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].

VALUE TO CUSTOMERS
• Total Error Band (TEB) ±1.0 %FSS from -20°C to 85°C: Provides indication of the sensor’s true measurement performance over a specified temperature range; small error promotes system uptime and efficiency. (See Figure 1.)

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, and CE 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’s PX3 Series joins the PX2 Series, MLH Series, and SPT Series heavy duty pressure transducers.
## Heavy Duty Pressure Transducers

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

### Table 1. Electrical Specifications

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage:</td>
<td></td>
</tr>
<tr>
<td>ratiometric voltage output:</td>
<td></td>
</tr>
<tr>
<td>5 Vdc</td>
<td>5 Vdc ±0.25 Vdc</td>
</tr>
<tr>
<td>3.3 Vdc</td>
<td>3 Vdc ±0.25 Vdc</td>
</tr>
<tr>
<td>current output:</td>
<td></td>
</tr>
<tr>
<td>-40°C to 100°C</td>
<td>8 Vdc to 30 Vdc</td>
</tr>
<tr>
<td>&gt;100°C to 125°C</td>
<td>8 Vdc to 25 Vdc</td>
</tr>
</tbody>
</table>

| Over voltage and reverse voltage: | |
| ratiometric voltage output | ±16 Vdc |
| current output | ±35 Vdc |

| Current consumption: | |
| 5 Vdc supply | 3.0 mA max. |
| 3.3 Vdc supply | 1.6 mA to 2.1 mA |

| Short circuit protection | yes |

| Nominal output transfer function: | |
| 5 Vdc supply | 0.5 Vdc to 4.5 Vdc (ratiometric to supply) |
| 3.3 Vdc supply | 0.33 Vdc to 2.97 Vdc (ratiometric to supply) |
| 8 Vdc to 30 Vdc supply | 4 mA to 20 mA |

### Table 2. Performance Specifications (At 25°C [77°F] and under unless otherwise noted.)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature range(^1)</td>
<td>-40°C to 125°C [-40°F to 257°F]</td>
</tr>
<tr>
<td>Storage temperature range(^1)</td>
<td>-40°C to 125°C [-40°F to 257°F]</td>
</tr>
<tr>
<td>Compensated temperature range</td>
<td>-40°C to 125°C [-40°F to 257°F]</td>
</tr>
<tr>
<td>Total Error Band(^2):</td>
<td></td>
</tr>
<tr>
<td>-20°C to 85°C [-4°F to 185°F]</td>
<td>±1.0 %FSS</td>
</tr>
<tr>
<td>&lt;-20°C, &gt;85°C [-4°F, &gt;185°F]</td>
<td>±2.0 %FSS</td>
</tr>
<tr>
<td>Accuracy BFSL(^3)</td>
<td>±0.25 %FSS</td>
</tr>
<tr>
<td>Response time</td>
<td>&lt;2 ms (10% to 90% step change in pressure)</td>
</tr>
<tr>
<td>Turn on time(^4)</td>
<td>&lt;7 ms</td>
</tr>
<tr>
<td>EMC rating(^5):</td>
<td></td>
</tr>
<tr>
<td>surge immunity (all leads)</td>
<td>±1000 V line to ground per IEC 61000-4-5</td>
</tr>
<tr>
<td>electrostatic discharge</td>
<td>±4 kV contact, ±8 kV air per IEC 61000-4-2</td>
</tr>
<tr>
<td>radiated immunity</td>
<td>10 V/m (80 MHz to 1000 MHz) per IEC 61000-4-3</td>
</tr>
<tr>
<td>fast transient burst</td>
<td>±1 kV per IEC 61000-4-4</td>
</tr>
<tr>
<td>immunity to conducted disturbances</td>
<td>3 V per IEC 61000-4-6</td>
</tr>
<tr>
<td>radiated emissions</td>
<td>40 dBµV (30 MHz to 230 MHz), 47 dBµV (230 MHz to 1000 MHz) per CISPR 11</td>
</tr>
<tr>
<td>radiated immunity:</td>
<td></td>
</tr>
<tr>
<td>ratiometric (voltage) output</td>
<td>200 V/m per ISO 11452-2</td>
</tr>
<tr>
<td>4 mA to 20 mA (current) output</td>
<td>140 V/m per ISO 11452-2</td>
</tr>
<tr>
<td>Insulation resistance(^6):</td>
<td></td>
</tr>
<tr>
<td>ratiometric voltage output</td>
<td>&gt;100 MOhm at 1500 Vdc</td>
</tr>
<tr>
<td>current output</td>
<td>&gt;100 MOhm at 1000 Vdc</td>
</tr>
<tr>
<td>Dielectric strength</td>
<td>&lt;1 mA at 1500 Vac (1 min) or 1800 Vac (1 s)</td>
</tr>
<tr>
<td>Load resistance(^6):</td>
<td></td>
</tr>
<tr>
<td>ratiometric voltage output</td>
<td>&gt;5 kOhm</td>
</tr>
<tr>
<td>current output</td>
<td>(V(_in) - 8) x 50 Ohm</td>
</tr>
<tr>
<td>Life</td>
<td>&gt;10 million full scale pressure cycles over the calibrated pressure range</td>
</tr>
</tbody>
</table>

