

TPE-1483 Series

Liquid Differential Pressure Transducers

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.

A 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 jumperselectable 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-isolat-

ed 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) com-

bined 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

(143 X 102 X 64 IIIII), INEIVI

4X and IP65

Shock 100 G, 11 mSec, 1/2 sine **Vibration** 20 G peak 20 to 2000 Hz

Weight 0.83 lbs. (0.37 kg)

Manufacturing ISO 9001 registered quality

system

Regulatory CE and RoHS Compliant

Dimensions



All dimensions are in inches (mm)

A CAUTION

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

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