

P-M10 Series

M10 Miniature Pressure Sensor

Ref : 602

Rev : B



DESCRIPTION

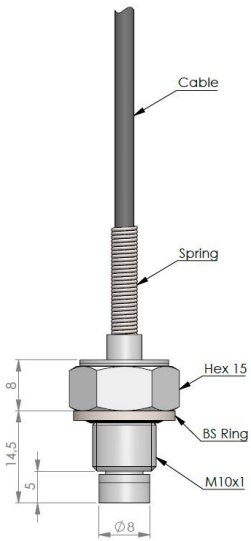
These miniature pressure sensors are designed to make static measurements of pressure as well as dynamic in industrial environments. Made in stainless steel in a fully welded design, these flush membrane sensors are compatible with a great number of corrosive and conductive fluids.

Available in low level or amplified output, the integrated electronic is able to deliver an analog tension or current loop signal.

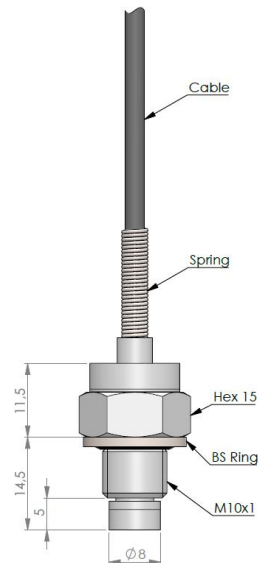
TECHNICAL DATA

MODEL		Low-level output (mV)			5V amplified output				4-20mA current loop		
INPUT	BAR	1	2	5	10	20	35	50	100	200	350
Pressure Range	PSI	15	30	75	150	300	500	750	1500	3000	5000
Pressure Type		Absolute, Relative or Sealed									
Over Pressure		2 Times Rated Pressure									
Burst Pressure		5 Times Rated Pressure (3 Times Rated Pressure for the 350 BAR range)									
Pressure Media		Any Liquid or Gas Compatible With 15-5 PH or Stainless Steel									
Electrical Input		500 – 1500 Ω			< 30 mA				< 30 mA		
Supply voltage		10 VDC regulated			13 – 32 VDC				10 – 26 VDC		
OUTPUT											
Sensitivity/Full Scale Output (FS)		10 mV/V (5 mV/V for 1 BAR range)			5 V ± 150 mV				20 mA ± 0.4 mA		
Output Impedance		500 – 800 Ω			1 kΩ				1 kΩ		
Zero offset at 20 °C		± 1 mV/V			0 to 100 mV				4 mA ± 0.4 mA		
Bandwidth (-3dB)		3 kHz									
Combined Non-Linearity & Hysteresis		± 0.50% FS (Max)									
Repeatability		± 0.2% FS									
Insulation		> 100 MΩ @ 50 Vdc									
ENVIRONMENTAL											
Operating Temperatures		-40 °C to 120 °C			-40 to 80°C				-20 to 80°C		
Compensated Temperatures		0 °C to 60 °C (<i>see Options for other range</i>)									
Thermal Zero Shift		< ± 3% FS / 50 °C									
Thermal Sensitivity Shift		< ± 2% FS / 50 °C									
PHYSICAL											
Resonant frequency	kHz	30	30	35	50	69	79	109	154	218	288
Electrical Connection		CABLE OUTPUT: 4 x 30 AWG Shielded Cable 2m long (<i>see Options for other length</i>) OPTION: Integrated COMTRONICS CMR-02-E-04-P connector (<i>sold with mating connector mounted on a 2m extension cable with option on length</i>)									
Mechanical Connection		M10x1.0									
Material		Z8CND17.04 (RM > 90 HBAR)									
Index of Protection		IP50 (<i>standard</i>) IP67 (<i>see Options</i>)									
Pressure Sensing Principle		1 and 2 BAR range: Full Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Other range: Half Wheatstone Bridge Dielectrically Isolated Silicon on Silicon									
Sealing		BS Ring Ø15.88mm x 2mm (-40°C to 135°C)									
Mounting Torque		10 Nm Max									