---

1. Dependent on seal material. See Figure 5.
2. Total Error Band: The maximum deviation from the ideal transfer function over the entire compensated temperature and pressure range. Includes all errors due to offset, full scale span, pressure non-linearity, pressure hysteresis, pressure non-repeatability, thermal effect on offset, thermal effect on span, and thermal hysteresis.
3. Accuracy: The maximum deviation in output from a Best Fit Straight Line (BFSL) fitted to the output measured over the pressure range at 25°C [77°F]. Includes all errors due to pressure non-linearity, pressure hysteresis, and pressure non-repeatability.
4. Turn on time: Duration from power applied until first valid output for voltage output. Typical value for 4 mA to 20 mA output.
5. Tested using 1.5 m [59.1 in] long cable.
6. Tested in dry, non-ionized air.
Table 3. Pressure Reference Definitions

<table>
<thead>
<tr>
<th>Pressure Reference</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute</td>
<td>Output is calibrated to be proportional to the difference between applied pressure and a fixed reference to perfect vacuum (absolute zero pressure).</td>
</tr>
<tr>
<td>Sealed gage¹</td>
<td>Sensor construction is identical to the absolute version with a built-in reference at zero pressure in order to minimize measurement error over temperature. The output is calibrated to be proportional to the difference between applied pressure and a reference of 1 standard atmosphere (1.013 barA</td>
</tr>
</tbody>
</table>

¹ Sealed gage option only available in pressure ranges at or above 8 bar | 100 psi.

Figure 3. Ratiometric Output Option AA for 100 psi, Absolute vs Sealed Gage

Diagnostics Mode (For Ratiometric Voltage Output Only)
The PX3 Series diagnostics mode allows the device to indicate when internal or external faults occur. If an internal fault occurs, the output will rail to the preset lower or upper limit values shown in Figure 4 and Table 5.

External faults will result in the sensor’s output exceeding those preset limits (lower or upper). (For example, if the external sensor ground (signal) were lost, the sensor output would exceed the upper rail of 97.5%.)

Table 4. Pressure Ratings

<table>
<thead>
<tr>
<th>bar</th>
<th>Operating Pressure</th>
<th>Over-pressure</th>
<th>Burst Pressure</th>
<th>psi</th>
<th>Operating Pressure</th>
<th>Over-pressure</th>
<th>Burst Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>8</td>
<td></td>
<td>15</td>
<td>70</td>
<td>115</td>
<td></td>
</tr>
<tr>
<td>1.6</td>
<td>5</td>
<td>8</td>
<td></td>
<td>30</td>
<td>150</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>17</td>
<td></td>
<td>50</td>
<td>250</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>10</td>
<td>17</td>
<td></td>
<td>100</td>
<td>450</td>
<td>750</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>17</td>
<td>27</td>
<td></td>
<td>150</td>
<td>450</td>
<td>750</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>31</td>
<td>51</td>
<td></td>
<td>174</td>
<td>450</td>
<td>750</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>31</td>
<td>51</td>
<td></td>
<td>200</td>
<td>450</td>
<td>1150</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>31</td>
<td>51</td>
<td></td>
<td>250</td>
<td>450</td>
<td>1150</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>31</td>
<td>51</td>
<td></td>
<td>300</td>
<td>1000</td>
<td>1500</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>32</td>
<td>80</td>
<td></td>
<td>500</td>
<td>1000</td>
<td>1500</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>69</td>
<td>103</td>
<td></td>
<td>600</td>
<td>1000</td>
<td>1500</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>69</td>
<td>103</td>
<td></td>
<td>667</td>
<td>1000</td>
<td>1500</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>69</td>
<td>103</td>
<td></td>
<td>700</td>
<td>1000</td>
<td>1500</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>69</td>
<td>103</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>69</td>
<td>103</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>69</td>
<td>103</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>69</td>
<td>103</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Table 5. Output Transfer Function Codes

