

canfield  
connector

Surge Suppression

# P5600 SERIES

MINI, ISO AND SUB-MICRO  
MICRO PROTECTIVE  
SOLENOID VALVE CONNECTORS

## GENERAL DESCRIPTION

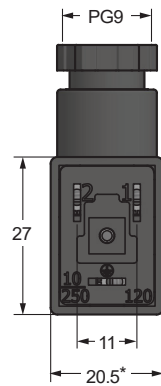
The Canfield Connector P5600 Series Micro Protective Connectors are a complete line of field wire style solenoid valve connectors that are offered with internal surge suppression and indicators light options. The connectors are made to meet EN175301-803 (Formerly DIN 43650) solenoid valve connector standards in all styles and configurations. The rugged design features integrated cable strain reliefs or conduit versions. The surge suppression can be tailored to need with 6 distinct versions. These connectors are designed to work seamlessly with your choice of solenoid valve.



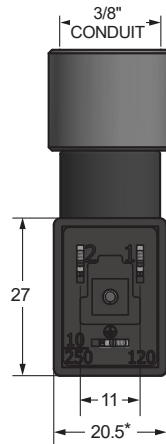
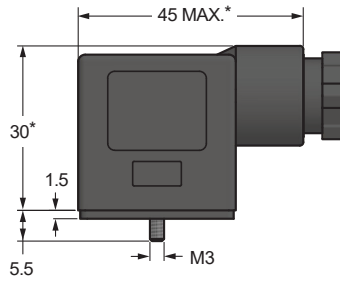
MINI PG9, Lighted version shown above

## DIMENSIONAL DATA

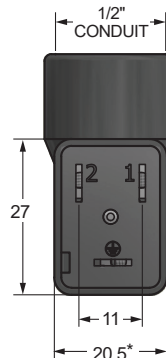
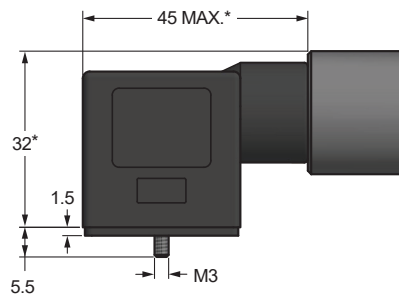
All dimensions are in millimeters unless otherwise noted.



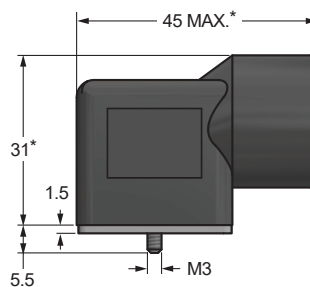
MINI - PG9  
Ground Down Shown



MINI - 3/8\" CONDUIT  
Ground Down Shown



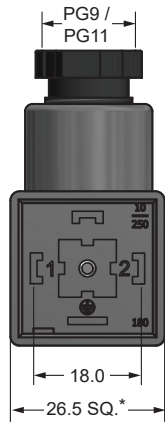
MINI - 1/2\" CONDUIT  
Ground Down Shown



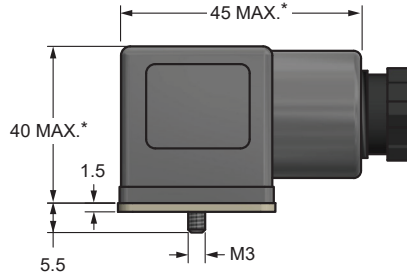
\*Dimensions subject to change notice.  
For critical specifications, contact factory.

## DIMENSIONAL DATA CONT.

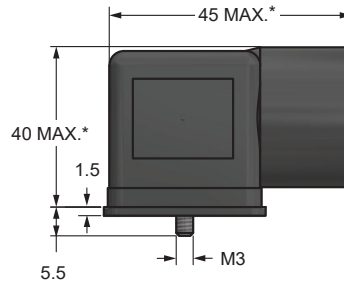
All dimensions are in millimeters unless otherwise noted.



