

SELECTION GUIDE - HONEYWELL HEAVY DUTY PRESSURE TRANSDUCERS

The following is a brief overview of Honeywell's PX3, PX2 and MLH Series sensors. To help with the initial selection of the pressure sensor, it is useful to identify three factors: pressure range and reference, application media, and electrical output. Whenever PX2 and PX3 meet the requirements of the application, it is recommended to use PX3.



Blue = PX3 Series Differentiator

Characteristic	Honeywell PX3 Series	Honeywell PX2 Series	Honeywell MLH Series	Notes
Total Error Band (%FSS)	±1% from -20 °C to 85 °C [-4 °F to 185 °F]; ±2% below -20 °C and above 85 °C	±2% from -40 °C to 125 °C [-40 °F to 257 °F]	±2% from -40 °C to 125 °C [-40 °F to 257 °F] (dependent on pressure range)	Small error permits systems to run more efficiently, which helps to minimize energy costs. PX3 TEB is better than many competitive offerings.
Pressure Range	1 bar to 46 bar 15 psi to 667 psi	1 bar to 70 bar 15 psi to 1000 psi 100 kPa to 7 MPa	6 to 550 bar 50 psi to 8000 psi	Wide pressure range and reference options accommodate diverse applications. MLH Series is capable of handling higher pressures (than either PX3 or PX2 Series) that can be found in hydraulic systems and refrigeration systems using CO ₂ .
Pressure Reference Options	absolute sealed gage	absolute sealed gage vented gage	sealed gage vented gage	
Number of Threaded Port Options	6 7/16-20 Female Schrader; NPT, G (BSPP), metric options	10 7/16-20 Female Schrader; NPT, UNF SAE, G (BSPP), metric options	over 20 ports 7/16-20 Female Schrader; NPT, UNF SAE, G (BSPP), R (BSPT), metric options	Several common port options and electrical connectors provide flexibility to accommodate application and regional diversity. Brass port option is available on PX3 for cost sensitive applications.
Port Material	brass C3600 (lead content: 3.7% max.)	stainless steel 304	stainless 304L	
Number of Electrical Connector Options	1 Metri-Pack 150 (more options coming soon)	5 Metri-Pack 150, Deutsch DTM, M12 DIN EN 175301, Integral Cable	8 Metri-Pack 150, Deutsch DTM, M12 DIN 43650C, integral cable; see datasheet for other options	
Number of Electrical Output Types	2 0.5-4.5 Vdc ratiometric; 4-20 mA (coming soon)	9 0.5-4.5 Vdc ratiometric; 4-20 mA; 1-5 Vdc; 1-6 Vdc; 0.33-2.97 Vdc; other options available	6 0.5-4.5 Vdc ratiometric; 4-20 mA; 1-5 Vdc; 1-6 Vdc; 0.25-10.25 Vdc; 0.5-4.5 Vdc regulated	Several electrical outputs are available to facilitate integration into the system. 3.3 volt low power option is available on PX2 (see datasheet for additional options).
Media Compatibility	c HFC refrigerants (e.g. R410A), low GWP refrigerants (e.g. R32, R1234ZE), engine oil, brake fluid, hydraulic fluid	common HFC refrigerants (e.g. R410A), low GWP refrigerants (e.g. R32, R1234ZE), engine oil, brake fluid, hydraulic fluid, saline (1%), potable water	accommodates more corrosive media than PX2 and PX3 (example: ammonia, mild disinfectants, natural gas); MLH uses stainless port and stainless diaphragm	Compatibility supports wide variety of applications such as HVAC/R, air compressor, MAP, pneumatic systems.
Materials in contact with media	brass C36000 (lead content: 3.7% max.), silicon, glass, alumina, epoxy, internal media seal (according to PX3 part number)	stainless 304, silicon, glass, alumina, epoxy	stainless 304L, stainless Haynes 214	MLH uses a metal diaphragm welded to a metal threaded port.
EMC (Radiated Immunity)	200 V/m per ISO 11452-2	100 V/m per ISO 11452-2	10 V/m per CE	PX3 Series' high radiated immunity provides signal output near wireless signals and antennas.
Insulation Resistance	greater than 100 m-ohm at 1500 Vdc	not specified	not specified	PX3 Series' high insulation resistance helps protect operator and sensor from hazardous current.
Dielectric Strength	greater than 1500 VAC for 1 minute or 1800 VAC for 1 second	not specified	not specified	PX3 Series' high dielectric strength helps protect operator and sensor from hazardous current.
External Freeze/Thaw Resistance	-30 °C to 50 °C [-22 °F to 122 °F], 6 cycles	not specified	not specified	PX3 Series' resistance against external frost prevents operation downtime and minimizes maintenance costs.
Price	\$	\$\$	\$\$\$	PX3 is the lowest priced of the three Series.