<table>
<thead>
<tr>
<th>Fault Condition</th>
<th>Analog Diagnostic Rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEPROM Corrupt</td>
<td>below lower rail</td>
</tr>
<tr>
<td>Sensor Bridge Open (any element)</td>
<td>above upper rail</td>
</tr>
<tr>
<td>Sensor Bridge Short (any element)</td>
<td>above upper rail</td>
</tr>
<tr>
<td>Low supply voltage</td>
<td>below lower rail</td>
</tr>
<tr>
<td>Loss of ground connection</td>
<td>above upper rail</td>
</tr>
</tbody>
</table>
Table 6. Environmental and Mechanical Specifications

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock:</td>
<td></td>
</tr>
<tr>
<td>threaded ports</td>
<td>100 G per MIL-STD-202G, Method 213B, Cond. F (at 25°C [77°F])</td>
</tr>
<tr>
<td>tube port</td>
<td>100 G per MIL-STD-202F, Method 213B, and Condition C</td>
</tr>
<tr>
<td>Vibration:</td>
<td></td>
</tr>
<tr>
<td>threaded ports</td>
<td>20 G sweep, 10 Hz to 2000 Hz (at 25°C [77°F])</td>
</tr>
<tr>
<td>tube port</td>
<td>10 Hz to 55 Hz, 2 mm displacement, tested as per IEC 60068-2-6, Test FC. (at 25°C [77°F])</td>
</tr>
<tr>
<td>Ingress protection:</td>
<td>IP67</td>
</tr>
<tr>
<td>Metri-Pack 150 electrical connector</td>
<td></td>
</tr>
<tr>
<td>DIN electrical connector</td>
<td>IP65</td>
</tr>
<tr>
<td>Cable harness electrical connector</td>
<td>IP65, IP67, IP69K</td>
</tr>
<tr>
<td>Ambient humidity</td>
<td>0 %RH to 95 %RH, non-condensing</td>
</tr>
<tr>
<td>External freeze/thaw resistance</td>
<td>&gt;6 cycles from -30°C to 50°C [-22°F to 122°F]</td>
</tr>
<tr>
<td>Wetted materials:</td>
<td>brass C36000; lead (Pb) content: 3.7% max.</td>
</tr>
<tr>
<td>threaded ports</td>
<td>nitrile</td>
</tr>
<tr>
<td>external seals for ports</td>
<td>copper UNS C12200; lead (Pb) free</td>
</tr>
<tr>
<td>tube port</td>
<td>silver and copper alloy</td>
</tr>
<tr>
<td>braze filler</td>
<td>seal material based on application (see seal material media compatibility options below)</td>
</tr>
<tr>
<td>internal O-ring media seal</td>
<td>alumina, glass, silicon</td>
</tr>
<tr>
<td>sensing element and substrate</td>
<td>epoxy</td>
</tr>
<tr>
<td>adhesives</td>
<td></td>
</tr>
<tr>
<td>Internal O-ring material media compatibility¹</td>
<td>refrigerants, engine oil, petroleum-based hydraulic fluid</td>
</tr>
<tr>
<td>HNBR (option H)</td>
<td>dry air</td>
</tr>
<tr>
<td>silicone (option S)</td>
<td></td>
</tr>
<tr>
<td>Electrical connector material</td>
<td>PBT 30% GF</td>
</tr>
</tbody>
</table>

¹ Honeywell can assist with selecting suitable O-ring seal material for the media based on the seal manufacturer’s recommendation. The customer should test the compatibility with the media to ensure that it is correct for the application.

