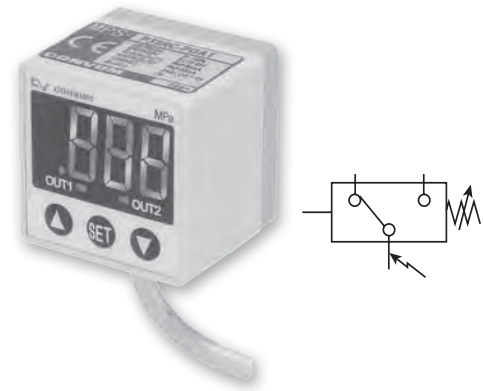


## MPS-33, 1-Color Panel Mount Pressure Sensor

### Features

- Sensor output:
  - 2 NPN or PNP open collector
  - Transistor output, 30VDC, 125mA with
  - Analog output, 1 to 5VDC
- Output response time less than 2.0 milliseconds
- RoHS
- Air and non-corrosive gases



### Programming options

Outputs change N.O. / N.C.	✓
Units of measure change	✓
Hysteresis mode	✓
Window comparator mode	✓
Auto teach mode	✓
Output response time	✓
Lockout option	✓
Password lockout	—
Max. value display	✓
Min. value display	✓
Zero reset	✓
Red LED display	✓
Error output mode	✓

### MPS-33 Sensor Only Ordering Numbers

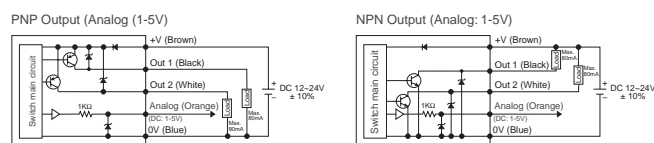
Pressure range	Electrical output	Electrical connection	Part number	
			1/8 NPSF Female	1/8 BSPP Female
0-30 inHg	(2) PNP with (1) 1-5VDC	2M 5 wire lead wire	<b>MPS-V33N-PGAT</b>	<b>MPS-V33G-PGAT</b>
0-30 inHg	(2) NPN with (1) 1-5VDC	2M 5 wire lead wire	<b>MPS-V33N-NGAT</b>	<b>MPS-V33G-NGAT</b>
-14.5 to 72 PSI	(2) PNP with (1) 1-5VDC	2M 5 wire lead wire	<b>MPS-R33N-PGAT</b>	<b>MPS-R33G-PGAT</b>
-14.5 to 72 PSI	(2) NPN with (1) 1-5VDC	2M 5 wire lead wire	<b>MPS-R33N-NGAT</b>	<b>MPS-R33G-NGAT</b>
0-145 PSI	(2) PNP with (1) 1-5VDC	2M 5 wire lead wire	<b>MPS-P33N-PGAT</b>	<b>MPS-P33G-PGAT</b>
0-145 PSI	(2) NPN with (1) 1-5VDC	2M 5 wire lead wire	<b>MPS-P33N-NGAT</b>	<b>MPS-P33G-NGAT</b>

### MPS-33 Accessories

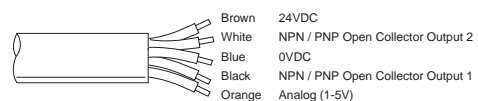
Description	Part Number
Panel mounting bracket Note : Add "H" in suffix of Sensor Only Part Number to include with sensor	<b>MPS-ACCH8</b>
Surface mounting bracket Note : Add "K" in suffix of Sensor Only Part Number to include with sensor	<b>MPS-ACCK8</b>

**Example:** MPS-P33N-PGAT**K**, includes sensor MPS-P33N-PGA with bracket MPS-ACCK8

### Internal circuit for open collector and analog output wiring



### Lead wiring



Most popular.

