

**New generation external-thread DIN Valve Connectors with unsurpassed IP67 sealing properties and superior cable retention increase performance and reliability, simplify the manufacturing process and reduce overall applied costs for hydraulic, pneumatic and electromagnetic devices**

Brad mPm DIN valve connectors conform to industry standard EN 175301-803 (formerly DIN 43650). This is the standard for a series of electrical connectors which are commonly used with solenoid valves, especially those used on valves in hydraulics and pneumatics.

Molex's innovative external-nut design reduces the number of individual components within the DIN valve connector to simplify assembly and mounting processes. Since the housing of the new design does not protrude past the toe of the nut, the external width of the connector has not increased and thus has no impact on the customer's application.

Traditional DIN connectors are supplied to the customer pre-assembled, requiring disassembly before terminating the cable is possible. The new generation of DIN connectors from Molex are supplied in single sets, or as bulk components, further reducing labour time and costs.

Standard circuitry options available include light-emitting diode (LED) and bi-polar LED indicators, blocking diodes to protect against overvoltage or peaks when switching off and voltage-dependent resistors (VDR) to protect supply and switch. For additional information visit: [www.molex.com/link/dinvalve.html](http://www.molex.com/link/dinvalve.html)

**Brad® mPm® DIN Valve Connectors External Thread, Field Attachable**

- 121201 DIN Form A
- 121207 DIN Form A + Circuit
- 121202 DIN Form Industrial
- 121208 DIN Form Industrial + Circuit
- 121203 DIN Form B
- 121204 DIN Form C
- 121205 DIN Form Micro



External Thread, Field Attachable mPm® DIN Valve Connectors

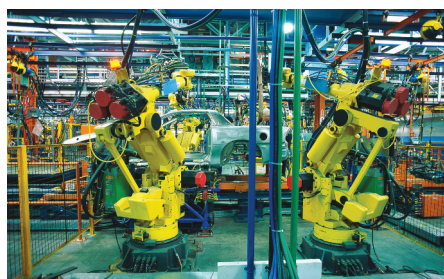


**FEATURES AND BENEFITS**

- Ergonomic external-nut design provides greater and consistent torque for a more uniform seal between connector and cable
- Conforms to industry standard interface EN 175301-803 (formerly DIN 43650)
- Cable retention force increased by up to 115% over internal-nut designs for increased reliability
- Integrated 'self-retaining' front gasket within housing on Form A, Form B and Form Industrial ensures IP67 sealing properties are achieved
- Waterproof rating of IP67; improved from IP65 for a greater range of application opportunities
- Internal volume of Form C housing increased by 30% with no change to external dimensions of connector; improves handling, wire routing and speed of assembly
- Accommodates PG9, PG11 cable and up to 9.00mm (.354") outer cable diameter
- Connectors supplied in a 'ready-to-use' disassembled condition; saves the customer an estimated 20 seconds disassembly time per part
- One size fits all cables! Reduces customer inventory, contributing to cost savings; eliminates installation errors
- Plus / minus screw head on terminal enables the use of air tools in volume production; a flat or Phillips-head screwdriver can be used by the installer in a field application

**MARKETS AND APPLICATIONS**

- Industrial
  - Pneumatic valves
  - Hydraulic valves
  - Solenoid valves
  - Pressure switches
  - Transducers
  - Mining machinery
- Factory automation
  - Robotics
  - Complex machine builders
- Non-automotive transportation
  - Garbage trucks
  - On-vehicle crane and lifting equipment
- Used across all markets where signal and power connections are required to perform in a rugged environment



Robotics



Pressure valves



Hydraulics in construction equipment and garbage trucks

## SPECIFICATIONS

### Reference Information

Packaging: Single pack or bulk components  
 UL file No: E218123  
 RoHS: Yes  
 Halogen Free: Yes  
 Glow Wire Compliant: Available  
 Protection class: IP67 EN60529

### Electrical

Voltage (max.): 250V AC  
 300V DC  
 Current (max.): 16.0A  
 Contact Resistance:  $\leq 4$  milliohms max.  
 Insulation Resistance: 100 Megaohms min.  
 Max. conductor: 1.50mm<sup>2</sup> / 16 AWG