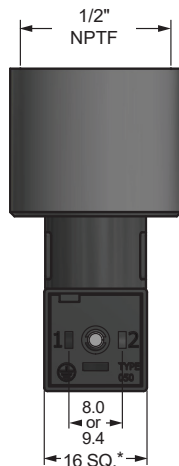
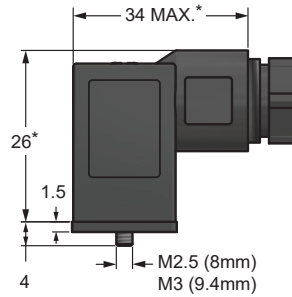
**ISO - PG9 / PG11**  
Ground Down Shown



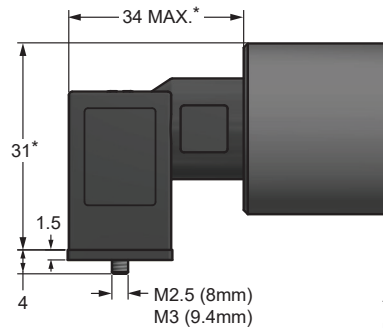
**ISO - 1/2" CONDUIT**  
Ground Down Shown



**SUB-MICRO - PG7**  
Ground Down Shown



**SUB-MICRO - 1/2" CONDUIT**  
Ground Down Shown



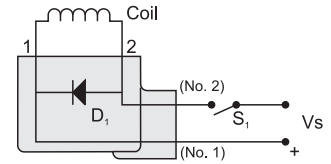
\*Dimensions subject to change notice.  
For critical specifications, contact factory.

# MPC TYPES

## TYPE 1\*

- Increases drop out time
- Works only with DC voltage
- Polarity dependent
- Supply and switch are protected

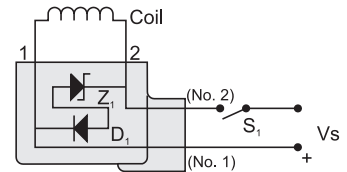
Diode in parallel with coil. When switch ( $S_1$ ) is opened, the energy stored in the coil is trapped and dissipated by the diode ( $D_1$ ).



## TYPE 2

- Exact limitation of inductive spikes
- Works only with DC voltage
- Polarity dependent
- Supply and switch are protected

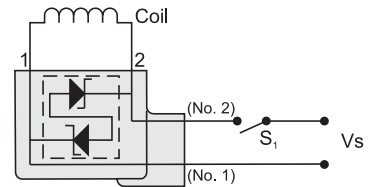
Diode & Zener in parallel with coil. When switch ( $S_1$ ) is opened, the energy stored in the coil is trapped and dissipated by the diode ( $D_1$ ) and zener diode ( $Z_1$ ) and the coil resistance.



## TYPE 3

- Good drop out time
- Works with AC or DC voltage
- NOT polarity dependent
- Coil, supply and switch are protected

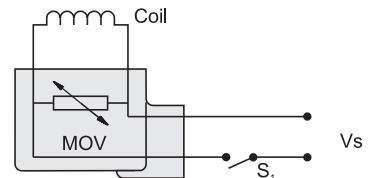
Transorb in parallel with coil. When switch ( $S_1$ ) is opened or closed, the energy stored in the coil is limited by transorb.



## TYPE 5\*

- Good drop out time
- Works with AC or DC voltage
- NOT polarity dependent
- Coil, supply and switch are protected

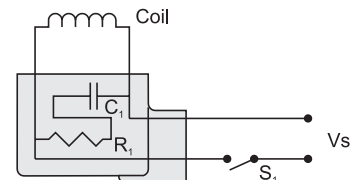
MOV (metal oxide varistor) in parallel with coil. When switch ( $S_1$ ) is opened or closed, the energy stored in the coil is limited by the MOV.



