



## TPE-1483 Series

### Differential Pressure Transducer



The KMC TPE-1483 series of Differential Pressure Transducers incorporates a 100% solid state piezoresistive silicon sensors featuring negligible hysteresis, excellent linearity, repeatability and sensitivity. The pressure cavities are machined from a solid rod and do not have any welds, seams or bonds that insures leak proof operation and enhances overpressure and burst pressure protection. Signal conditioning and temperature compensation are performed by industrial quality, state-of-the-art integrated circuits to provide an accurate, linear, and high level output that does not require additional signal conditioning.

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

Two output ranges are field selectable, 0 to 5 VDC and 0 to 10 VDC. The output is fully protected from shorts to ground and connection to power supply.

The TPE-1483 can be powered from either a 12 to 35 VAC or 12 to 40 VDC power source. The TPE -1483 incorporates a rugged NEMA 4 fully gasketed, dust proof and splash proof enclosure. External mounting tabs and a 1/2" conduit connection make for an easy installation. The removable terminal block, easy access to the zero and span trimmers, and conveniently located dipswitch also provides for easy installation and setup.

The VM-705 stainless steel three-valve isolation manifold is designed to be field installed without any piping interconnections with stainless steel fittings and adapters.

#### Specifications

|                                       |                                                                                                             |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>Supply Voltage</b>                 | 12-35 VAC or 12-40 VDC                                                                                      |
| <b>Supply Current</b>                 | 10 mA, maximum                                                                                              |
| <b>Output Signal</b>                  | 0-5 or 1-10 VDC, field selectable                                                                           |
| <b>Load Impedance</b>                 | 1 K ohm, minimum                                                                                            |
| <b>Output Ranges</b>                  | Field selectable:                                                                                           |
| TPE-1483-1                            | 0-20, 0-10, 0-5 psid                                                                                        |
| TPE-1483-2                            | 0-100, 0-50, 0-25 psid                                                                                      |
| TPE-1483-3                            | 0-300, 0-150, 0-75 psid                                                                                     |
| TPE-1483-4                            | 0-140, 0-70, 0-35 kPa                                                                                       |
| TPE-1483-5                            | 0-700, 0-350, 0-175 kPa                                                                                     |
| TPE-1483-6                            | 0-2000, 0-1000, 0-500 kPa                                                                                   |
| <b>Maximum Static Pressure</b>        | 200% of DP range                                                                                            |
| <b>Over Pressure</b>                  | 300% of rated range                                                                                         |
| <b>Burst Pressure</b>                 | 500% of rated range                                                                                         |
| <b>Media Compatibility</b>            | Liquid/gases compatible with 316L stainless steel                                                           |
| <b>Accuracy</b>                       | ±1% Full scale                                                                                              |
| <b>Operating Range/</b>               |                                                                                                             |
| <b>Temperature Compensation</b>       | 0°-180° F (-18° -82° C)<br>10-90% RH, non-condensing                                                        |
| <b>Temperature Compensation Error</b> | ±0.025% per °F ±0.03% per °C                                                                                |
| <b>Port Connection</b>                | 1/8" NPT                                                                                                    |
| <b>Wiring</b>                         | 12 AWG, maximum, removable terminal block                                                                   |
| <b>Enclosure</b>                      | 18 Ga. CR. Steel, NEMA 4 (IP-65)                                                                            |
| <b>Finish</b>                         | Gray baked enamel                                                                                           |
| <b>Weight</b>                         |                                                                                                             |
| <b>Transducer</b>                     | 1.7 lbs. (.77 kg)                                                                                           |
| <b>Manifold 5.2 lbs.</b>              | (2.36 kg)                                                                                                   |
| <b>Conformance</b>                    |                                                                                                             |
| <b>EMC Standards</b>                  | EN50082-1 (1992)<br>EN55014 (1993)<br>EN60730-1 (1992)<br>NN55022: (IEC/CISPR22 (1993)<br>AS/NZ 3548 (1995) |
| <b>Ambient Limits</b>                 | Operating: 5°-120°F (-21°-49°C)<br>Shipping: -40°-140°F (-40°-60°C)                                         |