

### Description and Application

TPE-1476 series Duct Pressure Transducers can be used to measure positive, negative, or differential pressure. Four models each offer four easily selectable pressure ranges and three selectable outputs. The units come with a mounted pressure probe.

The piezoresistive sensor is ideal for monitoring the pressure of air or other clean inert gases and is limited only to those media that will not attack polyetherimide, silicon, fluorosilicone, silicone, EPDM, and neoprene seals.

The units feature jumper-selectable pressure ranges and output signal options for the most flexible applications. They are suited for any application requiring a pressure monitor that provides a reliable, conditioned, and compensated signal output. Typical HVAC applications include monitoring of filter differential pressure or duct pressure. The output signal is factory-calibrated and temperature-compensated for highest startup accuracy and trouble-free operation.

The TPE-1476 can be powered from either a 12 to 28 VAC or 16.5 to 35 VDC power source. The TPE-1476 incorporates a high-impact, black ABS, plenum-rated enclosure.

The unit may be mounted in any position but typically is installed on a vertical surface with the pressure ports on the right and the cable entrance on the left. (Avoid locations where severe vibrations or excessive moisture are present.) The enclosure has a standard 1/2-inch conduit opening and may be installed with either conduit and a conduit coupler or a cable-gland-type fitting.

**DO NOT USE** for these applications:

- ◆ Oxygen service
- ◆ Explosive/hazardous environments
- ◆ Flammable or combustible materials
- ◆ Emergency stop devices or in any other application where failure of the product could result in personal injury



### Models

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

- ◆ TPE-1476-21:  $\pm 0.5"$ ,  $\pm 1"$ , 0 to 1", 0 to 2" wc
- ◆ TPE-1476-22:  $\pm 1.5"$ ,  $\pm 3"$ , 0 to 3", 0 to 6" wc
- ◆ TPE-1476-23:  $\pm 2.5"$ ,  $\pm 5"$ , 0 to 5", 0 to 10" wc
- ◆ TPE-1476-24:  $\pm 250$ ,  $\pm 500$ , 0 to 500, 0 to 1000 Pa

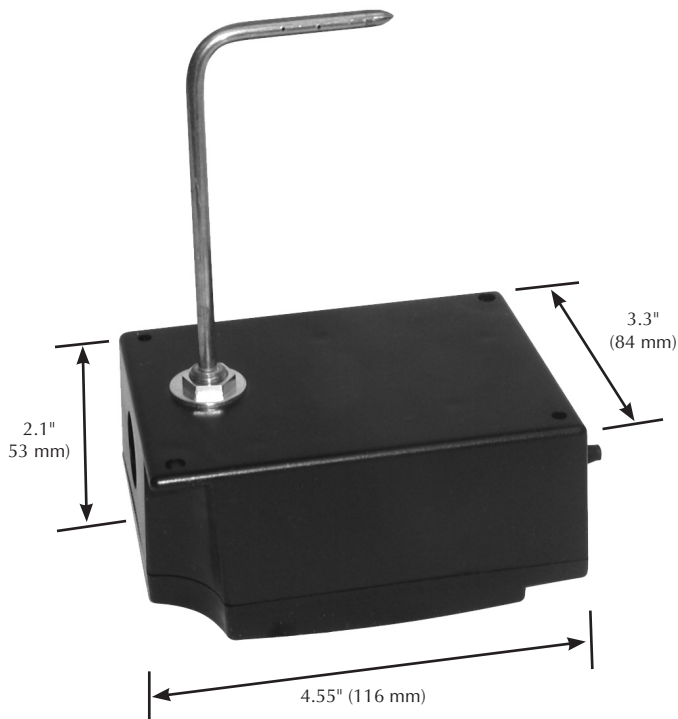
### Key Features

- ◆ Three jumper-selectable voltage/current outputs of 4–20 mA (2-wire), 0–5 VDC (3-wire), or 0–10 VDC (3-wire)
- ◆ Can measure positive, negative, or differential pressures
- ◆ Four jumper-selectable pressure ranges (inches water column and pascals)
- ◆ Can be powered by a range of AC or DC voltages
- ◆ Push-button auto-zero

### Accessories

- ◆ HFO-0015: Low-pressure pick-up tube, 4" long
- ◆ HFO-0016: Low-pressure pick-up tube, 6" long

## Dimensions



## Specifications

<b>Pressure Ranges</b>	See data under Models
<b>Calibration Accuracy</b>	±1% FSO (Full Scale Output)
<b>Measurement Type</b>	Differential (two port)
<b>Response Time</b>	250 ms
<b>Stability</b>	< ±1% FSO per year
<b>Compensated Range</b>	50° to 122° F (10° to 50° C)
<b>Thermal Effects</b>	< ±3% over compensated range
<b>Over Pressure</b>	20 psi or 2 x range (whichever is greater)
<b>Zero Adjustment</b>	Push-button auto-zero
<b>Operating Conditions</b>	32° to 140° F (0° to 60° C), 10 to 90% RH non-condensing
<b>Media Compatibility</b>	Limited only to those that will not attack polyetherimide, silicon, fluorosilicone, silicone, EPDM, and neoprene seals; typically, dry air or inert gas but liquid is allowed

<b>Power Supply (at transmitter)</b>	12 to 28 VAC, 16.5 to 35 VDC (non-isolated half-wave rectified)
<b>Supply Current</b>	< 4 mA
<b>Input Voltage Effect</b>	Negligible over specified operating range
<b>Protection Circuitry</b>	Reverse voltage protected and output limited
<b>Output Signal Options</b>	4–20 mA (2-wire) 0–5 VDC (3-wire) 0–10 VDC (3-wire)
<b>Current Output Drive Capability</b>	400 ohm maximum @ 24 VDC
<b>Voltage Output Drive Capability</b>	2K ohm minimum for 0–5 VDC signal 10K ohm minimum for 0–10 VDC signal
<b>Wiring Connections</b>	Screw terminal block (14 to 22 AWG)
<b>Pressure Connections</b>	Probe and barbed port for 0.170" ID flexible tubing
<b>Enclosure</b>	High-impact black ABS, plenum-rated; 2.1" (53 mm) x 4.55" (116 mm) x 3.3" (84 mm), not including pressure probe and low pressure port
<b>Conduit Connection</b>	Access hole for 1/2" NPT conduit or cable gland
<b>Weight</b>	5.6 oz. (159 grams)

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