

P802 SERIES

PRESSURE TRANSDUCER



DESCRIPTION

The Whitman Controls P802 Series Pressure Transducers are all-welded stainless steel sensors with pressure ranges up to 20,000 psig. These devices are highly configurable allowing use across a range of media and applications. These units are ideal in more rugged environments where accuracy of measurement is critical.

KEY FEATURES

- All-welded stainless steel sensor and pressure connection
- Highly configurable; wide selection of pressure connections and electrical terminations
- Field proven polysilicon thin film pressure sensor
- Pressure Ranges: -14.7 psig - 20,000 psig

PERFORMANCE SPECIFICATIONS

Reference Temperature	72°F ±2°F (21°C ±1°C)
Accuracy Class (BFSL):	± 0.25% of span
Total Error Band Accuracy (TEB):	<p>±1% of Span: From -20 to 85°C (-4 to 185°F)</p> <p>±1.5% of Span: From -40 to -20°C (-40 to -4°F)</p> <p>±1.5% of Span: From 85 to 125°C (185 to 257°F)</p> <p>Includes the combined effects of non-linearity (Terminal Point Method), hysteresis, non-repeatability, temperature and zero offset and span setting errors</p>
Stability:	≤ ±0.25% of span/year
Durability	50 million cycles
Approvals	CE, UL (UL 61010-1), (CSA 222 6101-1) UL Recognized component per UL-610101, and CSA 22.2 6101-1, Electrical Equipment for Measurement, Control and Laboratory use

ENVIRONMENTAL SPECIFICATIONS

Temperature Limits:	Storage:	- 40°F to 257°F (-40°C to +125°C)
	Operating:	- 40°F to 257°F (-40°C to +125°C)
	Compensated:	- 40°F to 257°F (-40°C to +125°C)
Humidity Effects:	0 to 100% R.H., no effect	

FUNCTIONAL SPECIFICATIONS

Vibration Effects:	Random vibration (20 g) over temperature range (-40°C to 125°C)	
Shock Effects:	100 gs, 6 ms	
Drop Test:	Withstands 1 meter on concrete	
Response Time:	< 1 msec	
Warm-up Time:	< 500 msec	
Position Effect:	< ±0.01% span	
Overpressure (F.S):	Proof	Burst
≤750 psi	2 X Range	10 X Range
≥1,000 to ≤4,000 psi	2 X Range	5 X Range
≥5,000 to ≤7,500 psi	1.5 X Range	5 X Range
≥10,000 to ≤20,000 psi	1.2 X Range	2.4 X Range

ELECTRICAL SPECIFICATIONS

Reverse Polarity & Miswired Protected:	Yes
Insulation Breakdown Voltage:	100 Vac
Insulation Resistance:	100 Mh @ 100 Vdc
Circuit Protection:	Reverse polarity and miswire protection

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OUTPUT SIGNALS AVAILABLE

Voltage Output	Excitation	Supply Current
0-5 Vdc, 3 wire	9-36 Vdc	5 mA
0-10 Vdc, 3 wire	14-36 Vdc	5 mA
1-5 Vdc, 3 wire	9-36 Vdc	4 mA
1-6 Vdc, 3 wire	9-36 Vdc	4 mA
0.5-4.5 Vdc, 3 wire	9-36 Vdc	4 mA

Ratiometric Output

0.5-4.5 Vdc, 3 wire	5 Vdc	3.5 mA
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Current Output

4-20 mA, 2 wire	9-36 Vdc
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ENVIRONMENTAL RATING

Rating	Electrical Connections
IP67, NEMA 4X	Metri-Pack, Shielded cable, Flying leads Deutsch DT & DTM, AMP Superseal and M12
IP65, NEMA 4X	Hirschmann G, EN 175301-803 Form A & C (DIN 43650 A & C)

WETTED COMPONENTS

Diaphragm	17-4PH Stainless steel
Process Connection	304 Stainless steel

NON-WETTED COMPONENTS

Housing	20% Glass Reinforced Nylon, Fire retardant to UL94 V1
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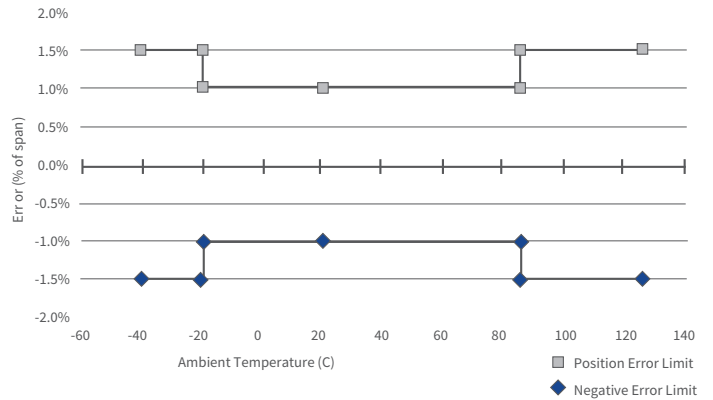
OPTIONAL FEATURES