## TYPE 6

- Good drop out time
- Works with AC or DC voltage
- NOT polarity dependent
- Coil, supply and switch are protected

RC Network in parallel with coil. When switch ( $S_1$ ) is opened or closed, the energy stored in the coil is absorbed by the capacitor ( $C_1$ ) and dissipated by the resistor ( $R_1$ ).



\*Most Commonly Used

# TECHNICAL DATA

<b>Current Max.</b>	Sub-Micro: 6 Amps ISO / MINI: 10 Amps
<b>Voltage Max.</b>	240 VAC, 120 VDC
<b>Materials</b>	Housing: PA, Black; Gray; Translucent (lighted versions)
<b>Gasket Temperature Max.</b>	Nitrile: -25° to +90°C Silicone: -40° to +125°C
<b>Environmental Protection</b>	Designed for IP 65 / NEMA 4 Dust tight and water resistant
<b>Cable Diameter</b>	PG7: 0.157" to 0.236" O.D. PG9: 0.236" to 0.315" O.D. PG11: 0.315" to 0.394" O.D. 1/2" Conduit 0.410" maximum
<b>Wire Gauge</b>	ISO / MINI: 14 AWG Max. Sub-Micro: 20 AWG Max.
<b>Size</b>	ISO: 18mm pin spacing - DIN Style "A" EN175301-803 MINI: 11mm pin spacing - Industry Standard Sub-Micro: 8mm pin spacing - DIN Style "C" EN 175301-803 Sub-Micro: 9.4mm pin spacing - Industry Standard
<b>Number of Contacts</b>	MINI: 2+ ground ISO / Sub-Micro: 2 contacts + 2 grounds

NOTE: Slight discoloration may occur to translucent material after prolonged exposure to UV rays.  
NOTE: When using MAC Valves with MINI and 9.4mm Sub-Micro, consult our factory.

# WIRING INFORMATION

Terminal Configuration	
	Chassis Ground
1	(+) Pos. / High
2	(-) Neg. / Neut.

# ORDERING INFORMATION

Each connector kit contains screw, washer and gasket assembly.



Use a prefix of "G" for Individually Bagged

P 5 0 - 0 0 0 0 0 0

**Orientation**  
1 - Ground down  
*Additional ground orientations available*

**Operating Voltage**  
3 - 6 - 48 VDC  
4 - 48 - 120 VDC  
5 - 6 - 48 V AC/DC 50/60 Hz  
6 - 48 - 120 V AC/DC 50/60 Hz  
7 - 120 - 240 V AC/DC 50/60Hz

**Gasket**  
0 - No Gasket  
1 - Nitrile  
2 - Silicone  
3 - Nitrile profile<sup>††</sup>  
<sup>††</sup>NOT available in Sub-Micro

**Connector Type**  
3 - MINI strain relief PG9  
4 - MINI 3/8" conduit  
5 - MINI 1/2" conduit  
6 - ISO strain relief PG9  
7 - ISO strain relief PG11  
8 - ISO 1/2" conduit  
B - Sub-Micro strain relief PG7 (9.4mm)\*\*  
C - Sub-Micro 1/2" conduit (9.4mm)\*\*  
D - Sub-Micro strain relief PG7 (8mm)\*\*  
E - Sub-Micro 1/2" conduit (8mm)\*\*  
**\*\*MPC Circuits 1 & 5 only**

**Housing Color**  
0 - Black "B" standard. Translucent if lighted.  
1 - Gray "A"

**Lighting Specification**  
0 - Unlighted  
1 - Lighted

**MPC Circuit**  
1 - Diode (DC Only)  
2 - Diode & Zener diode (DC Only)  
3 - Transorb (AC/DC)  
5 - MOV (AC/DC)  
6 - RC network (AC/DC)

**Ordering Example:** P5103-1311000

Ground down, 6-48 VDC, nitrile gasket, MINI strain relief PG9, diode, lighted