

MPT Series

Pressure Transducer



Technical data

Clogging indicators

Pressure Transducer

The T200 / T201 series is suitable for both mobile and industrial applications. Its small profile is ideal for space constraints. The body is machined from a single piece of 304SS to provide added protection for the internal electronics. A piezoresistive ceramic sensor along with ASIC signal conditioning provides an excellent thermally compensated output.

Standard Features

- Piezoresistive Ceramic Sensor
- ASIC Signal conditioning

Applications

- Industrial Equipment
- Safety Monitoring
- Mobile Equipment

Materials

Ceramic Al_2O_3
NBR (Standard) or Optional: FKM, HNBR, EPDM

Specification

Accuracy: 0.5% BFS
Long term drift: < 0.3% FS @ 77°F (25°C)
Process connection: SS304
Vibration: 10g (20-2000Hz) for ≤ 58 PSI (4 bar)
20g (20 - 500Hz) for ranges > 58 PSI (4 bar)
Shock: 50 g (11 ms)
Protection: Overvoltage, Short circuit, Reverse polarity protection
Ingress protection: IP67 (IP65 for M2 Electrical Connection)
Response Time: < 1 ms

Pressure

- Pressure range: from 0 to 7,500 psi (517 bar)
- Proof Pressure: 140% to 200% FS based on range (consult factory)
- Burst Pressure: 180% to 400% FS based on range (consult factory)

Compliance

- IEC/EN 61000-4-3(2006) 100V/m 80-1000MHz
- IEC/EN 61000-4-4(2004) Class 3
- IEC/EN 61000-4-6(2006) 3Vrms 0.15-80MHz
- ROHS

Temperatures

Thermal error:

- 7.5 psi ≥ 100 psi: 0.01% FS/°F (0.018% FS/°C)
- 100 psi > 400 psi: 0.009% FS/°F (0.016% FS/°C)
- 400 psi ≥ 1000 psi: 0.011% FS/°F (0.019% FS/°C)
- 1000 psi > 3000 psi: 0.012% FS/°F (0.021% FS/°C)
- 3000 psi ≥ 7500 psi: 0.018% FS/°F (0.028% FS/°C)

Compensated temperatures:

- MPT200 Series: from 32°F to 185°F (from 0°C to 85°C)
- MPT201 Series: from -40°F to 257°F (from -40°C to 125°C)

Operating temperatures:

from -40°F to 257°F (from -40°C to 125°C)

Storage temperature rating:

from -40°F to 275°F (from -40°C to 135°C)

