

PX3 SERIES

32313757
Issue H

Heavy Duty Pressure Transducers

PX3 Series, 1 bar to 50 bar | 15 psi to 700 psi

DESCRIPTION

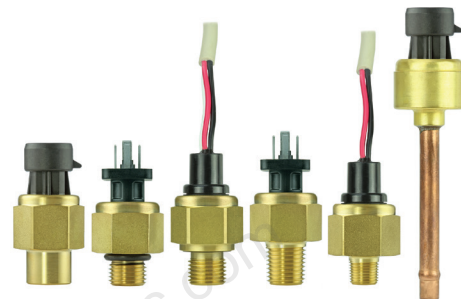
Honeywell's PX3 Series Heavy Duty Pressure Transducers use piezoresistive sensing technology with ASIC (Application Specific Integrated Circuit) signal conditioning in a brass housing and Metri-Pack 150, DIN, or cable harness electrical connections. The PX3 Series is calibrated and temperature compensated from -40°C to 125°C [-40°F to 257°F].

DIFFERENTIATION

- Optional diagnostics mode: Beneficial in applications where the sensor functionality and the need to know internal or external failure modes is critical.
- Great customer value: Multiple configuration possibilities provide flexibility of use in the application with no upfront NRE or tooling charges.
- Durable: Provides the tough environmental specifications needed, including insulation resistance and dielectric strength, external freeze-thaw resistance (see Figure 2), and EMC performance.
- 4 mA to 20 mA output is temperature compensated up to 125°C

FEATURES

- Pressure range: 1 bar to 50 bar | 15 psi to 700 psi (absolute and sealed gage)
- Ratiometric output: 0.5 Vdc to 4.5 Vdc or 0.33 Vdc to 2.97 Vdc
- 4 mA to 20 mA output supports transmission of output signals over longer distances
- Calibrated and temperature compensated
- Total Error Band: ± 1.0 %FSS from -20°C to 85°C [-4°F to 185°F]
- External freeze/thaw resistance: 6 cycles from -30°C to 50°C [-22°F to 122°F]
- Insulation resistance: >100 MOhm, 1500 Vdc (in dry, non-ionized air)
- Dielectric strength: AC1500V, 1 min. or AC1800V, 1 s (in dry, non-ionized air)
- Current consumption: 3.5 mA max.
- EMC (radiated immunity): 200 V/m (ratiometric voltage output), 140 V/m (current output) per ISO 11452-2
- Ingress protection IP67 (Metri-Pack connector), IP69K (cable harness), IP65 (DIN connector)
- RoHS, REACH, CE and UKCA compliant
- Six industry-standard pressure port types, including a tube port which provides for hermetically-sealed process connection



POTENTIAL APPLICATIONS

- Industrial: Refrigerant pressure monitoring in HVAC/R systems; dry air system pressure, process controls and automation
- Transportation: Dry air system monitoring; hydraulic, brake, and engine oil fluid pressure monitoring; air brake pressure monitoring

The PX3 Series is not recommended for use with media involving water, saturated air such as steam and vapor, and ammonia.



PORTFOLIO

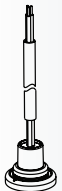
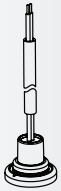
Honeywell offers a variety of heavy duty pressure transducers for potential use in aerospace, medical, transportation, agriculture, refrigeration, and industrial applications. To view the entire product portfolio, [click here](#).

