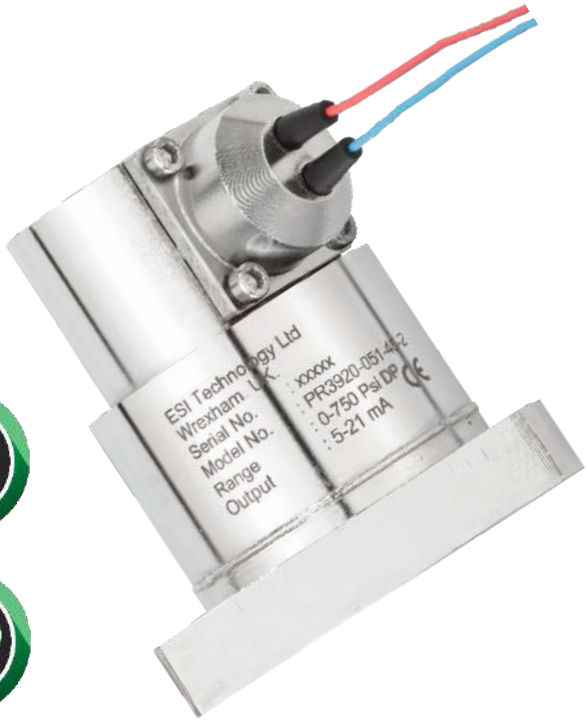
PROTRAN© PR3920

Subsea Differential Pressure Transducer



- Standard sensing range 0-50 bar DP (other ranges available)
- Up to 1,200 bar secondary containment
- Silicon-on-Sapphire sensor technology for outstanding performance
- Submersible to 3,000 meters sea level
- Hyperbaric testing and Environmental Stress Screening (ESS)
- NACE corrosion resistance
- ATEX/IECEx option available

RoHS 2011/65/EU

CE | UKCA

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 sub-diaphragm.

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

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SUCO GROUP

SUCO ESI North America

PR3920 Subsea Differential Pressure Transmitter

Technical Data

Type	PR3920
Sensor Technology:	Silicon-on-Sapphire (SoS)
Output Signal:	4-20 mA (2 wire)
Supply Voltage:	10-36 VDC
Pressure Reference:	Differential Sealed Gauge
Protection of Supply Voltage:	Protected against supply voltage reversal up to 50 V
Differential Pressure Range:	0-750psi (51 barDP) Other ranges available on request
Line Pressure:	Typically 4 x pressure range
Secondary Pressure Containment:	Up to 1,200 bar max
Load driving Capability:	4-20 mA : RL < [UB-10V] / 20 mA (e.g.g with supply voltage (UB) of 36V max. load (RL) is 1300)
Accuracy NLHR:	< +0.25 % of span BFSL
Zero Offset & Span Tolerance:	±0.2mA
Operating Ambient Temperature:	-10 °C to +70 °C (+14 °F to +158 °F)
Operating Media Temperature:	-10 °C to +70 °C (+14 °F to +158 °F)
Storage Temperature:	+5 °C to +40 °C (+14 °F to +158 °F)
Temperature Effects:	+3.0%FS total error band for -20C - +70C. Typical thermal zero and span coefficients +0.05%FS/C
ATEX/IECEx Approval Option:	EX II 1 G Ex ia IICT4 GA (Zone 0), Ex II 1 D Ex ia IIIC T135 C Da (Zone 20)
ATEX/IECEx Saftey Values:	Ui = 28 V / Li = 119mA / Pi = 0.65 W / Li = 0.1 pH / Ci = 74 nF. Temperature Range = '-20C to '+70C. Max. cable length = 45m
Electromagnetic Compatibility:	Emissions: EN61000-6-4; Immunity: EN61000-6-2; Certification: CE Marked
Insulation Resistance:	> 1G @ 50 VDC
Response time 10-90:	1mS
Operating Environment:	Sealed for immersion in pressureised dielectric fluid up to 300bar and for short periods in seawater.
Wetted Parts:	SAE 316 stainless steel with titanium alloy
Pressure Media:	All fluids compatible with SAE 316 stainless steel titanium alloy
Corrosion Resistance:	NACE compliant materials
Pressure Connection:	Face sealing mounting plate with dual redundant elastomeric O ring seals on both pressure ports
Electrical Connection:	Raychem Wire (optional cable outlet orientation available on request)
Net. Weight (Kg):	Subject to specifcation

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