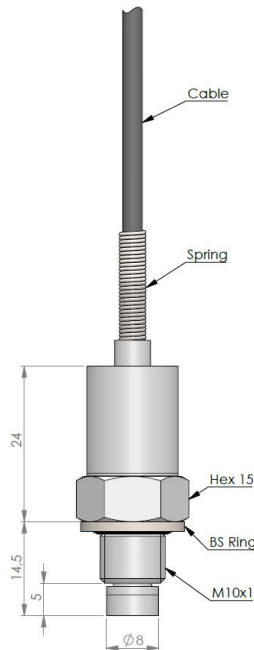
SIZE



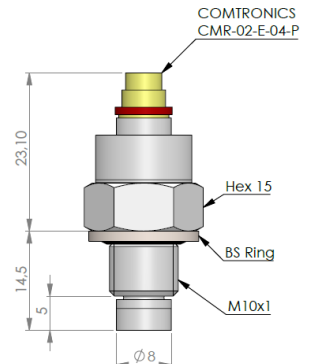
LOW LEVEL
CABLE OUTPUT



5V AMPLIFIED
CABLE OUTPUT

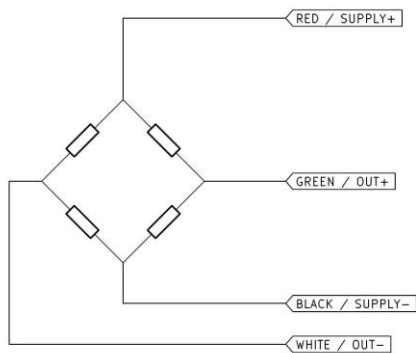


4-20mA
CABLE OUTPUT

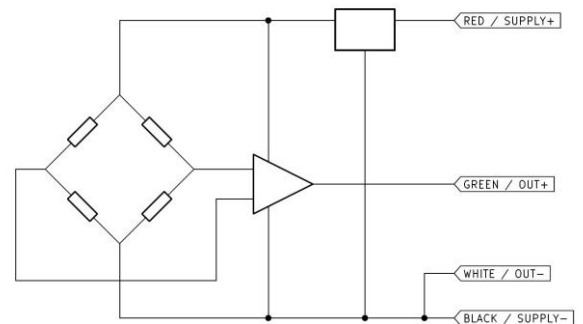


5V AMPLIFIED
CONNECTOR OUTPUT

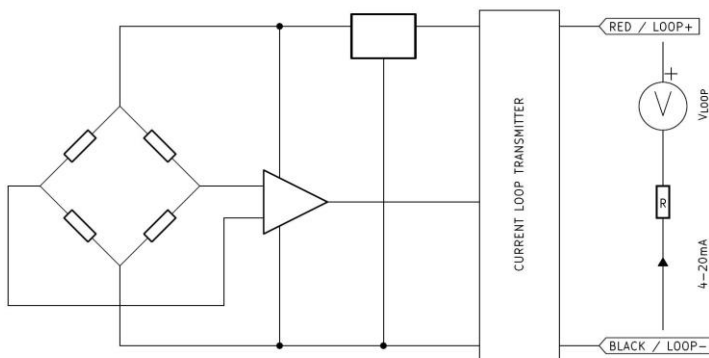
WIRING



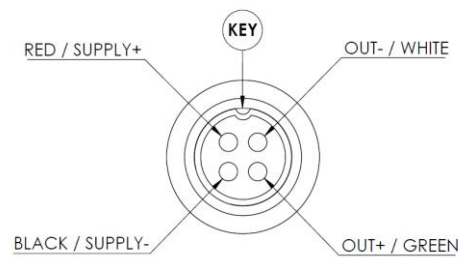
LOW LEVEL



5V AMPLIFIED



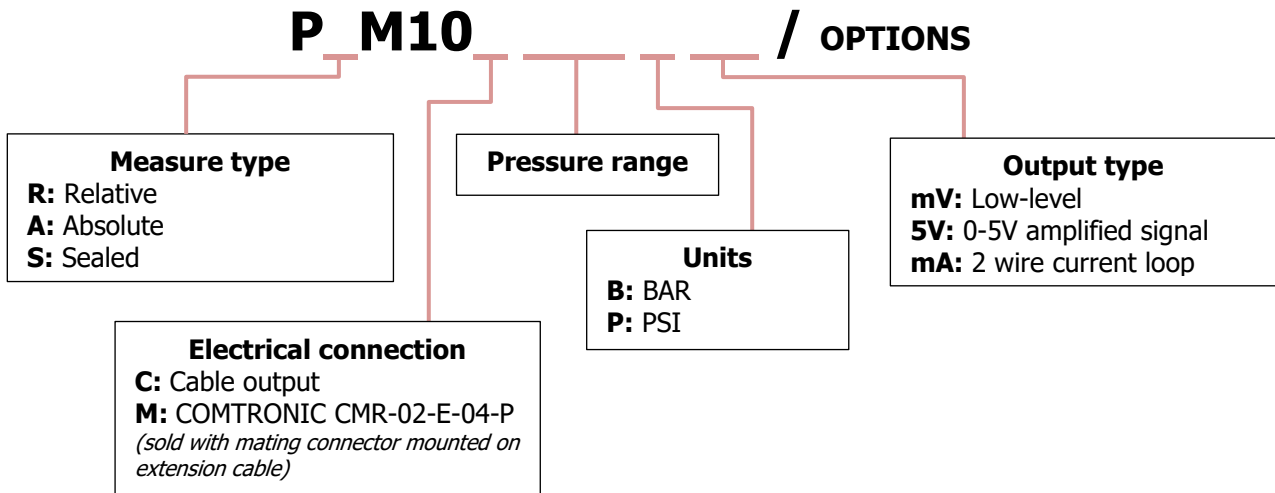
2 WIRE 4/20mA CURRENT LOOP



(view from sensor's output side)
(colors are about the extension cable)

COMTRONICS CMR-02-E-04-P PINOUT

ORDERING INFORMATION



Options	Reference	Description
Compensated temperature range	Empty C1 C2	0°C to +60°C -40°C to +120°C -40°C to +200°C
Cable length	Empty LxxM LxxF	2m standard length xx: custom length in meter xx: custom length in foot

Examples:

PAM10C10BmV

- Measure type: Absolute
- Pressure range: 10 BAR
- Low-level signal
- 2m standard cable output

PSM10M350B5V/L6MC2

- Measure type: Scaled
- Pressure range: 350 BAR
- COMTRONIC CMR-02-E-04-P Connector + 6m extension cable with mating connector
- 0-5V amplified signal output
- Temperature compensation: -40°C to +200°C

REVISIONS HISTORY

REVISION	DATE	DESCRIPTION
B	07/02/2025	Updated to new template Added COMTRONICS Connector output option "M" Added COMTRONICS Connector pinout Added dimensional drawing of the COMTRONICS Connector version Added white wire on 5V amplified schematic Correction of English description text
A	15/03/2019	Creation

CONTACT

MESUREX
13 Rue des Corroyés
78730 Saint Arnoult en Yvelines (France)

Tel : +33 (0) 1 30 41 23 62
Mail : mesurex@mesurex.fr
Web : www.mesurex.fr