MODEL 5050LL-PTK
Pressure Transducer

General Description

HydroLynx pressure transducers are specifically designed to meet the rigorous environments encountered in level measurement applications. These transducers provide repeatable, precision depth measurements under the most adverse conditions.

All transducers incorporate isolated diaphragm sensors which are specifically designed for use with hostile fluids and gases. These sensors utilize a silicon pressure cell that has been fitted into a stainless steel housing with an integral, compliant stainless steel barrier diaphragm. This sensor assembly is housed in a rugged 316 SS case which provides for a variety of pressure inputs as well as electrical output connections.

Model 5050LL-PTK pressure transducers feature high performance and internal signal conditioning. They are available in both 4 to 20 mA and 0 to 5 Vdc output versions.

Features

- High static accuracy and repeatability
- Welded 316 SS construction
- Small rugged package
- Broad selection of pressure ranges
- 100% computer-tested, calibrated and serialized
- Unique cable seal system
- Fully temperature compensated

Specifications

Performance

Pressure range: ..... 0 - 5 through 0 - 300 PSIG
Static accuracy*: ..... ± 0.10% FSO BFSL (specify)
± 0.25% FSO BFSL (specify)
± 0.50% FSO BFSL (specify)
± 1.0% FSO BFSL (specify)
Thermal Error**: ..... 0.05% FSO/°C worst case
Proof Pressure: ..... 1.5 x rated pressure
Burst Pressure: ..... 2.0 x rated pressure
Resolution: ..... Infinite

*Static accuracy includes the combined errors due to nonlinearity, hysteresis and nonrepeatability on a Best Fit Straight Line basis, at 25°C per ISA S51.1.

**Thermal error is the maximum allowable deviation from the Best Fit Straight Line due to a change in temperature, per ISA S51.1

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Specifications (continued)

Environmental

Comp. temp. range***: ..... 0 to 50 °C
Operating temp. range: ..... -10 to 60 °C

*** Tighter tolerances on thermal error and/or a wider compensated temperature range are available on request. Consult the sales office.

Electrical

Excitation: ..... 9 to 30 Vdc
Input current: ..... 20 mA maximum
Output: ..... 0-5 Vdc (3 wire) or 4-20 mA (2 wire)
Zero offset, max:
0-5 Vdc: ..... 60 mV
4-20 mA: ..... 0.12 mA
Output impedance: ..... <10 ohms
Insulation resistance: ..... 100 W at 50 Vdc
Circuit protection: ..... Polarity, surge & shorted output

Physical

Dimensions: ..... 1 in. dia. x 4.02 in. long
Weight: ..... 7 oz (not incl. cable)
Cable: ..... Polyurethane jacketed shielded cable with polyethylene vent tube and Kevlar tension members - 200 lbs. pull strength. Tefzel jacket optional.

Wetted materials: ..... 316 SS, Fluorocarbon
Mounting provisions: ..... Suspended by cable.

For turbulent conditions, specify optional mounting bracket.

Ordering Information

Model	Calibration Range Sensor	Min / Max
5050LL-PTK Pressure Transducer (specify range)	0-1 PSI	1.7 ft. / 3.4 ft.
	0-5 PSI	8.5 ft. / 17 ft.
	0-15 PSI	17 ft. / 34 ft.
	0-30 PSI	34 ft. / 68 ft.

5050LL-PTK-420 ..... Pressure Transducer, 4 to 20 mA
5050LL-PTK-C ..... Additional Cable, per foot
5050LL-PTK-M ..... Mounting Bracket for Standpipe Installation
5050LL-PTK-F ..... ¼ in. NPT Pressure Fitting