

Type-5000

P/I Transducers

FEATURES

- 0.1% accuracy typical
- Piezo resistive pressure sensor resists vibration
- Mounts at any angle
- Easily accessible zero and span adjustments
- NEMA 4X housing approved for explosion proof service

DESCRIPTION

The Type 5000 series is a compact, rugged and reliable family of two-wire pressure transmitters designed for industrial field service. These instruments convert a signal pressure input into a precise 4-20 or 10-50mA output. The lightweight transmitter housing includes a 1/4" NPT pressure port and a 1/2" NPT conduit port for field wiring. Connections are easily accessible simply by removing the top cover. Zero and span adjustments are available within the field wiring compartment for fine, on-site calibration adjustment.

The Type 5000 uses a unique, temperature compensated piezo resistive sensor suitable for gauge pressure measurement of non-corrosive liquids and gases. The sensor has excellent dynamic response and is virtually insensitive to mounting orientation and ordinary industrial vibration.

Mounting holes on the transmitter housing are arranged to permit direct pipe (2") mounting for minimum installed cost.

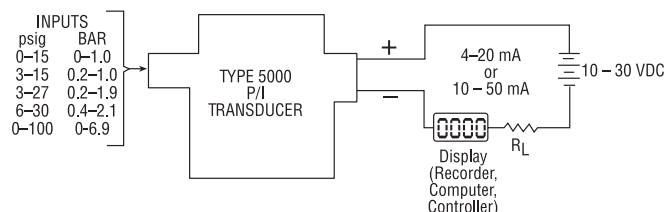
NEMA 4X ENCLOSURE

The Type 5000 transducers have been certified by Factory Mutual Research as meeting the requirements for NEMA 4X (water tight, dust and corrosion resistant).

The transducers also have Factory Mutual approvals for:

1. Explosion proof service (Class 1, Divisions 1 and 2, Groups B, C and D)
2. Dust ignition proof service (Class II, Divisions 1 and 2, Groups E, F and G)
3. Class III, Divisions 1 and 2. Equivalent to the above approvals have been obtained from the Canadian Standards Association.