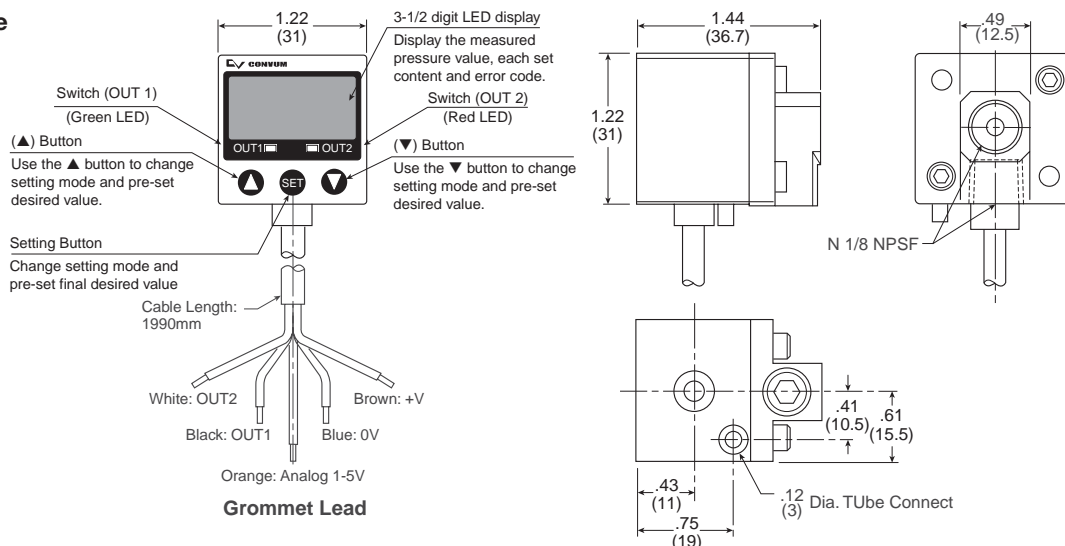


**Operating information**

	Vacuum (V)	Compound (R)	Positive (P)
Pressure range	-101.3 - 0 kPa (-14.5 to 0 PSI)	0 - 500 kPa (0 to 72 PSI)	-0.1 - 1 Mpa (0 to 145 PSI)
Proof pressure	0.3 Mpa (44 PSI)	0.8 Mpa (116 PSI)	1.5 Mpa (218 PSI)
Display resolution, Units of measure	0.1, kPa	1, kPa	0.001, Mpa
	0.001, kgf/cm <sup>2</sup>	0.01, kgf/cm <sup>2</sup>	0.01, kgf/cm <sup>2</sup>
	0.001, bar	0.01, bar	0.01, bar
	0.01, PSI	0.1, PSI	0.1, PSI
	0.1, inHg	—	—
	1, mmHg	—	—
	0.1, mmH <sub>2</sub> O	—	—
Media	Air & non-corrosive gases, incombustible gases		
Pressure port	<b>(N)</b> 1/8" NPSF, <b>(G)</b> 1/8" BSPP female		
Operating temperature	32 to 122°F (0 to 50°C)		
Storage temperature	-4 to 140°F (-20 to 60°C)		
Humidity	40 - 85% RH (no condensation)		
Electrical connection	<b>(G)</b> Grommet open lead, 5 wire (0.15mm <sup>2</sup> )		
Power supply	12 to 24VDC ±10% or less, Ripple (Vp-p) 10% or less		
Display	3 + 1/2 digit, 1 color, 7-segment RED LED		
Display refresh	.1 to 3.0 Seconds, Variable (factory set at 0.1)		
Control output	NPN (Sinking), PNP (Sourcing), Open collector, max 80mA, 2 output		
Analog output	1 to 5VDC ≤ ±2.5% F.S. Linearity ≤1% of F.S.;		
Switch output	Output signal, NPN or PNP, Normally open or closed, LED indicator		
Output indicator	Green LED (OUT1), Red LED (OUT2)		
Output modes	Hysteresis or Window Comparator		
Response time	≤ 2.5ms (chattering-proof function: 24ms, 192ms, 786m selections)		
Repeatability	± 0.2% of F.S. ± 1 digit or less		
Thermal error	≤ ± 2% of F.S. or less at range of 32 to 122°F (0 to 50°C)		
General protection	IP65, CE marked, EMC-EN61000-6-2: 2001, with dust tube connection		
Current consumption	<55mA		
Vibration resistance	10 to 150Hz, Double amplitude 1.5mm, XYZ, 2 hrs.		
Shock resistance	980 m/s <sup>2</sup> (about 10G), 3 times/each directions X, Y, Z		
Noise resistance	Vp-p400V, 10 ms, 0.5µs noise simulator		
Material	Housing: ABS (gray) , Pressure port: Zinc die-cast, Diaphragm: Silicon		
Mass	3.3 oz. (105g) (including cable)		

**Dimensions**

**1/8" Female**



**C**  
**Pressure Sensors**  
**Vacuum Products**  
 MPS-33 Series  
 MPS-34 Series  
 SCP01 Series  
 SCP5D Series  
 Cables

