



bar

## APR3914

Subsea Pressure Transmitter

### FEATURES

- Suitable for ROV and deep sea test equipment
- Silicon-on-Sapphire sensor technology for outstanding performance
- Submersible to 3,000 meters sea level
- High Accuracy option
- Hyperbaric testing to 3,300m depth
- Pressure ranges available to 1,000 bar
- Environmental Stress Screening (ESS Testing)
- Comprehensive documentation package and certification



The advanced sensor design consists of a piezoresistive silicon strain gauge circuit, which is epitaxially grown onto the surface of a sapphire diaphragm to form a single crystalline structure. The sapphire sensor element is then molecularly bonded to a titanium alloy subdiaphragm.

This enables the sensor to endure higher over-pressures and provides superb corrosion resistance. The sensor exhibits virtually no hysteresis and excellent long-term stability over wide temperature ranges.

### SPECIFICATIONS

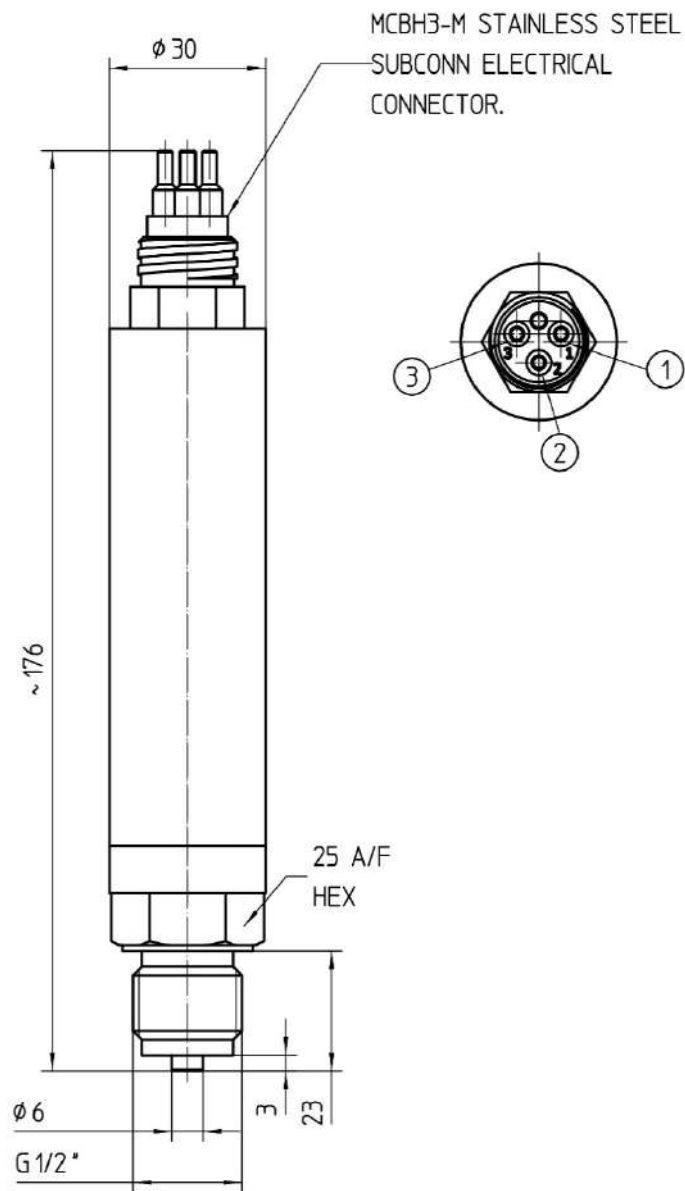
The PROTRAN® PR3914 subsea pressure transmitter has been designed to meet the demanding requirements of pressure measurement at deep levels of immersion especially in oil industry applications and can be configured to suit a multitude of applications.

Housed in fully welded body with wetted parts conforming to the NACE recommendation for material corrosion resistance, this product will provide a durable solution for long-term accurate pressure measurement even when permanently situated in extreme depth sub-sea environments.

Intended for permanent immersion the product can withstand external pressures of up to 6,000 metres depth water. Secondary provides secondary pressure containment up to 1,650 bar. Units can be supplied with hyperbaric test certificates to 3,000 metres water submersion. Electrical connection is via strong PTFE Raychem Flexlite leads.



**DIMENSIONS (in mm)**



**DISCLAIMER:** We reserve the right to change specifications without prior notice. specifications without prior notice. All manufactured products are calibrated with precision calibration equipment that is traceable to national measurement standards.



**ORDER MATRIX**

Type	APR3914
Sensor Technology:	Silicon-on-Sapphire (SoS)
Output Signal:	4-20 mA (2 wire)
Supply Voltage:	10-36 VDC
Pressure Reference:	Sealed Guage
Protection of Supply Voltage:	Protected against supply voltage reversal up to 50 V
Standard Pressure Ranges:	Typical ranges from 0-10 bar to 0-2,000 bar. Contact the sales office for further information
Overpressure Safety:	Contact the sales office for further information
Load driving Capability:	4-20mA: $RL < [UB-10] / 20 \text{ Ma}$ (e.g. with supply voltage (UB of 36V, max load (RL) is 1300)
Accuracy NLHR:	< +0.25 % of span BFSL
Zero Offset & Span	+0.10C mA
Operating Ambient Temperature:	-20C to +40C (-4F + 104F)
Operating Media Temperature:	-20C to +40C (-4F + 104F)
Storage Temperature:	+5C to +40C (+41F to +104F) Recommended Best Practice
Temperature Effects:	+0.015 %FS total error band for -20 to +70C. Typical thermal zero and span coefficients +0.005 %FS/C
Ingress Protection:	Fully welded housing. Rated IP67 when correctly installed to conduit connection.
Electromagnetic Capability:	Emissions: EN61000-6-4; Immunity: EN61000-6-2; Certification: CE Marked
Installation Resistance:	> 100 MΩ @ 50 VDC
Response time 10-90%:	1 mS
Wetted Parts:	SAE 316 stainless steel housing with titanium alloy measurement cell
Pressure Media:	All fluids compatible with SAE 316 stainless steel and titanium alloy
Pressure Connection:	Many specialised pressure connection options available to suit individual requirements. Contact the sales team for more information
Electrical Connection:	Cable outlet or Subsea connector options available
Related Product:	PT100 temperature transducer PR3919 also available. Contact Sales for details
Net. Weight (Kg):	Subject to specification