Weight

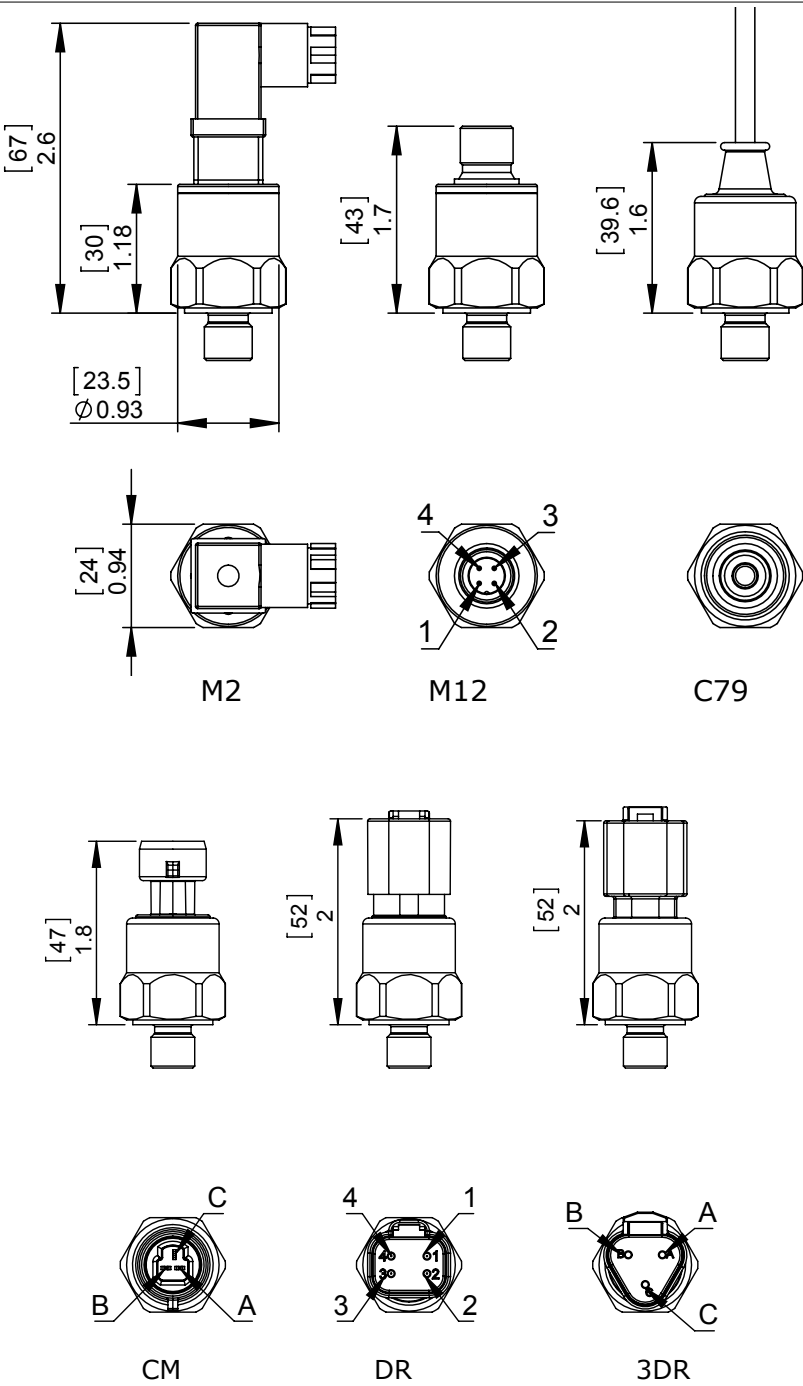
0.15 lbs (0.06 kg)

MPT	
Series	Example : MPT200 0100P G 3 M2 4M N T1 SR
MPT200	Compensated Temperat. Range 32°F to 185°F (0°C to 85°C)
MPT201	Compensated Temperat. Range -40°F to 257°F (-40°C to 125°C)
Pressure range	
psi	bar
0015P 15 psi	001B 1 bar
0030P 30 psi	002B 2 bar
0100P 100 psi	005B 5 bar
0150P 150 psi	010B 10 bar
0300P 300 psi	020B 20 bar
0400P 400 psi	050B 50 bar
0600P 600 psi	100B 100 bar
1000P 1000 psi	200B 200 bar
1500P 1500 psi	400B 400 bar
3000P 3000 psi	500B 500 bar (**)
5000P 5000 psi	
7500P 7500 psi (**)	
Reference	
A	Absolute
G	Gauge
S	Sealed
Output	
2	4 - 20 mA (2 wire)
3	0 - 10 V (3 wire)
4	0.5 - 4.5 V ratiometric
5	0-5 V (3 wire)
6	1 - 5 V (3 wire)
7	0.5 - 4.5 V (3 wire)
8	1 - 6V (3 wire)
9	0.25 - 10.25 V (3 wire)
Electrical connection	
M2	DIN 43650C (Mini DIN)
M12	M12, 4 pin
C79	Shielded Cable 79 inches (2 meter)
DR	Deutsch Receptacle DT04-4P
DR3	Deutsch Receptacle DT04-3P
CM	Packard, Metripack, 150 Series (PS2)
Process connection	
2M	1/8" NPT male
4M	1/4" NPT male
4G	1/4" BSPP male - G1/4
4S	7/16" - 20 SAE male with O-ring seal
6S	9/16" - 18 SAE male with O-ring seal
Seals	
N	NPR (standard)
V	Viton
H	HNBR
R	EPDM
Accuracy	
T1	0.5% BFSL
Options	
SR	Snubber

Other material and options available upon request. Custom design available. Please consult factory.

(**) 7500 psi (500 bar) is only available with 7/16 SAE thread and 9/16 SAE thread.

Dimensions



Connector	Output				
	4 - 20 mA		Voltage		
	Supply +	Supply -	Supply +	Common	Output +
M2	1	2	1	2	3
M12	1	3	1	3	4
C79 - C158	Red	Black	Red	Black	White
DR	2	1	2	1	4
3DR	A	B	A	B	C
CM	B	A	B	A	C