---

**CAUTION**

**PRODUCT DAMAGE TO TUBE PRESSURE PORT TYPE DURING BRAZING**

Ensure that the temperature of the brass port and plastic connector is maintained below 125°C during flame brazing. Exposure to temperatures higher than 125°C can cause permanent product damage and can compromise ingress protection leading to short circuits.

*Failure to comply with these instructions may result in product damage.*

---

**CAUTION**

**PRODUCT DAMAGE DUE TO MECHANICAL ISSUES**

- Ensure torque specifications are determined for the specific application. Values provided are for reference only. (Mating materials and thread sealants can result in significantly different torque values from one application to the next.)
- When using mating parts made of stainless steel, use a thread sealant with anti-seize properties to prevent thread galling. Ensure the sealant is rated for the application.
- Use appropriate tools (such as an open ended wrench or deep well socket) to install transducers.
- Always hand-start transducers into the hole to prevent cross threading and damage.
- Ensure that torque is not applied to the electrical connector.
- Ensure that the proper mating electrical connector with a seal is used to connect the transducer. Improper or damaged seals can compromise ingress protection, leading to short circuits.

*Failure to comply with these instructions may result in product damage.*

---

**CAUTION**

**PRODUCT DAMAGE DUE TO PARTICULATES AND SATURATED AIR**

Ensure that filters and dehumidifiers are used upstream of the transducers to keep media flow free of large particulates and condensed moisture. PX3 Series transducers are dead-end devices. Particulate accumulation may clog the port or damage the diaphragm. Condensing moisture may affect sensor output and lower insulation resistance.

*Failure to comply with these instructions may result in product damage.*

---

**CAUTION**

**PRODUCT DAMAGE DUE TO CONDUCTIVE MEDIA**

Ensure sensor is not used with conductive or ionic media. These media can affect sensor output and lower insulation resistance.

*Failure to comply with these instructions may result in product damage.*

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Figure 5. Nomenclature and Order Guide

For example, PX3AN1BS150PAAAAX 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

Series

PX3 Heavy Duty Pressure Transducer

Electrical Connector Type

A Metri-Pack 150, Standard (UL V-0)

DIN (Male, EN 175301-803C)

Special

Output Transfer Function

AA Ratiometric: 5.0 V, 10% to 90% Vs

DA Ratiometric: 5.0 V, 10% to 90% Vs (diagnostics on)

AC Ratiometric: 3.3 V, 10% to 90% Vs

DC Ratiometric: 3.3 V, 10% to 90% Vs (diagnostics on)

CH Current: 4 mA to 20 mA

Pressure Range

<table>
<thead>
<tr>
<th>Pressure Port Type</th>
<th>F1 7/16-20 UNF 1/4 inch 45° Flare Female Schrader (SAE J512)</th>
<th>G1 G1/4 A-G (ISO 1179-3)</th>
<th>G2 G1/4 A-L (ISO 1179-2)</th>
<th>M1 M12 x 1.5 (ISO 6149-3)</th>
<th>N1 1/4-18 NPT (ANSI/ASME B1.20.1)</th>
<th>N2 1/8-27 NPT (ANSI/ASME B1.20.1)</th>
<th>T1 Tube</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5 m [1.3 ft]</td>
<td>K L</td>
<td>E M</td>
<td>F N</td>
<td>G P</td>
<td>H Q</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.0 m [3.2 ft]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.0 m [6.6 ft]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.0 m [9.8 ft]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.0 m [16.4 ft]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Three-meter and five-meter cables are only available with Output Transfer Function CH.

Internal O-ring Material and Temperature Range

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 Connector

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.
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Figure 6. Metri-Pack Mounting Dimensions (For reference only. mm/[in.])

