

MPT 6C Series

Cryogenic

Pressure Transmitter



Description:

The MPT 6C Series use a high stability, fully welded stainless steel thin film pressure sensor module. Designed to measure liquid pressures in a cryogenic state either in vehicle deployment or storage applications. Typical uses include: rocket propulsion and fuel cells.

Available as a raw mV or fully conditioned electrical signal makes the transmitter suitable for all control and data logging requirements. The sensing head is separated from the conditioning electronics by a shielded cable which allows the operation at extreme temperatures whilst maintaining the electronics within a cooler area.

Pressure ranges are available from 2 to 2000bar, with operating temperatures from -200°C to +260°C depending upon selected configuration.

For applications that require some degree of customization we offer support and service of a highly skilled design and manufacturing team at ICS-NH.

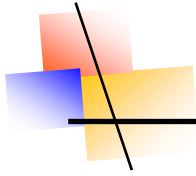
Product Features:

- Cryogenic Service
- Miniature Size
- 2 to 2000 bar Measurement Range
- Fully Welded Construction
- -200 to 260°C Operating Temperature
- Vibration Tested To:
DO160 Cat H and Cat R
and up to 50g/2kHz

Applications:

- Propulsion Systems
- Vehicle Installation
- Fuel Storage & Transportation
- Test Stand Monitoring
- Industrial Process



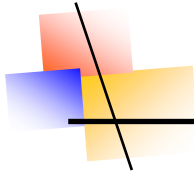


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General Technical Specifications:		
Feature	Unit	Data
Measurement Range	bar	0 - 2 bar to 0 - 2000 bar (other ranges and units available upon request)
Pressure Reference	N/A	Absolute
Pressure Overload (non-destructive)	bar	2 x nominal pressure
Burst Pressure	bar	5 x nominal pressure
Construction Material (wetted)	N/A	Stainless Steel 17-4ph, 316L or A286
Housing Material	N/A	Stainless Steel 17-4ph or 316L
Supply Voltage	Vdc	5 - 32 Vdc
Supply Current	mA	<10 for amplified signal <3 for bridge option
Output	V	0.5 - 4.5 ratiometric @ 5Vdc supply 0.5 - 4.5 @ 7 - 32Vdc supply 0 - 10 @ 12 - 32Vdc supply (other outputs available upon request)
Operating Temperature Range	°C	-200 to 260 (sensing head) -40 to 125 (remote electronics)
Compensated Temperature Range	°C	-200 to 25 (others available upon request)
Accuracy (total error band)	% FS	< ±0.5 (combination of: non-Linearity & thermal errors within the compensated temperature range)
Accuracy:	Hysteresis Repeatability Setting Tolerance	% FS < ±0.2 < ±0.05 < ±0.5
Long Term Stability	% FS	<±0.5 per 1000hours @ 125°C
Process Connection	N/A	Metric ISO6149-2 (M6x1, M8x1, M10x1) Mil Std-33656 (-2, -3, -4) others available upon request
Electrical Connection	N/A	PTFE insulated cable, screened 26AWG per core
Response	Hz	1000 for amplified signal
EMC/ESD Performance	N/A	Excellent EMC/ESD robustness and AEC-Q100 qualification. Reverse polarity and short circuit protection)
Vibration	N/A	DO160 Cat H and Cat R and up to 50g/2kHz
Shock	g	100, 11mS half sine pulse
Insulation Resistance	Ω	>10 ⁹ @100Vdc





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Ordering Codes:

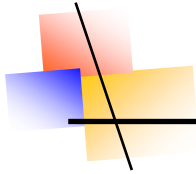
Example:	MPT6C-	600B	A-	1-	1-	3-	000
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Pressure Range		↑					
2 bar	2B						
6 bar	6B						
10 bar	10B						
25 bar	25B						
60 bar	60B						
100 bar	100B						
250 bar	250B						
400 bar	400B						
600 bar	600B						
1000 bar	1000B						
2000 bar	2000B						
Custom	X						
Pressure Reference		↑					
Absolute		A					
Output / Supply Type		↑					
0.5 to 4.5V ratiometric @ 5V				1			
0.5 to 4.5V @ 7-32V				2			
0 to 10V @ 12-32V				3			
mV/V Bridge @ 10V max				4			
4 - 20mA @ 12-32V				5			
Custom				X			
Operating Temperature Range		↑					
-40 to 125°C				1			
-40 to 150°C				2			
-200 to 260°C				3			
Custom				X			
Process Connection		↑					
M6x1						1	
M8x1						2	
M10x1						3	
5/16-24UNF dash-2 (MS 33656-2)						4	
3/8-24UNF dash-3 (MS 33656-3)						5	
7/16-24UNF dash-4 (MS 33656-4)						6	
Custom						X	
Custom Options		↑					
None							000
Wire lock holes							100

Notes:

1. For custom details, please add 'X' into the part number. We will issue a specification drawing along with a customization code.
2. Not all options can be combined.
3. Consult us to discuss specific requirements of your application.

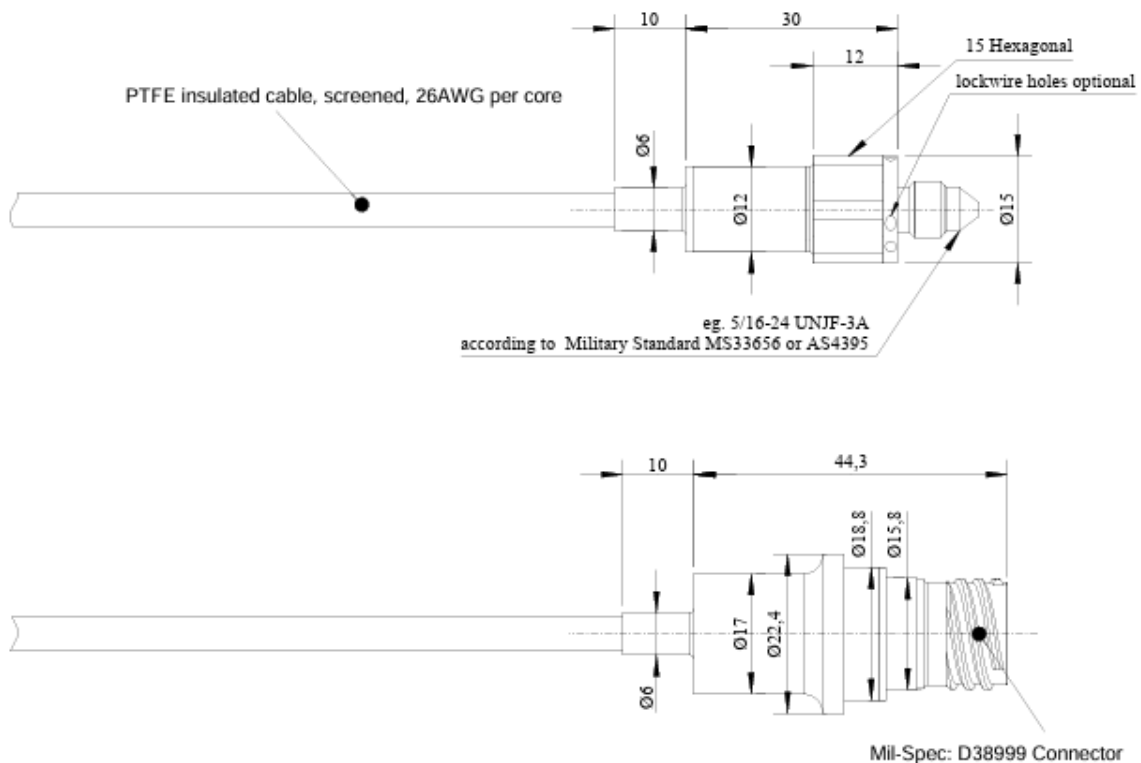




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Mechanical Dimensions:



Notes:

1. Final mechanical dimensions will depend upon the selected configuration and requirements of the application.
2. Consult us to discuss specific requirements of your application.