Honeywell

HEAVY DUTY PRESSURE TRANSDUCERS PX3 SERIES

Figure 5. Nomenclature and Order Guide

For example, **PX3AN1BS150PAAAX** defines a PX3 Series Heavy Duty Pressure Transducer, Metri-Pack 150, standard (UL V-0) electrical connector type, 1/4-18 NPT pressure port type, brass housing body, silicone: -40°C to 125°C [-40°F to 257°F] seal material and temperature range, 150 psi pressure range, absolute pressure reference, ratiometric: 0.5 Vdc to 4.5 Vdc output transfer function, no special

PX3 A N1 B S 150P A A A X										Special
Series										X
PX3 Heavy Duty Pressure Transducer ¹										
Electrical Connector Type										
A Metri-Pack 150, Standard (UL V-0) ²										
C DIN (Male, EN 175301-803C)										
PVC Cable³ -40°C to 105°C [-40°F to 221°F] two or three 22 AWG wires XLPE Cable³ -40°C to 125°C [-40°F to 257°F] two or three 22 AWG wires										
0.5 m [1.3 ft]	K	L								
1.0 m [3.2 ft]	E	M								
2.0 m [6.6 ft]	F	N								
3.0 m [9.8 ft]	G	P								
5.0 m [16.4 ft]	H	Q								
  Three-wire cable is required for ratiometric Output Transfer Functions AA, DA, AC and DC; two-wire cable is required for Output Transfer Function CH. Three meter and five meter cables are only available with Output Transfer Function CH.										
Pressure Port Type⁴										
F1	7/16-20 UNF 1/4 inch 45° Flare Female Schrader (SAE J512)									
G1	G1/4 A-G (ISO 1179-3)									
G2	G1/4 A-L (ISO 1179-2)									
M1	M12 x 1.5 (ISO 6149-3)									
N1	1/4-18 NPT (ANSI/ASME B1.20.1)									
N2	1/8-27 NPT (ANSI/ASME B1.20.1)									
T1	Tube ⁵									
Output Transfer Function										
AA Ratiometric: 5.0 V, 10% to 90% Vs										
DA Ratiometric: 5.0 V, 10% to 90% Vs (diagnostics on) ⁶										
AC Ratiometric: 3.3 V, 10% to 90% Vs										
DC Ratiometric: 3.3 V, 10% to 90% Vs (diagnostics on) ⁶										
CH Current: 4 mA to 20 mA										
Pressure Reference										
A Absolute										
S Sealed gage ⁷										
Pressure Range										
bar										psi
001B 1 bar	016B 16 bar	015P 15 psi	250P 250 psi							
1.6B 1.6 bar	020B 20 bar	030P 30 psi	300P 300 psi							
002B 2 bar	025B 25 bar	050P 50 psi	500P 500 psi							
2.5B 2.5 bar	030B 30 bar	100P 100 psi	600P 600 psi							
004B 4 bar	035B 35 bar	150P 150 psi	667P 667 psi							
006B 6 bar	040B 40 bar	174P 174 psi	700P 700 psi							
008B 8 bar	046B 46 bar	200P 200 psi								
010B 10 bar	050B 50 bar									
012B 12 bar										
Internal O-ring Material and Temperature Range^{1,8}										
H HNBR (Hydrogenated Nitrile Butadiene Rubber): -30°C to 125°C [-22°F to 257°F]										
S Silicone: -40°C to 125°C [-40°F to 257°F]										
Housing Body Material										
B Brass (C36000)										
Mating Connector²										
										

¹ Not all catalog listing combinations are shown. Custom configurations, such as varied cable lengths, end mating connectors, different O-ring materials, and different pressure ranges are available. Please contact Honeywell.

² Metri-Pack 150 mating connectors with shielded cable and three 22 AWG wires are available from Honeywell. Order part no. 3685301 for 1 m [3.2 ft] cable length and part no. 3685302 for 3 m [9.8 ft] cable length.

³ PVC Flame Retardant (FR) type cable is FT1 rated per IEC60332-1; XLPE non-flame retardant cable is FT2 rated per IEC60332-1.

⁴ See Table for pressure port materials.

⁵ Tube port is not available with DIN connector option.

⁶ See page 3 for Diagnostics Mode information.

⁷ Sealed gage option only available in pressure ranges at or above 8 bar | 100 psi.

⁸ See Table 6 for O-ring seal material media compatibility.