

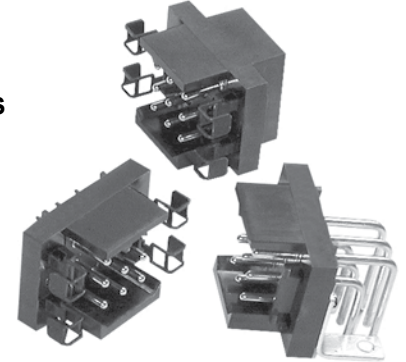
The PowerMod® connector family offers minimum size and high power. The high performance contacts and insulator are rated for 30 amps continuous. Applications requiring lower operating temperatures can be de-rated using our current-temperature chart.

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 | | Mechanical | |
|--------------------------------------|--------------------|--|---|
| Current Rating | | Mating Cycles No Load per IEC 512-5 | 1,000 |
| IEC 512-3, UL 1977 (Amperes) | 30 | Mating / Unmating Force per IEC 512-13 | 10 oz (3N) avg. |
| UL / CSA Voltage Rating (AC/DC) | 600 | Contact Retention per IEC 512-8 | 18 lb (80N) Crimp 9 lb (40N) PCB Connector |
| 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 | | |
| Contact Wire Range (mm²) * | 0.25 to 4.0 | | |
| Operating Temperature (°C) | -55° to 180° | | |
| (°F) | -67° to 356° | | |

| 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 |

* Stranding, IEC class 5 or lower

ORDERING INFORMATION

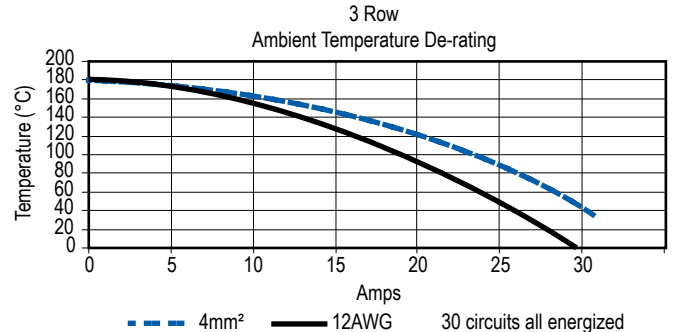
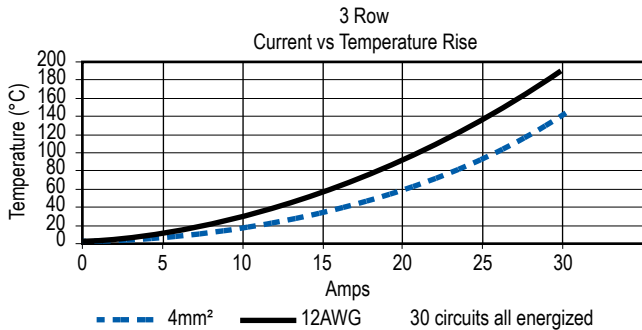
PowerMod Part Number Plan - Three Row Male

| Series | Rows | # Poles | Gender | Contact | Latch | Mounting | Customized Connector | | | |
|--------------------------|------|---------|--------|---------|-------|----------|---|---|---|---|
| PM | 3 | 09 | M | BA | L | CH | - | X | X | X |
| | | | | | | | Consult factory for options | | | |
| 09, 12, 18, 24, 30 Poles | | | | | | | OO - None 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 | | | |
| M - Male | | | | | | | 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 | Four indent hand tool with locator |
| PM1002G1 | N/A | Contact insertion tool |
| PM1003G1 | N/A | Contact extraction tool |

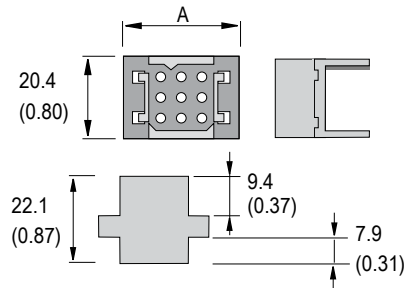
TEMPERATURE CHARTS



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 6.4mm | | | |
| 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