Electrical Termination:	See Ordering Code
Consult Factory For:	Pressure range options, process connection locations, approval descriptions

TOTAL ERROR BAND (TEB)

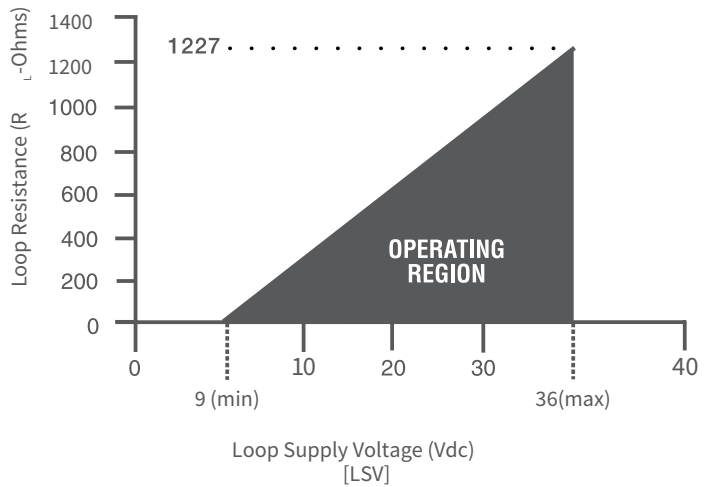
Error limits of all points (0-100% of range)

TOTAL ERROR BAND (TEB)



POWER SUPPLY & LOAD RESISTANCE

Power Supply Voltage vs. Loop Resistance
(4-20 mA ONLY)

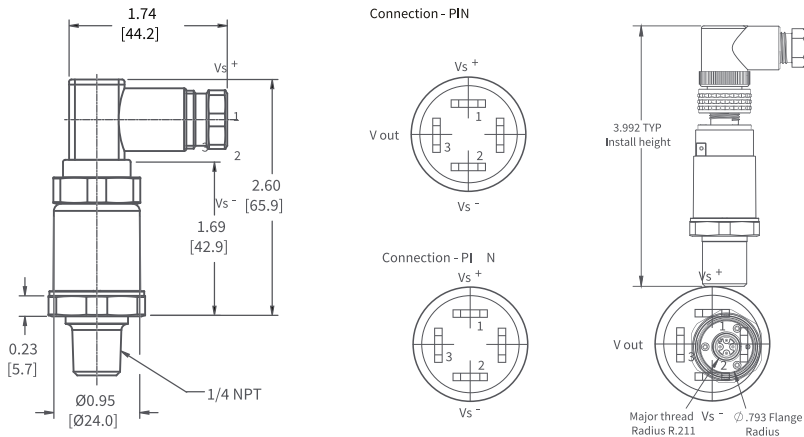


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DIMENSIONS IN () ARE MILLIMETERS

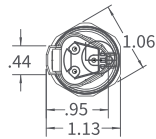
For reference only, consult Whitman Controls for specific dimensional drawings



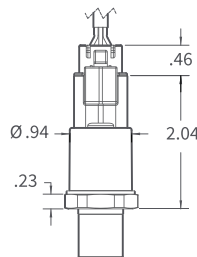
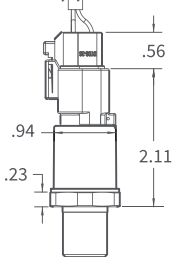
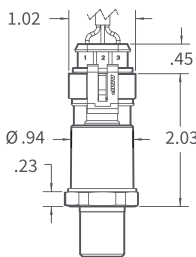
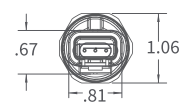
AMP SUPERSEAL



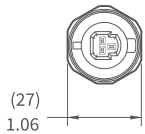
DEUTSCH DT04-3P



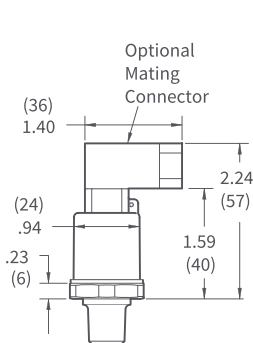
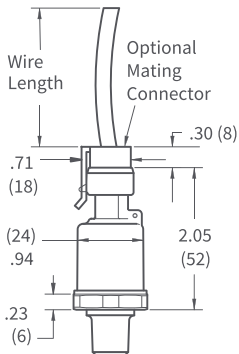
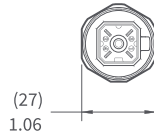
DEUTSCH DTM04-3P



