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

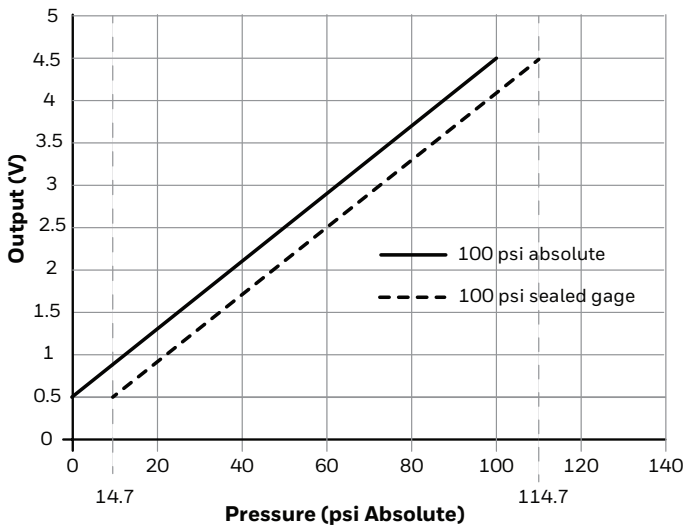

Table 4. Pressure Ratings

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

Diagnostics Mode

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%.)

Figure 4. Analog Output with Diagnostics

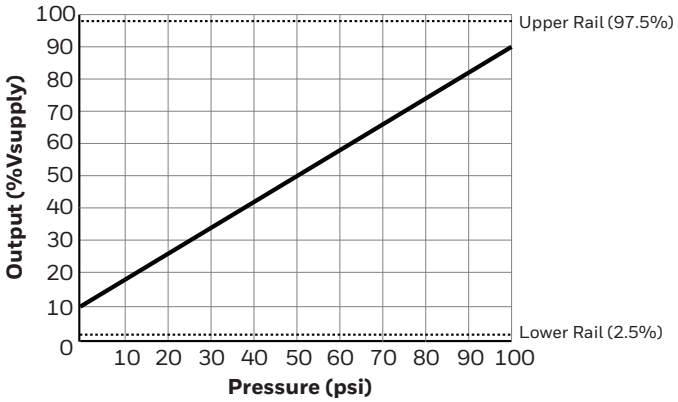

Table 5. Output Transfer Function Codes

Fault Condition	Analog Diagnostic Rail
EEPROM Corrupt	below lower rail
Sensor Bridge Open (any element)	above upper rail
Sensor Bridge Short (any element)	above upper rail
Low supply voltage	below lower rail
Loss of ground connection	above upper rail

Table 6. Environmental and Mechanical Specifications

Characteristic	Parameter
Shock: threaded ports tube port	 100 G per MIL-STD-202G, Method 213B, Cond. F (at 25°C [77°F]) 100 G per MIL-STD-202F, Method 213B, and Condition C
Vibration: threaded ports tube port	 20 G sweep, 10 Hz to 2000 Hz (at 25°C [77°F]) 10 Hz to 55 Hz, 2 mm displacement, tested as per IEC 60068-2-6; Test FC. (at 25°C [77°F])
Ingress protection: Metri-Pack 150 electrical connector cable harness electrical connector	 IP67 IP69K
Ambient humidity	0 %RH to 95 %RH, non-condensing
External freeze/thaw resistance	>6 cycles from -30°C to 50°C [-22°F to 122°F]
Wetted materials: threaded ports tube port braze filler internal O-ring media seal sensing element and substrate adhesives	 brass C36000; lead (Pb) content: 3.7% max. copper UNS C12200; lead (Pb) free silver and copper alloy seal material as required by the application (see seal material media compatibility options below) alumina, glass, silicon epoxy
Internal O-ring material media compatibility[1]: HNBR (option H) silicone (option S)	 refrigerants, engine oil, petroleum-based hydraulic fluid dry air
Other materials: Metri-Pack 150 electrical connector external O-ring seal on G1, M1 ports	 PBT 30% GF nitrile (-30°C to 125°C [-22°F to 257°F])

[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
- Ensure that a filter is used upstream of the transducer to keep media flow free of larger particulates and increased humidity. All PX3 Series transducers are dead-ended devices; particulate accumulation and condensing moisture may affect sensor output.
- It is recommend that the transducer be positioned with the port facing downwards; any particulates in the system are less likely to enter and settle within the pressure transducer if it is in this position.
- Ensure that the media does not create a residue when dried. Build-up inside the transducer may affect transducer output; rinsing of a dead-ended transducer is potentially difficult and has limited effectiveness in removing residue.

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