

## Model M200 Pressure Transducer Automotive (12 Volt), Industrial Grade



### STANDARD FEATURES

- Outputs - 4-20mA, 0-5V & 0-10V – custom outputs available
- Pressure ranges 0-50 through 0-20,000 PSIA or PSIS
- Accuracies to 0.1% BFSL
- Strain Gauge sensor technology for high temperature stability
- Eliminate Noise – Maximum RFI/EMI protection on every transducer
- Unparalleled long-term stability
- Temperature compensation at the sensor element.
- Custom designs available (contact factory)
- Operates off of standard automotive power

### OPTIONAL FEATURES

- Customer specified electrical terminations
- Custom customer specified calibrations

The PT Instruments Model M200 is a strain gage transducer designed for automotive applications. This series can be used to measure hydraulic, pneumatic, cooling, lubrication, air-conditioning and fuel system pressures. These rugged, lightweight transducers are specifically designed for use in over-the-road and off-road vehicles. They are significantly smaller than anything else available on the market and feature all welded stainless steel construction. They are designed to stand up to rugged environmental conditions. By operating off of standard automotive power you eliminate the need for a power supply. The M200 series has its own internal voltage regulator so it is unaffected by input voltage fluctuations.

<b>Performance @ 25°C (77°F)</b>		<b>Electrical Data</b>	
Over pressure protection:	200% Rated Pressure	Excitation:	10.5-18 VDC, reverse polarity protected
Burst Pressure:	250% Rated Pressure	Output at Zero Pressure:	0 +/- 1% F.S.
Non-linearity & Hysteresis combined:	+/- .15% F.S.	Full Scale (F.S.) Sensitivity:	5.0 +/- 0.5 VDC
Max. (best fit straight line method) (1)		Input/output isolation:	Not isolated
Repeatability:	Within +/- .05% F.S. max.	Input current:	Less than 25mA
<b>Environmental Data</b>		<b>Mechanical data</b>	
Operating temp:	-54 to +125°C (-65 to +257°F)	Sensor wetted material:	15-5 PH stainless
Storage temp:	-54 to +125°C (-65 to +257°F)		17-4 PH stainless optional
Compensated range:	-34 to +71°C (-30 to +160°F)	Body and Pressure Cavity:	Stainless Steel
Temp comp Zero:	<±0.5% FS		hermetically sealed
Temp comp Span:	<±0.5% FS	Pressure connection:	Per MS33649-4 mates with MS33656-4-E4 using MS28775-012 O-ring (2)
Acceleration:	20 G's per MIL-STD-810, 513.1, method 513.1, PROC. I	Weight:	8 ounces nominal
Vibration:	20 G's per MIL-STD-810, method 514.1, PROC. V, PART I	Electrical Connection:	Cable, DIN, Cannon, (others available on application) see pg. 2
Shock:	30 G's per MIL-STD-810, method 516.1, PROC. IV		

- (1): Error due to combined effect of shock, vibration and acceleration shall be less than (1)  
 (2): Pressure transducers designated PSIS have sealed reference chambers. The output

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Ordering guide – Example: 1000-A-(0-500PSI)-2-D-5-EC2

A	(0-500)	2	D	5	EC1
Pressure Port	Range	Units	Output	Accuracy	Connector
A=1/4" MNPT B=SAE-4 (w/o-ring) C=Other D=1/8"MNPT E=Autoclave F250C	Specify Pressure Range in PSI, BAR, kPa or inches WC	1=Absolute 2=Gauge 3=Vacuum 4=Sealed 5=Compound 6=Other	D=4-20mA E=0-5VDC F=0-10VDC M=mV/V X=Other (4-wire, isolated versions available – Contact Factory)	5=0.5% BFSL* 2=0.2% 1=0.1%	EC1=36" pigtail EC2=DIN 43650 with mate- Large EC3=Mini DIN EC4=Bendix 6-pin EC9=1/2" NPT conduit connection with 36" leads ECT=Turck M12 ECX=Other

\*BFSL = Best Fit Straight Line

### Dimensions:

(For reference only: Actual dimensions may vary, contact PT Instruments for exact dimensions for your applications)

**Drawing Coming Soon**

### Standard Wiring:

- Pin A: (+) excitation
- Pin B: (+) signal
- Pin C: (-) signal
- Pin D: (-) excitation

**Modifications:** Specifications on this data sheet represent the standard configuration only. We recognize that transducer applications vary and our designs are flexible. We offer options on material compatibility, pressure port configuration, electrical termination and performance characteristics.

**Warranty:** PT Instruments warrants that its product shall be free from defective workmanship and/or materials for a 12 month period from the date of shipment provided that PT Instruments obligation hereunder shall be limited to correcting any defective material FOB our factory. No allowance will be made for any expenses incurred for correcting any defective workmanship and/or material without written consent by PT Instruments. This warranty is in lieu of all other warranties expressed or implied.

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