

Penny & Giles Proportional Pressure Sensor PPS140

- Stainless-steel. flush diaphragm
- Measurement ranges up to 1000bar
- Multiple pressure-connection options
- Multiple electrical-output options
- Accuracy 0.5%
- Environmentally robust

A thin-film, semiconductor measuring element bonded to a flush, stainless-steel diaphragm ensures excellent sensor performance in terms of long-term stability, measured-media compatibility and pressure peaks; so making the PPS140 suitable for use in a wide range of industrial applications. Overall robustness, even in the most challenging of hydraulic applications, is assured through the unit's welded stainless-steel housing.



STANDARD CONFIGURATIONS

MEASUREMENT RANGE

| | | | | | | | | | |
|-----------------------|-----|-----|-----|---|-----|----|----|----|-----|
| GAUGE (BAR) | 0.6 | 1 | 1.6 | 2 | 2.5 | 4 | 6 | 10 | 20 |
| ABSOLUTE (BAR) | 1 | 2 | 2.5 | 6 | 10 | 20 | 40 | 60 | 100 |
| | 160 | 200 | | | | | | | |

PRESSURE MODES

Gauge / Absolute

PRESSURE CONNECTION

G 1/2 A Shape A G 1 A Shape E

ELECTRICAL OUTPUT

4-20mA two wire 4-20mA three wire 0-10V 1-5V
0.5-4.5V ratiometric

ELECTRICAL CONNECTION

MVC/A MVC/C Male M12X1 - S763 Flying lead

SPECIFICATIONS

ACCURACY

| | |
|------------------------|--|
| AT 20°C | 0.5% of measurement range. Option for 0.25%. Includes non-linearity, hysteresis, zero offset and final offset in accordance with IEC 61298-2 |
| BEST-FIT STRAIGHT LINE | 0.125% |
| NON-LINEARITY | 0.15% of measurement range |
| REPEATABILITY | 0.1% of measurement range |
| STABILITY PER YEAR | 0.1% of measurement range |

ELECTRICAL

| | |
|---------------|---------------------------|
| RESPONSE TIME | 1ms over 10-90% |
| OVER VOLTAGE | 350Vdc. Option for 710Vdc |

MECHANICAL

| | |
|----------------------|---|
| SENSING DIAPHRAGM | Silicon |
| HOUSING | Stainless steel |
| SHOCK RESISTANCE | 1000g according to IEC 68-2-32 |
| VIBRATION RESISTANCE | 20g according to IEC 68-2-2 and IEC 68-2-36 |
| MASS | 80-120mg dependent on configuration |
| CE-MARKING | To 2004/108/EC |
| IP RATING | Per electrical connector rating |

TEMPERATURE

| | |
|---|--|
| MEASURED MEDIA | -30°C to 100°C |
| OPERATING | -30°C to 100°C |
| STORAGE | -40°C to 100°C |
| COMPENSATED RANGE | -20°C to 85°C |
| TEMPERATURE COEFFICIENTS WITHIN THE COMPENSATED RANGE | |
| MEAN OFFSET | 0.015%/°C of measurement range |
| MEAN RANGE | 0.015%/°C of measurement range |
| TOTAL ERROR | -30°C 2% of measurement range, 100°C 2% of the measurement range |

For detailed specifications of pressure ratings, pressure connections, electrical outputs and electrical connections, refer to the Pressure Sensors General Specification document.

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