

P806 SERIES

PRESSURE TRANSMITTER

FEATURES

- Numerous ranges, process connections/electrical terminations, and outputs available (STD.)
- All stainless steel wetted parts
- Proven polysilicon film sensor
- All welded construction

TYPICAL USES

- Process automation
- Compressor control
- Hydraulic systems
- Engine monitoring
- Pump control
- Pneumatics
- Refrigeration equipment
- Presses
- Machine tools
- Other general industrial applications



P806 Pressure Transmitter

PERFORMANCE SPECIFICATIONS

Reference Temperature:	72 °F (22 °C)
Accuracy Class (BFSL):	±0.25% of span
Total Error Band Accuracy (TEB):	±1% of Span: From -20 to 85 °C (-4 to 185 °F) ±1.5% of Span: From -40 to -20 °C (-40 to -4 °F) ±1.5% of Span: From 85 to 125 °C (185 to 257 °F) Includes the combined effects of non-linearity (Terminal Point Method), hysteresis, non-repeatability, temperature and zero offset and span setting errors
Durability:	50 million cycles
Stability:	≤±0.25% span/year at reference conditions

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:	No performance effects from 0-100% R.H.

KEY BENEFITS

- Broad temperature capability
- High EMI/RFI immunity ratings
- High performance ASIC based electronics
- Superior long-term stability and repeatability

FUNCTIONAL SPECIFICATIONS

Response Time:	<1 ms
Pressure Ranges:	Compound and gauge pressure, 30 to 20,000 psi
Shock:	100 gs, 6 ms
Vibration:	Random vibration (20 g) over temperature range -40 °F to 257 °F (-40 °C to 125 °C). Exceeds typical MIL. (STD.) requirements
Position Effect:	<±0.01% span, typical
Overpressure:	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: 1.2 X Range 5 X Range ≥10,000 to ≤20,000 psi: 1.2 X Range 2.4 X Range
Drop Test:	Withstands 1 meter on concrete 3 axis
Warm-up Time:	<500 msec, typical

ELECTRICAL SPECIFICATIONS

Output:	Supply Voltage	Supply Current
0-5 Vdc (3 Wire)	9 Vdc to 36 Vdc	5 mA
0-10 Vdc (3 Wire)	14 Vdc to 36 Vdc	5 mA
1-5 Vdc, 1-6 & 0.5-4.5 Vdc (3 Wire)	9 Vdc to 36 Vdc	4 mA
0.5-4.5 Vdc, 3 Wire(Ratiometric)	5 Vdc ±0.5 Vdc	3.5 mA
4-20 mA (2 Wire)	9 Vdc to 36 Vdc	
Insulation Breakdown Voltage:	>100 MΩ @ 100 Vdc	
Circuit Protection:	Reverse polarity and mis-wire protected	
Insulation Resistance:	100 MΩ @ 30 Vdc	

PHYSICAL SPECIFICATIONS

Environmental Rating:

Ingress rating NEMA 4X, IP65

WETTED MATERIAL

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

NON-WETTED

Housing

20% Glass Reinforced Nylon, Fire retardant to UL94 V1

OPTIONAL FEATURES

Calibration Report:	Consult factory for:
9 pt. Traceable calibration certificate	Throttle plugs and Cleaned for Oxygen services

LOAD LIMITATIONS 4-20 mA OUTPUT ONLY

To Determine Min. loop supply voltage: $LSV_{Min} = 9(V) + [0.022(A) * RL]$

Where:

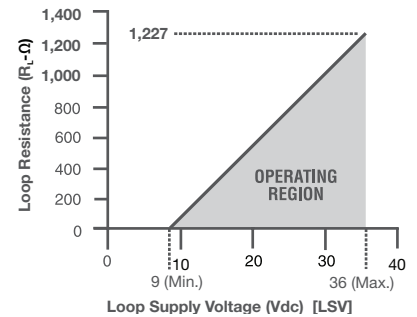
LSV = Loop Supply Voltage (Vdc)

RL = RS+ RW (ohms)

RL = Loop Resistance (ohms)

