2.5
PM16P12S30	Pin	#12	2.5 / 4.0
Pre-Mate 9.3mm			
PM16P2024A30	Pin	#24 / 20	0.50 / 0.75
PM16P1620A30	Pin	#20 / 16	0.50 / 1.5
PM16P1416A30	Pin	#16 / 14	1.5 / 2.5
PM16P12A30	Pin	#12	2.5 / 4.0
Pre-Mate 8.5mm			
PM16P2024B30	Pin	#24 / 20	0.50 / 0.75
PM16P1620B30	Pin	#20 / 16	0.50 / 1.5
PM16P1416B30	Pin	#16 / 14	1.5 / 2.5
PM16P12B30	Pin	#12	2.5 / 4.0
Post-Mate 6.6mm			
PM16P2024C30	Pin	#24 / 20	0.50 / 0.75
PM16P1620C30	Pin	#20 / 16	0.50 / 1.5
PM16P1416C30	Pin	#16 / 14	1.5 / 2.5
PM16P12C30	Pin	#12	2.5 / 4.0

Cable Connector

Part Number	Description
PM309MOOLOO	3x3 MALE Cable Connector
PM312MOOLOO	3x4 MALE Cable Connector
PM318MOOLOO	3x6 MALE Cable Connector
PM324MOOLOO	3x8 MALE Cable Connector
PM330MOOLOO	3x10 MALE Cable Connector

Panel Mount With Mounting Clip

Part Number	Description
PM309MOOLMC	3x3 MALE Cable Connector
PM312MOOLMC	3x4 MALE Cable Connector
PM318MOOLMC	3x6 MALE Cable Connector
PM324MOOLMC	3x8 MALE Cable Connector
PM330MOOLMC	3x10 MALE Cable Connector

Panel Mount With Screws

Part Number	Description
PM309MOOLSC	3x3 MALE Cable Connector
PM312MOOLSC	3x4 MALE Cable Connector
PM318MOOLSC	3x6 MALE Cable Connector
PM324MOOLSC	3x8 MALE Cable Connector
PM330MOOLSC	3x10 MALE Cable Connector

With Snap-in Panel Clip

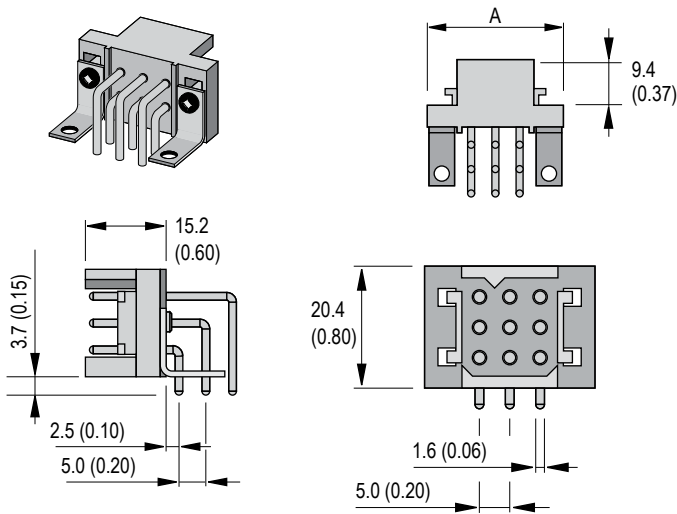
Part Number	Description
PM309MOOLPC	3x3 MALE Cable Connector
PM312MOOLPC	3x4 MALE Cable Connector
PM318MOOLPC	3x6 MALE Cable Connector
PM324MOOLPC	3x8 MALE Cable Connector
PM330MOOLPC	3x10 MALE Cable Connector

With Clam Shell Hood & Strain Relief

Part Number	Description
PM309MOOLCH	3x3 MALE Cable Connector
PM312MOOLCH	3x4 MALE Cable Connector
PM318MOOLCH	3x6 MALE Cable Connector
PM324MOOLCH	3x8 MALE Cable Connector
PM330MOOLCH	3x10 MALE Cable Connector

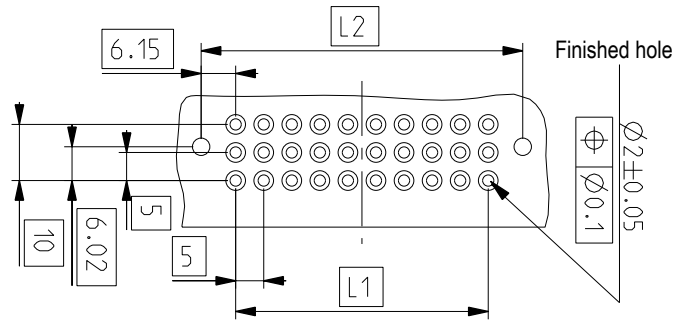
DIMENSIONS - mm(in.)