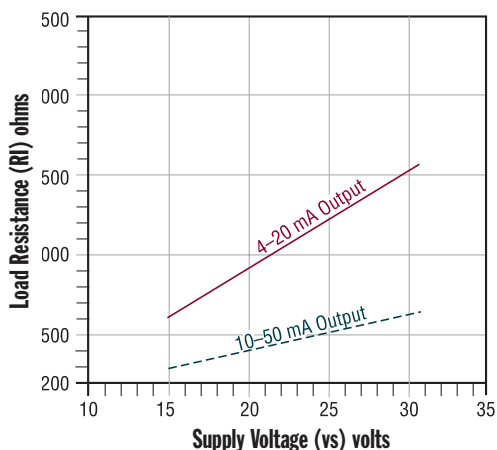
FUNCTIONAL DIAGRAM



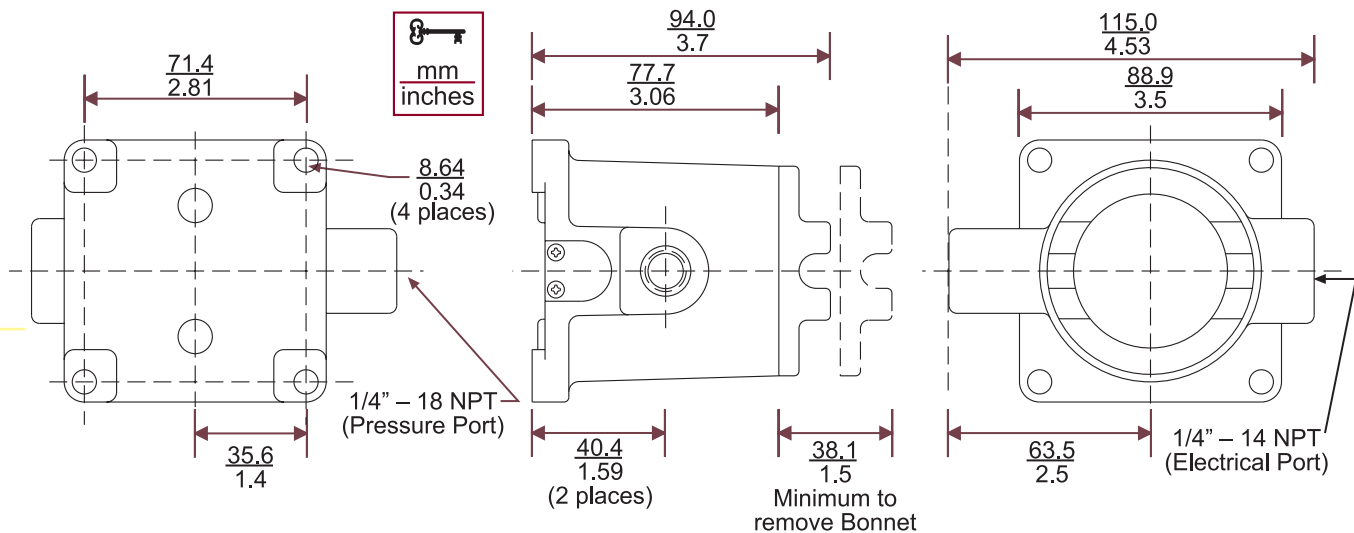
MAX LOAD RESISTANCE VS. SUPPLY VOLTAGE

4-20 mA Output: $R_L = 50 \text{ ohms / volt}$

10-50 mA Output: $R_L = 20 \text{ ohms / volt}$



DIMENSIONAL DRAWING



SPECIFICATIONS

Input signal	0-15 psig (0-1.0 BAR) 3-15 psig (0.2-1.0 BAR) 3-27 psig (0.2-1.9 BAR) 6-30 psig (0.4-2.1 BAR) 0.2-1.0 BAR (3-15 psig) 0-100 psig (0-6.9 BAR)
Output Signal	4-20 mA DC, 2 wire 10-50 mA DC, 2 wire
Output Protections	Reverse polarity protected
Accuracy	± 0.1% span typical; ± 0.25% span max. includes nonlinearity, hysteresis and non-repeatability
Overpressure	45 psig (3.1 BAR) without calibration shift 60 psig (4.1 BAR) without failure
Allowable Loads	See Graph
Response Time	Less than 10 msec for step change to 99%R
Temperature Range-Operating	-40° F to +180° F (-40° C to +82° C)
Temperature Effect	Zero - Less than ± 0.01% R/F Span - Less than ± 0.01% R/F
RFI Effect	Less than 1% R at 10V/meter per SAMA PMC 33.1, 2-abc
Power Supply	12-30 VDC
Power Supply Effect	Less than 0.005% per volt change at the input terminals within specified power supply limits
Calibration Adjustments	Multi-turn Zero and Span potentiometers with ± 25% min. adjustment
In-Process Output Monitoring	Via test jacks within enclosure without disturbing field wiring
Connections	1/4 - 18 NPT female pressure input, 1/2 - 14 NPT female electrical output
Mounting	Suitable bracket or optional 1/4-20 U-bolt pipe mounting kit
Finish	Epoxy coated aluminum body and cover
Weight	1.7 lbs. (0.8 kg)

IMPORTANT NOTICE

Our recommendations, if any, for the use of this product are based on tests believed to be reliable. The greatest care is exercised in the selection of our raw materials and in our manufacturing, no guarantee or warranty, express or implied is made as to such use or effects incidental to such use, handling or possession or the results to be obtained, whether in accordance with the directions or claimed so to be. The manufacturer expressly disclaims responsibility therefor. Furthermore, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing laws and/or patents covering any material use.

ORDERING MATRIX

9	6	4			1	0	
INPUT							
0	0-15 psig (0-1.0 BAR)						
1	3-15 psig (0.2-1.0 BAR)						
2	3-27 psig (0.2-1.9 BAR)						
3	6-30 psig (0.4-2.1 BAR)						
4	0.2-1.0 BAR (3-15 psig)						
5	0-100 psig (0-6.9 BAR)						
OUTPUT							
0	4-20 mA						
1	10-50 mA						
AGENCY APPROVAL							
1	X / P FM/CSA						
OPTIONS							
00	None						
01	Pipe Clamp Mounting Kit						



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TYPE 5000 P/I TRANSDUCERS