Features

- Differential pressure sensor
- Pressure range up to 100 kPa covering most applications in geotechnical or hyrdodynamical testing
- Miniature design with cylindrical (⌀6.4 mm) or M8-bolt housing
- Temperature compensated & unamplified analog sensor
- Titanium construction with ultra-flexible cable (⌀2 mm)
- IP68 ingress protection

Applications

- Laboratory testing
- Centrifuge testing
- Offshore/field testing

General description

The miniature pressure sensor series is specifically designed to investigate differential pressures within the range of 100 kPa. They are commonly used in geotechnical or hydrodynamical applications to measure pore pressure or fluid pressure (static or dynamic), respectively. The product offers two exceptional miniature designs with the pressure sensor housed in a cylindrical cup or in a M8 Socket Head Cap Screw.

Manufactured from Titanium (Grade 5), both sensor designs provide a rugged and lightweight construction, resisting pitting and other corrosive effects of any fluid.

The analog pressure sensor can measure the differential pressure of up to 100 kPa between wet/air, air/wet and wet/wet media. The unamplified sensor signal is temperature compensated offering high accuracy even for low differential pressures.

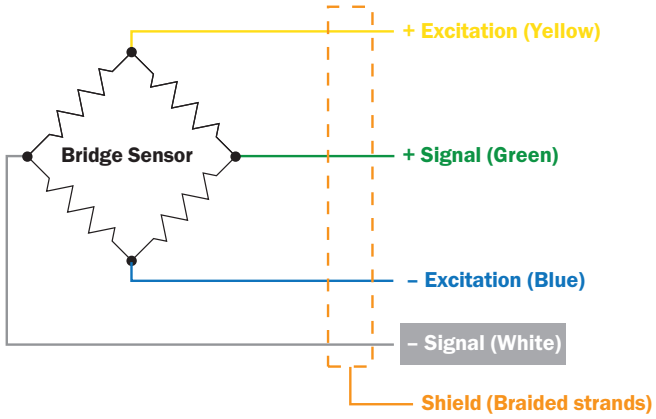
In addition to the standard sensors shown, MSMT Solutions has the engineering capability to design pressure sensors to specific individual requirements. Through careful consideration of the configuration, operating environments, compatibility and other important performance characteristics, our engineering team can design, build and test instruments for your needs.

Technical specification of pressure sensor

Electrical	
Rated Output	9.5 – 10.5 mV/V
Supply Voltage	3–12 Vdc
Input resistance	5 – 12 kOhm
Output resistance	1 – 3 kOhm
Connection	⌀ 2 mm, #28 AWG, 4 conductor, shielded cable, 4 m long
Performance	
Zero offset	± 1.5 mV
Linearity	± 0.5% of FS
Hysteresis	± 0.2% of FS
Repeatability	± 0.2% of FS
Temperature	
Operating Temperature	-20 to +60°C
Compensated Temperature	0 to +60°C
Mechanical	
Safe Overload	200% of RO
Ultimate Overload	300% of RO
Material	Titanium (Grade 5)
Ingress protection	IP 68

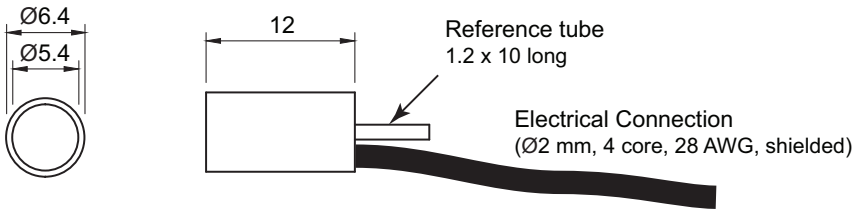
RO: Rated Output, FS: Full Scale

Wiring Code	
Yellow	+ Excitation
Blue	- Excitation
Green	+ Signal
White	- Signal
Braided strands	Shield



Drawing of pressure sensor
(Dimensions in mm)

Cylindrical housing



Bolt housing