PM620 TERPS High Accuracy Pressure Modules

PM620 now incorporates our unique range of TERPS resonant silicon pressure sensor technology. Providing up to four times greater stability and higher accuracy than current pressure measurement technologies.

Features

- Total uncertainty from 0.0125% FS
- Temperature compensated accuracy from -10°C to 50°C (-14°F to 122°F)
- Simple screw fit - hand tight no tools required
- Ranges from 1.2 bar to 100 bar (17.5 psi to 1500 psi)
- Compatibility with pressure calibrators such as DPI612 and DPI620G/DPI620G-IS series
- Safe and Hazardous area versions available
- Fully interchangeable with no need for set-up or calibration

The PM620 TERPS is the latest development in resonant silicon pressure sensor technology incorporating a number of key innovations to allow pressure re-ranging of compatible equipment. A simple screw fit makes both the pressure and electrical connections without the need for tools, sealing tape, cables or plugs and digital characterisation allows interchangeability without set-up or calibration.

PM620 TERPS Specification

Maximum working pressure	110% FS	Approval	CE marked
Sealing	IP 65 (protected against dust and jets of water)	Size and weight	L. 56 mm, Dia. 44 mm, 106 g maximum
Operating temperature	-10 to 50°C (14 to 122°F)	RoHS	Compliant
Storage temperature	-20 to 70°C (-4 to 158°F)	Orientation Stability	<0.2 mbar/g
Humidity	0 to 90% RH non condensing	Drift at pressure (100 bar range)	<50 ppm @ -10°C to 50°C when held at pressure for 1 hour <100 ppm @ -10°C to 50°C when held at pressure for 24 hour For all other ranges drift at pressure reduces linearly for 100 bar
Shock and vibration	BS EN 61010-1 MIL-PRF-28800F for Class II equipment, 1 m Drop Tested	Media Compatibility	Media to be compatible with Stainless Steel
EMC	BS EN 61326-1	Resolution	Selectable - 4 to 7 digits
Electrical safety	BS EN 61010-1	Uncertainty Confidence Level	95% (k=2)
Pressure safety	Pressure equipment directive class SEP		

Uncertainty

Pressure Range (Absolute)	NLHR @ 25°C (% FS)	NLHR @ -10°C to 50°C (% FS)	Total uncertainty @ -10°C to 50°C (% FS)
1.2 bar	0.006%	0.013%	0.020%
2 bar	0.004%	0.008%	0.0125%
7 bar	0.004%	0.008%	0.0125%
20 bar	0.004%	0.008%	0.0125%
35 bar	0.004%	0.008%	0.0125%
70 bar	0.004%	0.008%	0.0125%
100 bar	0.004%	0.008%	0.0125%

Hazardous Area Approvals

Approval	Baseefa 16ATEX0012X IECEx BAS 10.0004X Ex II 1 G Ex ib IIC T4 Gb (-10 ≤ Ta ≤ +50°C)
EN60079-0	Electrical apparatus for Potentially Explosive Atmospheres - General Requirements.
EN60079-11	Electrical apparatus for Potentially Explosive Atmospheres - Intrinsic Safety 'i'.

Notes:

1. *The reading can be referenced to ambient air pressure via a software feature of the DPI620 Genii, allowing the same module to be switched between absolute and sealed gauge measurement.*
2. *NLH&R Non-linearity, hysteresis and repeatability to reference standard.*
3. *Total uncertainty includes reference standard uncertainty, NLHR over specified range and 1 year drift.*

Ordering Information

Please order the following part numbers as separate line items, stating "Model Type" and "Pressure Range".
For example: PM620T 2 bar absolute or PM620TS 2 bar absolute.

Commercial "Model Type"	Pressure Range	
PM620T	1.2 bar absolute	17 psi absolute
	2 bar absolute	30 psi absolute
	7 bar absolute	100 psi absolute
	20 bar absolute	300 psi absolute
	35 bar absolute	500 psi absolute
	70 bar absolute	1,000 psi absolute
	100 bar absolute	1,500 psi absolute

Intrinsically safe "Model Type"	Pressure Range	
PM620TS	1.2 bar absolute	17 psi absolute
	2 bar absolute	30 psi absolute
	7 bar absolute	100 psi absolute
	20 bar absolute	300 psi absolute
	35 bar absolute	500 psi absolute
	70 bar absolute	1,000 psi absolute
	100 bar absolute	1,500 psi absolute

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