

MPT 6 Series

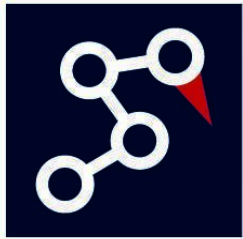
Miniature Pressure Transmitter

- Extremely small dimensions
 - Stainless steel
 - Several output options
 - Wide pressure range
 - Stainless Steel Housing
 - Vibration Tested according DO160
- Cat H and Cat R and up to 50g/2kHz



General Technical Specification		
Feature	Unit	Data
Measurement Range ⁽¹⁾	psi	0 ... 30 psi to 0 ... 15,000 psi
Wetted Material	N/A	Stainless Steel 17-4PH for the sensing element Port according to client's specification
Housing Material	N/A	Stainless Steel (e.g.: 304, 316, ...)

(1) Pressure range is defined by client, absolute pressure on request



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Product Overview:

Our advanced system features a precision-engineered, stainless steel (17-4PH) thin film pressure sensor seamlessly integrated into the pressure port through welding, eliminating the need for internal seals. At the heart of our system is a state-of-the-art ASIC (Application-Specific Integrated Circuit), designed to offer unparalleled customization and performance in signal conditioning. This ASIC is not only versatile with a wide range of system settings (a select few of which are outlined in the table above) but also comes packed with essential features for reliability and durability:

- Reverse polarity and short-circuit protection ensures system integrity under adverse conditions.
- Exceptional EMC/ESD robustness and AEC-Q100 qualification highlight its automotive-grade quality.
- High voltage protection up to 33V safeguards against unexpected power surges.
- Available digital outputs (I2C, SPI) cater to specific connectivity requirements.
- Operates efficiently across a broad temperature spectrum, from -40 to +260°F.

We are open to providing additional information and data upon request to meet your specific needs.

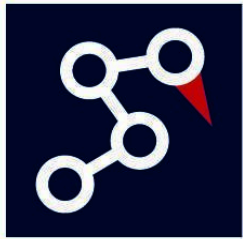
Output Options:

Our system offers a versatile range of output options to suit various application requirements:

- Ratiometric output ranging from 0.5 to 4.5V @5VDC Supply or 10 to 90% Vss.
- Stable fixed outputs of 0.5 to 4.5V @ Vss 7 to 32Vss and 0 to 10V @ 7 to 32Vss.
- Current output 4 to 20mA, with digital I2C and SPI outputs available upon request.

In addition to the ASIC capabilities, we also offer straightforward analogue signal conditioning with a fixed analogue output for those seeking simplicity. Further details are available upon request.

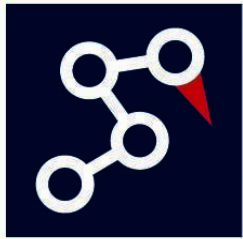
For applications demanding resilience against extreme temperatures, our system includes a bridge output option. Units equipped with this feature come with either a mathematical model for compensation or additional remote electronics, ensuring full compensation and optimal performance under challenging conditions.



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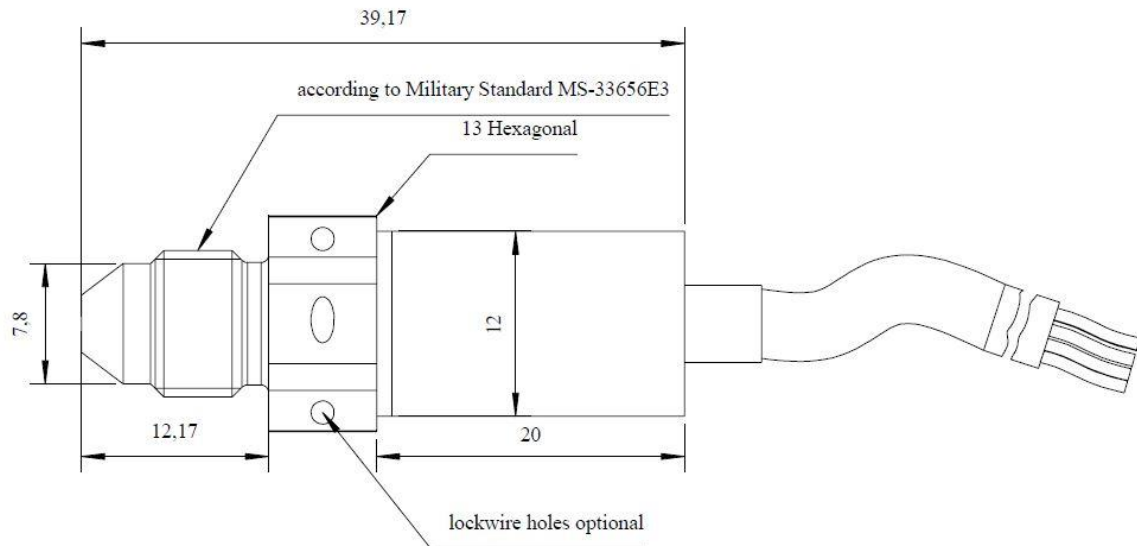
<u>General Electrical Specification</u>		
Feature	Unit	Data
Supply Voltage	VDC	5 ... 32V depending on Output
Supply Current	mA	2 ±20% for Bridge Output < 10 for any other Voltage Output Options
Operating Temperature Range	°F	- 40 ... + 260 (-40 ... +300 opt.) (-328 ... +500 for Bridge Output on request)
Nonlinearity	%FS	< ±0.5 (<±0.25 optional)
Hysteresis	%FS	< 0.2
Repeatability	%FS	< 0.1
Pressure Overload (non destr.)		2 * nominal pressure
Burst Pressure		5 * nominal pressure
Electrical Connection		Please see option list
Vibration Test (on request)	According to DO 160 Cat H and Cat R	No influence on the output signal no defects

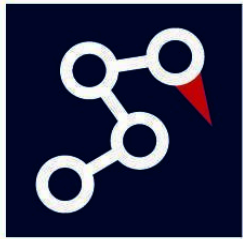
Other data on request



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Mechanical dimensions (Example):





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Ordering Codes:

MPT6-GGGGG-O-T-E-M

G: Pressure Range in PSI

- O: Output
- 1 = Voltage ratiometric (0.5 ... 4.5V @ 5Vss)
 - 2 = Voltage fixed 0.5 ... 4.5V
 - 3 = Voltage fixed 0 ... 10V
 - 4 = Bridge Output
 - 5 = Current Output 4 ... 20 mA
 - 6 = Custom

T: Temperature Range

- 1 = -13 ... 257F
- 2 = -40 ... 302F
- 3 = -328 ... 500F (Bridge Output only)

E: Electrical Connection

- 1 = Cable (standard)
- 2 = Cable for T=2
- 3 = Cable for T=3
- 4 = Custom

M: Pressure Port Options

- 1 = Metric M6
- 2 = Metric M8*1
- 3 = Metric M10*1
- 4 = MS-33656 -2
- 5 = MS-33656 -3
- 6 = MS-33656 -4
- 7 = Custom

Remarks:

1. Not all options can be combined
2. The final dimensions are depending on the required options
3. Customized transducers will have an individual mechanical drawing
4. Full custom devices can be developed and manufactured even at small quantities.