3-PIN METRI-PACK*



MINI HIRSCHMANN**



Mates to Metri-Pack Connector Body 12065286

Mates to Hirschmann G4W1F Connector or Similar

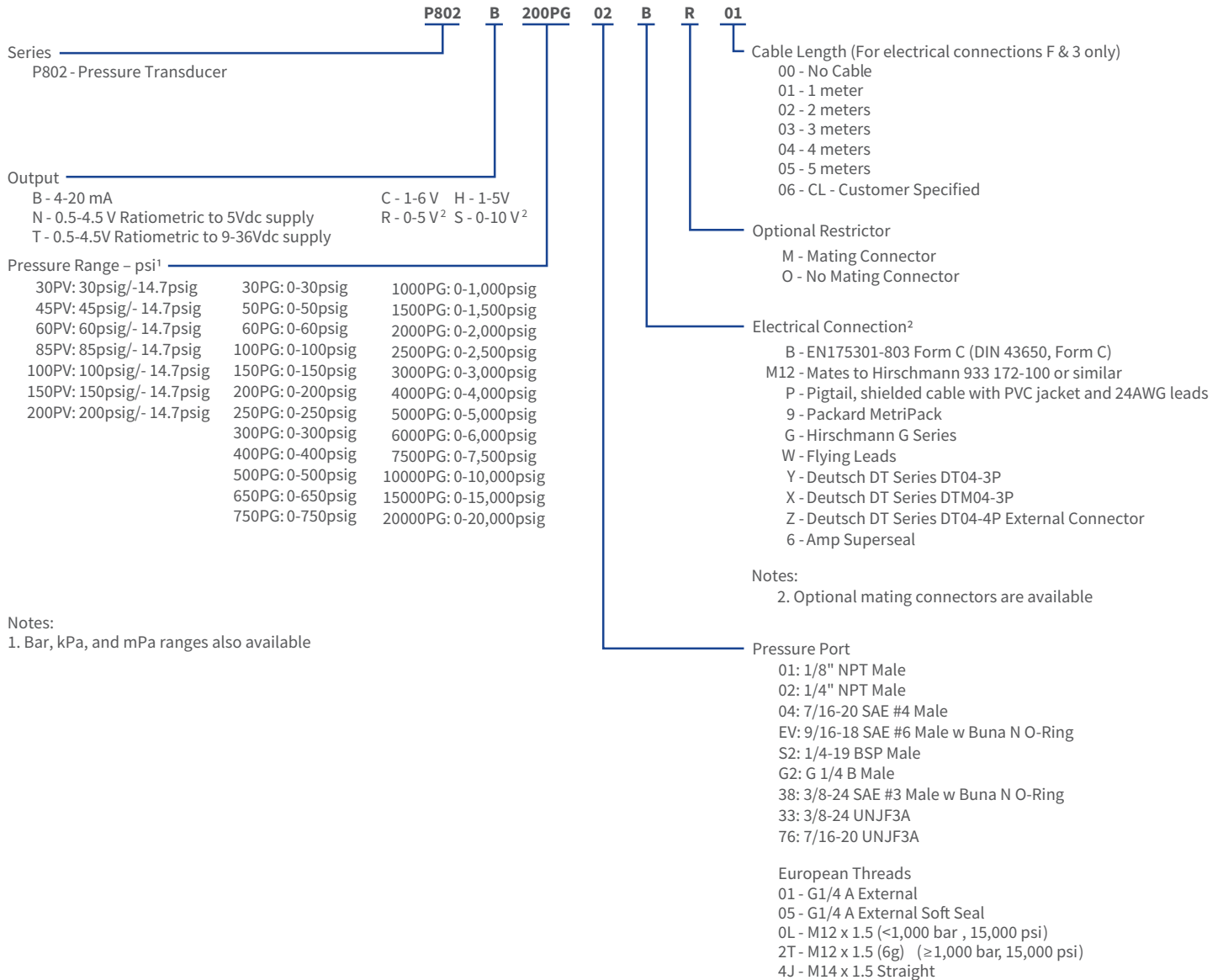


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ORDER GUIDE

Use the bold characters from the chart below to construct a product code



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