

Description and Application

The KMC TPE-1483 series of liquid pressure transducers incorporates a wet/wet differential pressure transmitter featuring low hysteresis, excellent repeatability, and long-term stability.

Up to four field-selectable input ranges are available in most models. The field-selectable feature provides a single model that can be configured to cover all the input pressure ranges for any given application.

Three output ranges are field selectable: 4 to 20 mA, 0 to 5 VDC, and 0 to 10 VDC. The output signal is factory-calibrated and temperature-compensated for the highest start-up accuracy.

TPE-1483s can be powered from a 18 to 28 VAC/VDC (non-isolated half-wave rectified) power source. They incorporate a rugged NEMA 4X and IP65 enclosure.

TPE-1483s may be used with any liquid or gas that is compatible with 17-4 PH stainless steel. They are suited for any application requiring a reliable pressure monitor providing a dependable conditioned and compensated signal output.

▲ CAUTION

Do not use:

- In an explosive or hazardous environment
- With combustible or flammable gasses
- As a safety or emergency stop device
- In any other application where failure of the product could result in personal injury

NOTE: This document is for the units available starting in late 2008. See Rev. B of this data sheet for the earlier enclosure and specifications.



Features

- ◆ Push-button and remote zeroing terminal
- ◆ Uni-directional or bi-directional pressure-range selection switch
- ◆ High/low port swap switch to solve incorrect plumbing for differential
- ◆ Normal or slow-surge damping switch to prevent false alarms and reduce noise
- ◆ Output polarity reverse switch—in reverse mode the analog output is maximum when the pressure differential is zero and decreases as pressure increases

Models

The models are available with the following jumper-selectable pressure ranges:

TPE-1483-1	0 to 5/10/25/50 psig/d
TPE-1483-2	0 to 10/20/50/100 psig/d
TPE-1483-3	0 to 50/100/250/500 psig/d

Specifications

Media compatibility	17–4 PH stainless steel
Supply Voltage	18 to 28 VAC/VDC (non-isolated half-wave rectified)
Supply Current	35 mA, maximum @ 24 VDC
Output Signal	4 to 20mA, 0 to 5 VDC, or 0 to 10 VDC, field selectable
Pressure Ranges	Field selectable: TPE-1483-1 0 to 5/10/25/50 psig/d TPE-1483-2 0 to 10/20/50/100 psig/d TPE-1483-3 0 to 50/100/250/500 psig/d
Line Pressure	Highest of the selectable ranges on each model
Proof Pressure	Max. 2X highest range per model
Burst Pressure	Max. 5X highest range per model
Accuracy	±1% F.S. (Full Scale) combined linearity, hysteresis, and repeatability; lowest range on each model has accuracy ±2% F.S
Pressure Cycles	> 100 million
Surge Damping	Normal 4-second averaging or slow 8-second averaging, switch selectable
Temperature Compensation Range	32 to 130° F (0 to 55° C)
Sensor Operating Range	–40 to 185° F (–40 to 85° C)
Long Term Stability	±0.25% typical (1 year)
Zero Adjust	Push-button and remote-input auto-zero
Operating Environment	32 to 122° F (0 to 50° C), 10 to 90% RH, non-condensing
Fittings	1/8" NPT female
Enclosure	ABS with hinged lid and gasket, 5.7" W x 4" H x 2.5" D (145 x 102 x 64 mm), NEMA 4X and IP65
Shock	100 G, 11 mSec, 1/2 sine
Vibration	20 G peak 20 to 2000 Hz
Weight	0.83 lb. (0.37 kg)
Manufacturing	ISO 9001 registered quality system
Regulatory	CE and RoHS Compliant

Dimensions



All dimensions are in inches (mm)

▲ CAUTION

Ensure that the maximum individual port pressure does not exceed the maximum pressure range of the unit.

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