



# **PB** POWERBOSS™ M29

## Three-Phase Control Power Receptacles and Cable Assemblies



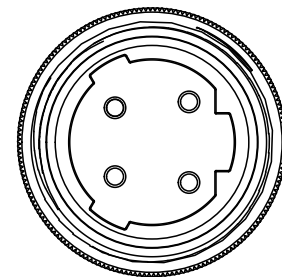
**Amphenol Sine Systems** continues to build upon an extensive range of factory molded Three-Phase and Control Power industrial connectivity with the new **PowerBOSS™ M29** 25A/29A 600V cable media. Ideally suited for quick connection of distributed motor controllers, industrial automation applications in which power requirements are exposed to long-term physical stresses, and subjected to liquids or oils. These IP68 protection class connectors provide an alternative to "hard-wiring" ensuring consistent, low resistance connection points reducing downtime, easier maintenance and increased safety.

### Applications

- VFD Drive and Motor Connections
- Industrial Conveyors
- Sortation Systems
- Material Handling
- Food & Beverage
- Automotive
- Commercial/Industrial Light Displays
- Load Cells
- Pumps
- Solar Panels
- Solenoid Operated Valves

### Advantages

- Eliminates the need for "pipe and wire" conduit
- Rated for Motor Branch Circuits
- Meets UL2237/UL2238 for Industrial Machinery / UL approved as an assembly
- 65 Ka High Fault Rating (SCCR)
- Straight or right angle over-molded connector options.
- Multiple standard lengths available
- Decreases wiring errors with inherent molded "plug & play design"
- Compact M29 (1.14") sizing minimizes panel space & wiring requirements
- Molded key indicator ensures keyway alignment of mating connector
- Gold over nickel contact plating provides low capacitance design and corrosion resistance
- Superior receptacle-to-wire leads epoxy potting ensures reliability by preventing conductor pull-out
- High performance, long-lasting plating that maintains low resistance through repeated mate/unmate cycles



**DPC** Distributed Power & Control  
**FA** Factory Automation



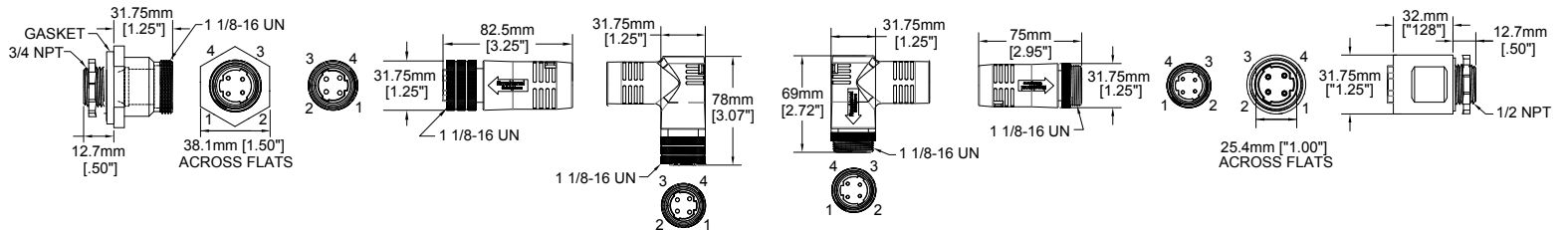
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Customer Service +1 800 394 7732

**Technical Specifications-Cable**

Jacket	TPE, Black
Number of Conductors	(Qty 4) 12AWG (4 mm <sup>2</sup> )
Insulation	XLPE (plus)
Shielding	Triple Layer Foil Tape: 100% Coverage Braid: 85% Coverage
Minimum Bend Radius	7.5 x Cable Diameter
Cable Nominal O.D.	0.656 in. / 16.7 mm
Temperature Range	UL/CSA TC: -25°C to +90°C; For Stationary Use: -40°C to +105°C; For Flexible Use: -25°C to +105°C
Conductor Stranding	Class 5 Fine Wire
Color Code	(3) Black w White Numbers, plus (1) Green/Yellow Ground
Approvals	UL: TC-ER per UL 1277
Attributes	UL Oil Res I/II; 90°C Wet or Dry; -40°C Cold Bend; -25°C Cold Impact; Sunlight Resistant; Direct Burial; NFPA 79 2015
NEC	Class 1 Division 2 per NEC Article 501
Canadian Approvals	c(UL) CIC/TC FT4; cRU AWM I/II A/B FT4
Additional Approvals	CE (50V – 1kV) & RoHS
Agency Approvals	UL Recognized File #E339703

**Technical Specifications-Connector**

Number of Contacts	4
Contacts	Gold flash plating over copper alloy
Voltage Rating	600V AC
Insulation Resistance (Min)	5000M OHMS
Dielectric Test Voltage	2200V
Amperage Rating	25A per UL / c(UL)2237 29A per UL / c(UL)2238
IP Rating	IP68 - Type 4-12 24Hrs @ 1 Meter
Materials	Body: PVC; Coupler: Machined steel, nickel plated
Sealing	Silicone
Mating Cycles	>500



**Part Number Overview-PowerBOSS™ M29**

Amphenol Sine Systems Part Number	Comparable Allen-Bradley Part Number	Description
P31383-MXX	284-PWRM29G-MXX	PowerBOSS™ M29 (1.14"), Power Cable, Male Straight, Shielded, 4 Conductor, 12AWG Cable Assy, TPE
P31384-MXX	-	PowerBOSS™ M29 (1.14"), Power Cable, Male 90°, Shielded, 4 Conductor, 12AWG Cable Assy, TPE
P31385-MXX	-	PowerBOSS™ M29 (1.14"), Power Cable, Female straight, Shielded, 4 Conductor, 12AWG Cable Assy, TPE
P31386-MXX	-	PowerBOSS™ M29 (1.14"), Power Cable, Female 90°, Shielded, 4 Conductor, 12AWG Cable Assy, TPE
P31387-MXX	284-PWRM29A-MXX	PowerBOSS™ M29 (1.14"), Power Cable, Male to Female, Shielded, 4 Conductor, 12AWG Cable Assy, TPE
P31388-MXX	-	PowerBOSS™ M29 (1.14"), Power Cable, Male Straight to Female 90°, Shielded, 4 Conductor, 12AWG Cable Assy, TPE
P31389-MXX	-	PowerBOSS™ M29 (1.14"), Power Cable, Male 90° to Female Straight, Shielded, 4 Conductor, 12AWG Cable Assy, TPE
P31390-MXX	-	PowerBOSS™ M29 (1.14"), Power Cable, Male 90° to Female 90°, Shielded, 4 Conductor, 12AWG Cable Assy, TPE
P31532-MXX	-	PowerBOSS™ M29 (1.14"), Power Cable, Male to Female, Shielded, 4 Conductor, 12AWG Cable Assy, Highflex, TPE

All PowerBOSS™ M29 part numbers listed above and ending in -MXX are available in 0.5, 1, 1.5, 2, 3, 4, 6, 8, 10, 12 and 14 Meter (M) lengths.

P31407-MX	284-M29M-MX	PowerBOSS™ M29 (1.14"), Power Receptacle, Male, Qty 4, 12AWG, UL1015 Wire Leads, 3/4" NPT Thread
P31443-MX	284-M29F-MX	PowerBOSS™ M29 (1.14"), Power Receptacle, Female, Qty 4, 12AWG, UL1015 Wire Leads, 1/2" NPT Thread

All PowerBOSS™ M29 part numbers listed above and ending in -MX are available in 1, 2 and 3 Meter (M) lengths.

**For more information, contact: Customer Service, +1 800 394 7732, csr@amphenol-sine.com**