P1: 7/16-20 UNF 1/4 inch 45° Flare Female Schrader (SAE J512)
Seal: 45° cone
Mating geometry: SAE J512
Installation torque: 17 N m [12.5 ft-lb] max.
Weight: 41 g to 46 g [1.4 oz to 1.6 oz]

G1: G1/4 A-G (ISO 1179-3)
Seal: O-ring (included)
Mating geometry: ISO 1179-1
Weight: 35.1 g to 40.1 g [1.2 oz to 1.4 oz]

G2: G1/4 A-L (ISO 1179-2)
Seal: ISO 9974-2/DIN 3869 profile ring (included)
Mating geometry: ISO 1179-1
Weight: 35.1 g to 40.1 g [1.2 oz to 1.4 oz]

M1: M12 x 1.5 (ISO 6149-3)
Seal: O-ring (included)
Mating geometry: ISO 6149-1
Weight: 33.9 g to 38.9 g [1.2 oz to 1.4 oz]

N1: 1/4-18 NPT
Seal: Pipe thread
Mating geometry: ANSI B1.20.1
Installation torque: Two to three turns from finger tight
Weight: 35.1 g to 40.1 g [1.2 oz to 1.4 oz]

N2: 1/8-27 NPT
Seal: Pipe thread
Mating geometry: ANSI B1.20.1
Installation torque: Two to three turns from finger tight
Weight: 31.2 g to 36.2 g [1.1 oz to 1.3 oz]

T1: Tube
Seal: Brazing
Weight: 32 g [1.1 oz]

Ensure this area is protected during the brazing process so that temperatures do not exceed 125°C (257°F).

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Figure 7. DIN Mounting Dimensions (For reference only. mm/[in].)

<table>
<thead>
<tr>
<th>Pinout</th>
<th>Ratiometric Voltage Output</th>
<th>General product marking</th>
</tr>
</thead>
</table>
| F1, G1, G2, M1, N1, N2 | Pin 1 = Ground  
Pin 2 = V+  
Pin 3 = Vout  
Pin 4 (PE) = Not connected | Yellow lettering |
| G1: G1/4 A-G (ISO 1179-3) | Seal: O-ring (included)  
Mating geometry: ISO 1179-1  
Weight: 36.1 g to 41.1 g [1.3 oz to 1.4 oz] |
| M1: M12 x 1.5 (ISO 6149-3) | Seal: O-ring (included)  
Mating geometry: ISO 6149-1  
Weight: 34.9 g to 39.9 g [1.2 oz to 1.4 oz] |
| N1: 1/4-18 NPT | Seal: Pipe thread  
Mating geometry: ANSI B1.20.1  
Installation torque: Two to three turns from finger tight  
Weight: 36.1 g to 41.1 g [1.3 oz to 1.4 oz] |
| N2: 1/8-27 NPT | Seal: Pipe thread  
Mating geometry: ANSI B1.20.1  
Installation torque: Two to three turns from finger tight  
Weight: 32.2 g to 37.2 g [1.1 oz to 1.3 oz] |

Pinout

- **F1: 7/16-20 UNF 1/4 inch 45° Flare Female Schrader (SAE J512)**
  - Seal: 45° cone
  - Mating geometry: SAE J512
  - Installation torque: 17 N m [12.5 ft-lb] max.
  - Weight: 42 g to 47 g [1.5 oz to 1.7 oz]

- **G1: G1/4 A-G (ISO 1179-3)**
  - Seal: O-ring (included)
  - Mating geometry: ISO 1179-1
  - Weight: 36.1 g to 41.1 g [1.3 oz to 1.4 oz]

- **G2: G1/4 A-L (ISO 1179-2)**
  - Seal: ISO 9974-2/DIN 3869 profile ring (included)
  - Mating geometry: ISO 1179-1
  - Weight: 36.1 g to 41.1 g [1.3 oz to 1.4 oz]

- **M1: M12 x 1.5 (ISO 6149-3)**
  - Seal: O-ring (included)
  - Mating geometry: ISO 6149-1
  - Weight: 34.9 g to 39.9 g [1.2 oz to 1.4 oz]

- **N1: 1/4-18 NPT**
  - Seal: Pipe thread
  - Mating geometry: ANSI B1.20.1
  - Installation torque: Two to three turns from finger tight
  - Weight: 36.1 g to 41.1 g [1.3 oz to 1.4 oz]

- **N2: 1/8-27 NPT**
  - Seal: Pipe thread
  - Mating geometry: ANSI B1.20.1
  - Installation torque: Two to three turns from finger tight
  - Weight: 32.2 g to 37.2 g [1.1 oz to 1.3 oz]
Heavy Duty Pressure Transducers
PX3 Series, 1 bar to 50 bar | 15 psi to 700 psi

Figure 8. Cable Harness Mounting Dimensions (For reference only. mm/[in.])