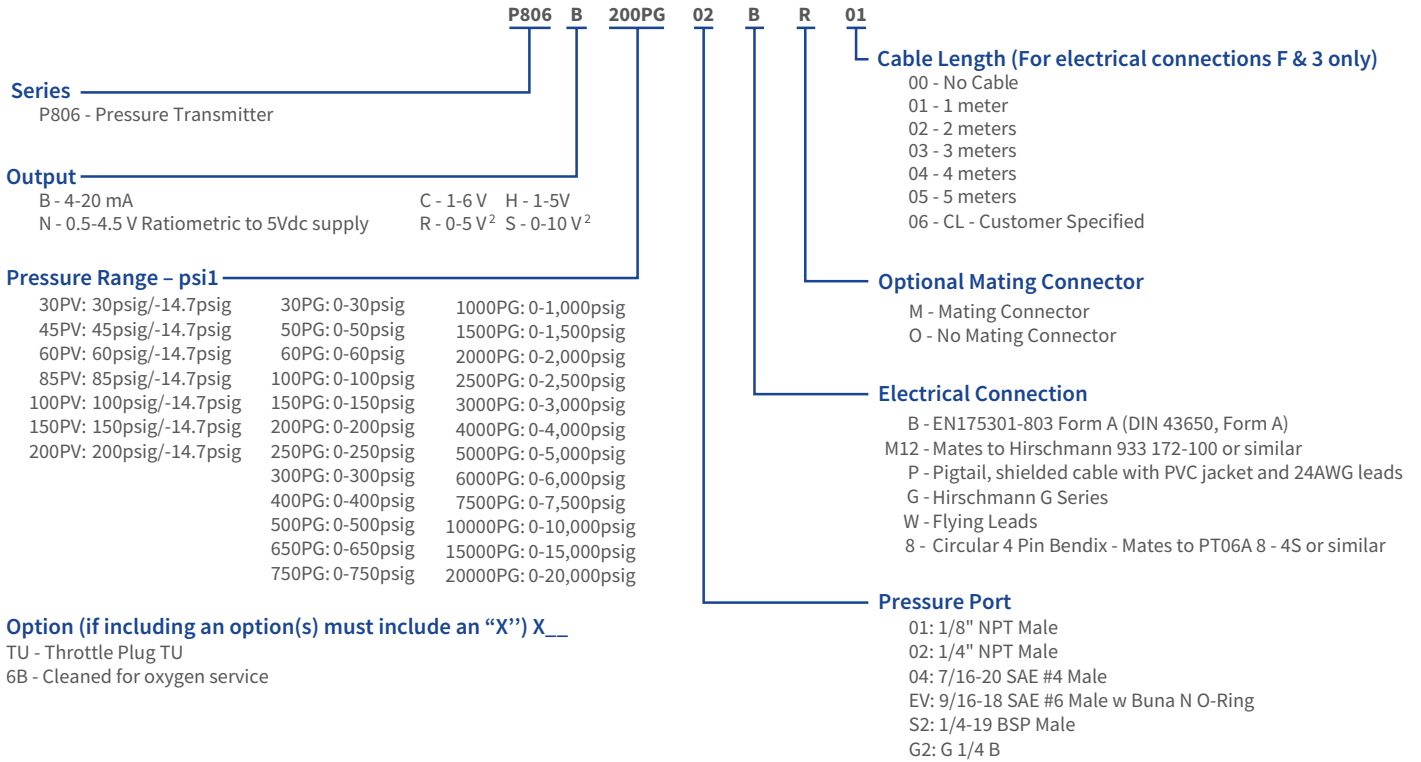
RS = Sense Resistance (ohms) [Measuring Instrument]

RW = Wiring Resistance (ohms)



DATA SHEET

P806 Pressure Transmitter



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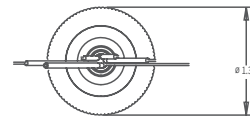
RANGE TABLE

DIMENSIONS IN [] ARE MILLIMETERS

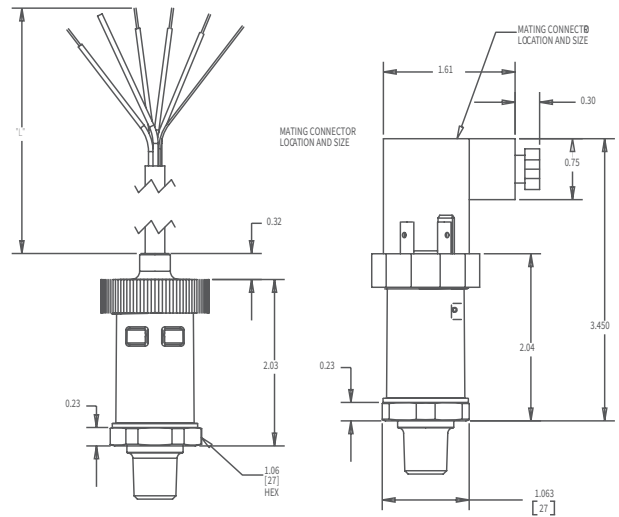
	Pressure Range	Output	Notes
Compound	30 psi/-14.7 psi	30#&vac	
	45 psi/-14.7 psi	45#&vac	
	60 psi/-14.7 psi	60#&vac	
	85 psi/-14.7 psi	85#&vac	
	100 psi/-14.7 psi	100#&vac	
	150 psi/-14.7 psi	150#&vac	
	200 psi/-14.7 psi	200#&vac	
	300 psi/-14.7 psi	300#&vac	
	500 psi/-14.7 psi	500#&vac	
	Positive Pressure	30 psi	30#
50 psi		50#	
60 psi		60#	
100 psi		100#	
150 psi		150#	
200 psi		200#	
250 psi		250#	
300 psi		300#	
400 psi		400#	
500 psi		500#	
750 psi		750#	
1,000 psi		1000#	
1,500 psi		1500#	
2,000 psi		2000#	
3,000 psi		3000#	
5,000 psi		5000#	
6,000 psi		6000#	
7,500 psi		7500#	
10,000 psi		10000#	
15,000 psi		15000#	Only available with M01, M02, MG2,
20000	20,000# psi	Only available with M01, M02, MG2,	

bar, kPa, and mPa ranges also available

Shielded Cable
PVC Jacket, 3' Length
Standard 24 AWG Leads



Din Form A
Mates to Hirschmann
GDM 3009 or similar



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