### Mechanical

Insertion and Withdrawl Force: 2 + PE  $\leq$  60N  
 3 + PE  $\leq$  80N  
 Durability (min.): 50 cycles

### Physical

Housing: Glass Filled Polyamide  
 Contact: Yellow Brass (Cu)  
 Plating: Silver (Ag)  
 PCB Thickness: 0.90mm (.0354")

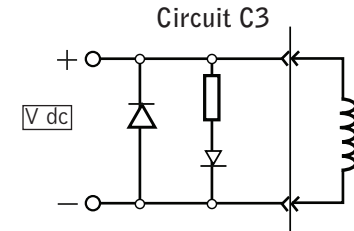
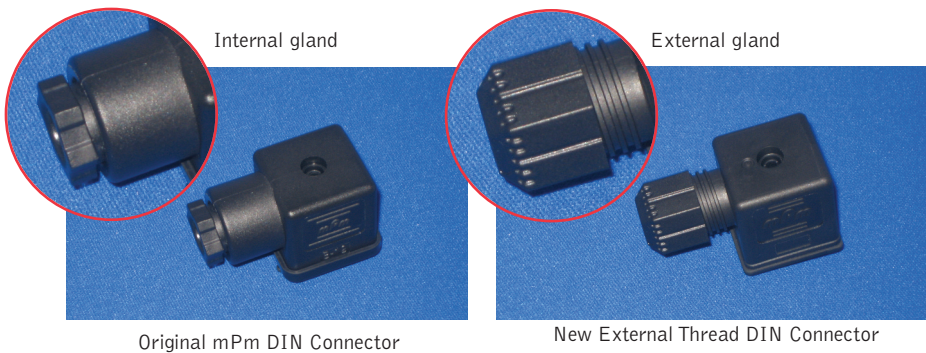
Operating Temperature - Gasket material:  
 Nitrile Rubber (NBR): -40°C to +90°C  
 Silicone: -40°C to +125°C

Cable Range: Outer diameter: 4.00 to 9.00mm (.157" to .354")

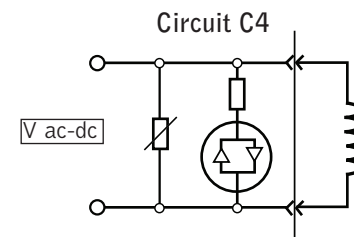
Contact Distance:  
 Form A: 18.00mm (.709")  
 Form Industrial: 11.00mm (.433")  
 Form B: 10.00mm (.394")  
 Form C: 8.00mm (.315")  
 Form Micro: 9.40mm (.370")

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- 121202 DIN Form Industrial
- 121208 DIN Form Industrial + Circuit
- 121203 DIN Form B
- 121204 DIN Form C
- 121205 DIN Form Micro



With LED plus blocking diode to protect against overvoltage when switching off



Bipolar LED and VDR to protect supply and switch (The energy in the coil is limited by the VDR)

## ORDERING INFORMATION

Order No.	Engineering No.	Form	Product Attribute	Packaging	Circuitry*	Minimum Order Quantity (Pcs.)
1212010001	C28200NOR	DIN Form A	2-Pole	Single	-	100
1212010003	C28200NORCN			Bulk		
1212010002	C28300NOR		3-Pole	Single		
1212070001	S28200TC320R	DIN Form A + Circuit	2-Pole	Single	Circuit C3 24V RED LED	
1212070004	S28200TC420R				Circuit C4 24V RED LED	
1212020001	C22200NOR	DIN Form Industrial	2-Pole	Single	-	
1212020002	C22200NORCN			Bulk		
1212080001	S22200BC432RSN	DIN Form Industrial + Circuit	2-Pole	Bulk, mounted	Circuit C4 48V RED LED	
1212030001	C92200NOR	DIN Form B	2-Pole	Single	-	300
1212040001	C25200NOR	DIN Form C	2-Pole	Single	-	
1212040009	C25200NORCN			Bulk		
1212040005	C25300NOR		3-Pole	Single		
1212050001	C29200NOR	DIN Form Micro	2-Pole	Single	-	
1212050009	C29200NORCN			Bulk		
1212050005	C29300NOR		3-Pole	Single		

\*Circuitry – Please refer to schematic diagrams shown above. Form B, C and Micro are also available with circuitry – contact your Molex representative for more information