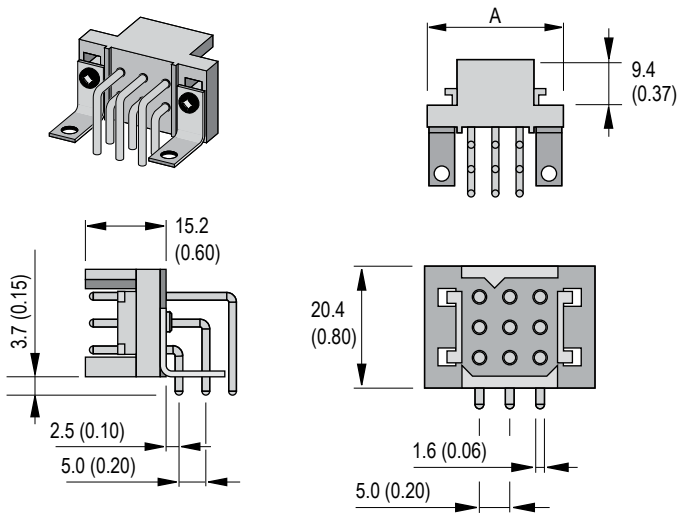
| Part Number | Description |
|-------------|---------------------------|
| PM309MOOLPC | 3x3 MALE Cable Connector |
| PM312MOOLPC | 3x4 MALE Cable Connector |
| PM318MOOLPC | 3x6 MALE Cable Connector |
| PM324MOOLPC | 3x8 MALE Cable Connector |
| PM330MOOLPC | 3x10 MALE Cable Connector |

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 |

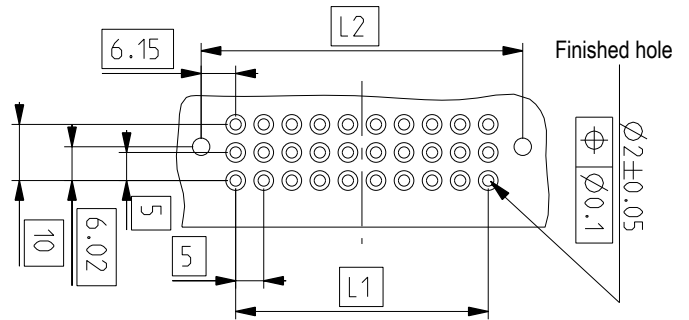
DIMENSIONS - mm(in.)

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 |
|-------------|----------------------------------|
| PM309MRAOSB | 3x3 MALE Right Angle PCB Solder |
| PM312MRAOSB | 3x4 MALE Right Angle PCB Solder |
| PM318MRAOSB | 3x6 MALE Right Angle PCB Solder |
| PM324MRAOSB | 3x8 MALE Right Angle PCB Solder |
| PM330MRAOSB | 3x10 MALE Right Angle PCB Solder |

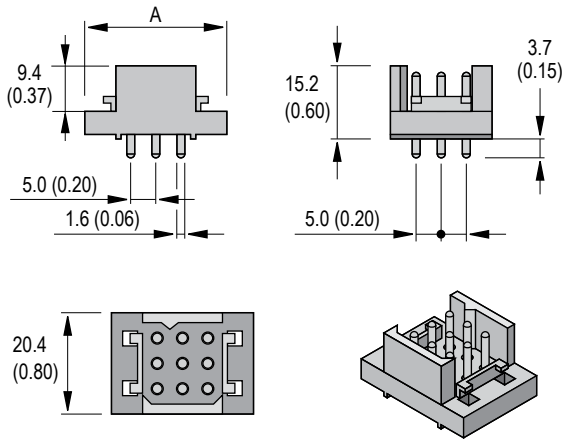
Right Angle PCB Bracket With Hole & No Latch

| 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.

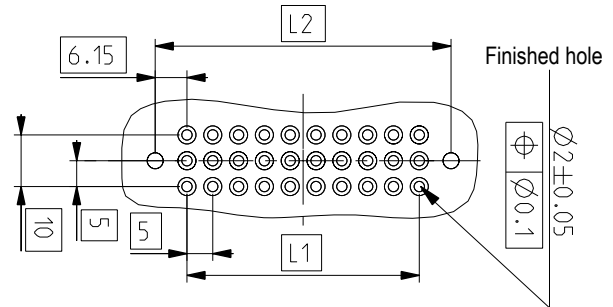
DIMENSIONS - mm(in.)

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 |

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