3 Row - PCB Right Angle Connector



3 Row - PCB Hole Layout For Right Angle Connector

ROWS CONTACTS	A		L1		L2	
	mm	in.	mm	in.	mm	in.
3 - 09	28.5	1.12	10	0.39	22.3	0.88
3 - 12	33.5	1.32	15	0.59	27.3	1.07
3 - 18	43.5	1.71	25	0.98	37.3	1.47
3 - 24	53.5	2.11	35	1.38	47.3	1.86
3 - 30	63.5	2.50	45	1.77	57.3	2.26



ORDERING INFORMATION

With Latch

Part Number	Description
PM309MRALOO	3x3 MALE Right Angle PCB Solder
PM312MRALOO	3x4 MALE Right Angle PCB Solder
PM318MRALOO	3x6 MALE Right Angle PCB Solder
PM324MRALOO	3x8 MALE Right Angle PCB Solder
PM330MRALOO	3x10 MALE Right Angle PCB Solder

Right Angle PCB Snap Bracket & Latch

Part Number	Description
PM309MRALSB	3x3 MALE Right Angle PCB Solder
PM312MRALSB	3x4 MALE Right Angle PCB Solder
PM318MRALSB	3x6 MALE Right Angle PCB Solder
PM324MRALSB	3x8 MALE Right Angle PCB Solder
PM330MRALSB	3x10 MALE Right Angle PCB Solder

Right Angle PCB Bracket With Hole & Latch

Part Number	Description
PM309MRALHB	3x3 MALE Right Angle PCB Solder
PM312MRALHB	3x4 MALE Right Angle PCB Solder
PM318MRALHB	3x6 MALE Right Angle PCB Solder
PM324MRALHB	3x8 MALE Right Angle PCB Solder
PM330MRALHB	3x10 MALE Right Angle PCB Solder

No Latch

Part Number	Description
PM309MRAOOO	3x3 MALE Right Angle PCB Solder
PM312MRAOOO	3x4 MALE Right Angle PCB Solder
PM318MRAOOO	3x6 MALE Right Angle PCB Solder
PM324MRAOOO	3x8 MALE Right Angle PCB Solder
PM330MRAOOO	3x10 MALE Right Angle PCB Solder

Right Angle PCB Snap Bracket & No Latch

Part Number	Description
PM3309MRAOSB	3x3 MALE Right Angle PCB Solder
PM3312MRAOSB	3x4 MALE Right Angle PCB Solder
PM3318MRAOSB	3x6 MALE Right Angle PCB Solder
PM3324MRAOSB	3x8 MALE Right Angle PCB Solder
PM3330MRAOSB	3x10 MALE Right Angle PCB Solder

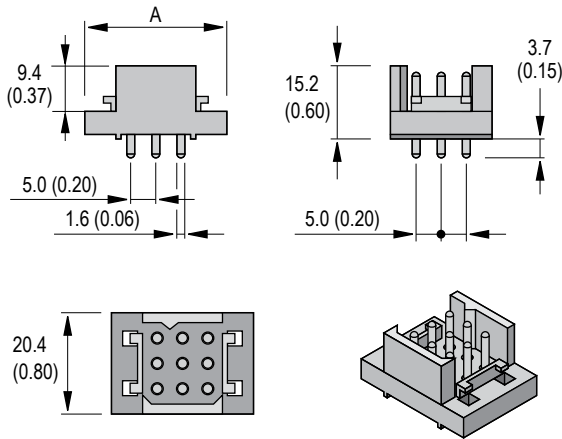
Right Angle PCB Bracket With Hole & No Latch

Part Number	Description
PM309MRAOHB	3x3 MALE Right Angle PCB Solder
PM312MRAOHB	3x4 MALE Right Angle PCB Solder
PM318MRAOHB	3x6 MALE Right Angle PCB Solder
PM324MRAOHB	3x8 MALE Right Angle PCB Solder
PM330MRAOHB	3x10 MALE Right Angle PCB Solder

PCB contacts and mounting accessories are designed for a board thickness of 1.60mm (.063) with a contact protrusion of 2.10 (.083). Other contact lengths are available upon request.