### Wire colors

<table>
<thead>
<tr>
<th>Wire colors</th>
<th>F1, G1, G2, M1, N1, N2</th>
<th>T1</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-wire cable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-wire cable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Voltage Output

- Black = Ground
- Red = V+
- White = Vout

### Current Output

- Black = Return
- Red = Supply

#### F1: 7/16-20 UNF 1/4 inch 45° Flare Female Schrader (SAE J512)
- **Seat:** 45° cone
- **Mating geometry:** SAE J512
- **Installation torque:** 17 N·m [12.5 ft-lb] max.
- **Weight:** 90 g to 88 g [3.2 oz to 3.1 oz]

#### G1: G1/4 A-G (ISO 1179-3)
- **Seat:** O-ring (included)
- **Mating geometry:** ISO 1179-1
- **Installation torque:** 15 N·m [11.1 ft-lb] max.
- **Weight:** 70 g to 68 g [2.5 to 2.4 oz]

#### G2: G1/4 A-L (ISO 1179-2)
- **Seat:** ISO 9974-2/DIN 3869 profile ring (included)
- **Mating geometry:** ISO 1179-1
- **Installation torque:** 15 N·m [11.1 ft-lb] max.
- **Weight:** 70 g to 68 g [2.5 to 2.4 oz]

#### M1: M12 x 1.5 (ISO 6149-3)
- **Seat:** O-ring (included)
- **Mating geometry:** ISO 6149-1
- **Installation torque:** 12 N·m [8.85 ft-lb] max.
- **Weight:** 69 g to 67 g [2.4 oz]

### General product marking

- White label with black lettering

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Heavy Duty Pressure Transducers
PX3 Series, 1 bar to 50 bar | 15 psi to 700 psi

Figure 8. Cable Harness Mounting Dimensions (For reference only. mm/[in].)

**N1: 1/4-18 NPT**
**Seal:** Pipe thread
**Mating geometry:** ANSI B1.20.1
**Installation torque:** Two to three turns from finger tight
**Weight:** 70 g to 88 g [2.5 oz to 3 oz]

**N2: 1/8-27 NPT**
**Seal:** Pipe thread
**Mating geometry:** ANSI B1.20.1
**Installation torque:** Two to three turns from finger tight
**Weight:** 68 g to 84 g [2.4 oz]

**T1: Tube**
**Seal:** Brazing
**Weight:** 67 g [2.4 oz]

Ensure this area is protected during the brazing process so that temperatures do not exceed 125°C [257°F].

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ADDITIONAL INFORMATION
The following associated literature is available on the Honeywell web site at sensing.honeywell.com:

- Product line guide
- Product range guide
- Product installation instructions
- Application notes:
  - Heavy Duty Pressure Transducers, PX2 Series and PX3 Series
  - PX2 Series and PX3 Series Heavy Duty Pressure Transducers for Potential Use in Industrial Refrigeration
  - PX2 Series and PX3 Series Heavy Duty Pressure Transducers for Potential Use in Industrial HVAC/R Applications
- Technical notes:
  - Total Error Band Specification for Honeywell Heavy Duty Pressure Transducers, PX2 Series and PX3 Series
  - Media Compatibility for Honeywell Heavy Duty Pressure Transducers, PX2 Series and PX3 Series
- CAD models

WARNING
PERSONAL INJURY
DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.
Failure to comply with these instructions could result in death or serious injury.

WARNING
MISUSE OF DOCUMENTATION

- The information presented in this datasheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.
Failure to comply with these instructions could result in death or serious injury.

Warranty/Remedy
Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Honeywell’s standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details.
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