

ML2000 Series Miniature High Performance Pressure Sensor

The ML2000 Series of high performance pressure transducers have been designed for demanding installations where space is extremely limited and high vibration and temperature are anticipated. This new design utilizes miniaturized hybrid components which allow savings in size and weight. The transducer has an enhanced performance at elevated temperature and is optimized for extreme installations. The modular construction and programmable amplifier provide a fast delivery time for standard and custom configurations. Pressure ranges are available between 2.5 – 6000 psi. For OEM applications, we have many options available for customization.



Technical Specifications

Pressure Reference	Absolute and Gauge
Standard Pressure Ranges (psi)	2.5, 5, 10, 15, 20, 25, 50, 75, 100, 150, 200, 300, 500, 750, 1000, 1500, 2000, 3000, 4000, 5000, 6000 Consult factory for ranges not listed.
Proof Pressure (Overload)	Ranges ≤ 1500 psi = 4X FS, Ranges 1501 psi to 3000 psi = 3X FS, Ranges > 3000 psi = 2X FS
Static Accuracy	±0.2% FS Combined Nonlinearity, Repeatability, and Hysteresis (Standard) ±0.1% FS and ±0.08% FS Available
Output	4–20 mA or 0.5–4.5 Vdc
Power Supply	8–30 Vdc or 5V Ratiometric (Voltage Output) 9–40 Vdc (Current Output)
Operating Temperature Range	-40°F to +300°F (-40°C to +150°C)
Compensated Temperature Range	Standard: -40°F to +255°F
Total Error Band (TEB), Includes Static Accuracy, Thermal Performance & Zero and Span Set	± 0.25% Span (Voltage) ± 0.6% Span (Current Loop) (For other ranges, consult factory)
Bandwidth	1000Hz (Standard) Frequencies up to 5000Hz available (Consult Factory)
Wetted Material	Super Duplex (Zeron 100) (Standard) Titanium, Hastelloy (Optional)
Fill Oil	Halocarbon (Standard) Others available (Refer to Page 2)
Electrical Connection	Cable Options: PUR, FEP, DR25 Connector Options (Refer to Page 2)
Process Connection	Imperial and Metric Ports Available (Refer to Page 2)
Protection Class	IP67 (Cable Option) Hermetic Connector (Absolute Reference)
Vibration	Up to 5kHz Sine at 100g
Weight (Typical)	1.9oz (Not Including Cable), 1.7oz (Connector Option)

Features

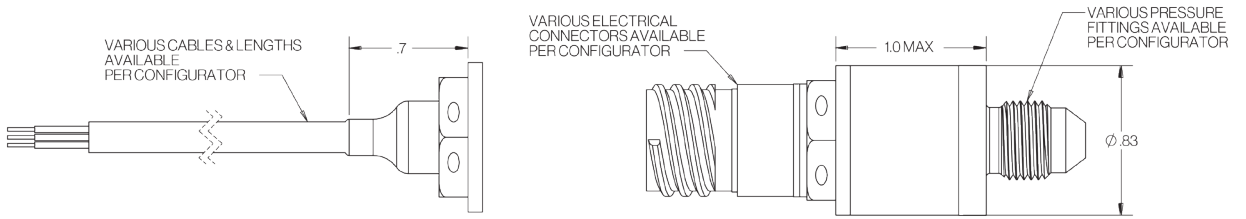
- Lightweight
- 2.5 to 6000 psi
- ±0.08% Accuracy
- Current and Voltage Outputs
- -40 to +300°F
- Up to 6000 psi

Applications

- Aerospace
- Space
- Motorsports
- Test and Measurement
- Fuel Cell
- Life Science
- Vehicle Development
- Industrial

*PMC-STS, Inc. adopts a continuous development program which sometimes necessitates specification changes without notice.

Mechanical Details



Part Number Configurator

	Electrical Connector	Output	Pressure Range	Reference	Pressure Connector	Supply	Output	Accuracy	TEB	Oil Fill	Cable Length
MODEL	ML23										
ELECTRICAL CONNECTOR	Polyurethane Cable 0 FEP Cable 1 FEP Cable w/ Fuel Resistant Sleeving (DR-25) 2 D38999/27YA35PN (Hermetic) 3 M12 (Environmental) 4 M26482 (10-6, Hermetic) 5 8STA1Y0205PN170 (Hermetic) 6 805-006-13Z18-6PA (Hermetic) 7 Cable with Connector 8 Special 9										
OUTPUT		Future Option 0 Future Option 1 Voltage (0.5 - 4.5Vdc) 2 Current Loop (4-20mA) 3									
PRESSURE RANGE			A 2.5 B 5 C 10 D 15 E 20 F 25 G 50 H 75 J 100 K 150 L 200								
REFERENCE				Gage A Future Option B Absolute C							
PRESSURE CONNECTOR					H 7/16-20UNF with Cone J 5/16-24UNF without Cone K 3/8-24UNF without Cone L 7/16-20UNF without Cone M 5/16-24UNJF with Cone N 3/8-24UNJF with Cone P 7/16-20UNJF with Cone						
SUPPLY						5V Ratiometric A 8 to 16Vdc B 9 to 40Vdc C 9 to 36Vdc D Special X					
OUTPUT							0.5 to 4.5Vdc A 0 to 5Vdc B Current Loop X				
STATIC ACCURACY								Consult Factory (Volts) A1 Consult Factory (Current) A2			
TEB								Consult Factory (Volts) T1 Consult Factory (Volts) T2			
OIL FILL									AS100 (Std Silicone Oil) F1 PAO-4 (Non-Silicone, Food Grade, Painting) F2 Dowsil™ 510 (Radiation Resistant) F3		
CABLE LENGTH											Specified in inches CX

4-20mA Current Loop

Electrical Connections

Cable Option		
+Supply	Return	Factory Use Only
Red	Black	White

Connector Option			
+Supply	Return	Factory Use Only	Not Connected
Pin 1 (A)	Pin 2 (B)	Pin 3 (C)	All Others

Voltage Output

Cable Option		
+Supply	Common	+Output
Red	Black	White

Connector Option			
+Supply	Common	+Output	Not Connected
Pin 1 (A)	Pin 2 (B)	Pin 3 (C)	All Others