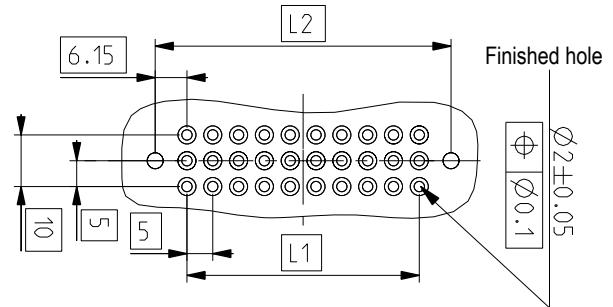
DIMENSIONS - mm(in.)

3 Row - PCB Straight Solder Connector



3 Row - PCB Hole Layout For Straight Solder Connector

ROWS CONTACTS	A		L1		L2	
	mm	in.	mm	in.	mm	in.
3 - 09	28.5	1.12	10	0.39	22.3	0.88
3 - 12	33.5	1.32	15	0.59	27.3	1.07
3 - 18	43.5	1.71	25	0.98	37.3	1.47
3 - 24	53.5	2.11	35	1.38	47.3	1.86
3 - 30	63.5	2.50	45	1.77	57.3	2.26



ORDERING INFORMATION

With Latch

Part Number	Description
PM309MBALOO	3x3 MALE Straight PCB Solder
PM312MBALOO	3x4 MALE Straight PCB Solder
PM318MBALOO	3x6 MALE Straight PCB Solder
PM324MBALOO	3x8 MALE Straight PCB Solder
PM330MBALOO	3x10 MALE Straight PCB Solder

Push On PCB Fastener & Latch

Part Number	Description
PM309MBALSP	3x3 MALE Straight PCB Solder
PM312MBALSP	3x4 MALE Straight PCB Solder
PM318MBALSP	3x6 MALE Straight PCB Solder
PM324MBALSP	3x8 MALE Straight PCB Solder
PM330MBALSP	3x10 MALE Straight PCB Solder

Self-tapping Screws For PCB Mount & Latch

Part Number	Description
PM309MBALST	3x3 MALE Straight PCB Solder
PM312MBALST	3x4 MALE Straight PCB Solder
PM318MBALST	3x6 MALE Straight PCB Solder
PM324MBALST	3x8 MALE Straight PCB Solder
PM330MBALST	3x10 MALE Straight PCB Solder

No Latch

Part Number	Description
PM309MBAOOO	3x3 MALE Straight PCB Solder
PM312MBAOOO	3x4 MALE Straight PCB Solder
PM318MBAOOO	3x6 MALE Straight PCB Solder
PM324MBAOOO	3x8 MALE Straight PCB Solder
PM330MBAOOO	3x10 MALE Straight PCB Solder

Push On PCB Fastener & No Latch

Part Number	Description
PM309MBAOSP	3x3 MALE Straight PCB Solder
PM312MBAOSP	3x4 MALE Straight PCB Solder
PM318MBAOSP	3x6 MALE Straight PCB Solder
PM324MBAOSP	3x8 MALE Straight PCB Solder
PM330MBAOSP	3x10 MALE Straight PCB Solder

Self-tapping Screws For PCB Mount & No Latch

Part Number	Description
PM309MBAOST	3x3 MALE Straight PCB Solder
PM312MBAOST	3x4 MALE Straight PCB Solder
PM318MBAOST	3x6 MALE Straight PCB Solder
PM324MBAOST	3x8 MALE Straight PCB Solder
PM330MBAOST	3x10 MALE Straight PCB Solder

PCB contacts and mounting accessories are designed for a board thickness of 1.60mm (.063) with a contact protrusion of 2.10 (.083).
Other contact lengths are available upon request.

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