

Thin-film sensor technology for OEM applications.

PS-30 Series OEM Pressure/Temp. Transmitter

- Ranges 0-10...1200 bar (G), (SG), (A)
- Pressure accuracy better than $\pm 0,1\%FS$ ($0,05\%FS$ $\Delta t=30^{\circ}C$)
- Long term stability / zero drift $0,1\%FS$ pa (can be removed with zero command in protocol to compensate drift)
- Temperature accuracy better than $\pm 0,3\% FS$ ($0,15\% FS.\Delta t=30^{\circ}C$)
- ASCII protocol interface TTL level.
- Hastalloy C22 material in all wetted parts



Pressure inlet, housing and electrical connections to customer specific requirements as requested.

Applications

- Sea depth/temperature measurements
- Liquid, steam, gas, hydraulic pressure/temperature measurements in offshore, sub-sea, process applications
- Pressure calibration equipment
- Applications powered with batteries
- Pressure/temperature monitoring and control requiring high accuracy
- To be integrated in OEM electronic systems with direct interface to micro controllers

Description

The model PS-30 pressure/temperature transmitter includes a diaphragm with thin film strain gauge and a nickel temperature sensor placed on the diaphragm surface to ensure a fast temperature step response. The integrated electronic design in this transmitter allows various parameters in calibration to optimise the different OEM customers need to accuracy in pressure and temperature measurements. The design of the sensor electronics has been developed to assure a low power consumption. This design will also suit applications powered by batteries.

The Hastelloy C22 diaphragm used in these sensors was developed and tested extensively to the highest standards. This robust design has been in service in various ScanSense Transmitters for over 15 years with an enviable reliability record and extensive use in many challenging applications subsea and offshore.

Baud rate, alarm limits, sampling rate, excitation voltage, temperature span, pressure range, etc. are adjusted in the different models of the PS-30 to fit individual customers OEM applications.

Specifications

PS-30 OEM Pressure/Temp. Transmitter

Pressure range	bar	0-10...1200 , Gauge, sealed gauge or absolute
Over pressure safety	bar	1,5 x FS
Burst pressure	bar	3 x FS
Pressure medium		Medium compatible with Hastalloy C22
Pressure inlet connection		¼ " BSP male, others on request
Permissible temperatures		
• Medium	°C	-40...+100 Custom specified compensation points. Δt=30°C
• Ambient	°C	-40...+80
• Storage	°C	-40...+80
Accuracy		
• Pressure	% of span	<± 0,1 (optional 0,05) max.Δt=30°C
• Temperature	% of span	< ± 0,3 (optional 0,15) max.Δt=30°C
Temperature step response		90% at 140 sec.
Temperature sensor resolution	°C	0,1
Sampling rate (default)		14 Hz, adjustable to 0,5 Hz
Long term drift	% of FS	± 0,1 per year, zero function command in software protocol
Input voltage	V	3,3 to 8
	V	5,7 to 16
Electrical connection		4 pin (+, -, Rx, Tx)
Power on, initializing time	s	< 1,5s
Power consumption	mA	< 2,0
ASCII protocol		SC00008, available on request
Materials		
• Wetted parts		Hastalloy C22
• Housing		Stainless Steel S-165M
Ingress protection, submersible IP 68		3000m H ² O
Secondary containment pressure	bar	1034
Weight (nominal)	kg	0,135
Length (typical)	mm	50,5
Diameter (body)	mm	27

Further Information:

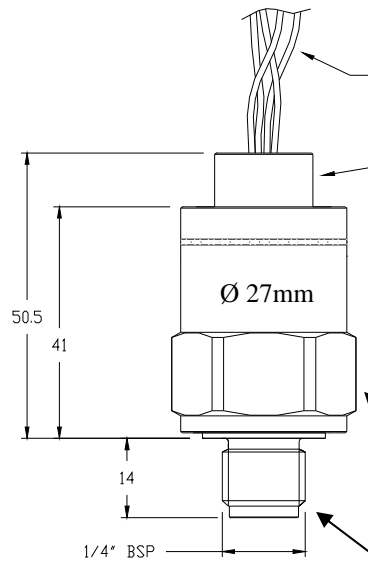
You can get further information on our website www.scansense.no, or contact us directly.

The image shows two screenshots of the ScanSense website. The left screenshot displays the 'NORWEGIAN SENSOR TECHNOLOGY' section, featuring a large underwater scene with a sensor being deployed from a vessel. The right screenshot shows the 'ROV' (Remotely Operated Vehicle) section, which includes a photograph of a yellow and black ROV and text describing the high-performance PS-30 sensor used for depth measurement. The website header includes navigation links for HOME, PRODUCTS, ABOUT US, QUALITY, APPLICATIONS, SERVICE, and CONTACT.

Manufactured by: **Scan-Sense AS**, Bekkeveien 163, 3173 Vear, NORWAY
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Many product parameters can be tailor-made according to specific OEM customer requirements, ie :

- Pressure range
- Cable/wire length
- Temp. compensation points
- Temperature accuracy
- Pressure accuracy
- Pressure port



Glass/ metal penetrator, secondary containment 15000 PSI, flying leads:

- Red (+)
- Blue (-)
- Yellow (Rx)
- Green (Tx)

Custom-designed cable/connector on request.

Housing manufactured from Stainless Steel S -165M.

1/4" BSP male pressure port connection, all wetted parts in Hastelloy C22.

Custom-designed pressure inlet on request.

Ordering Information

PS-2000 series Pressure Transmitter

Model Code:

5PS30H XXX - 003 - XV

- 300 (range 0-10.....20 bar)
- 600 (range 0-20.....40 bar)
- 121 (range 0-40.....80 bar)
- 221 (range 0-80.....150 bar)
- 451 (range 0-150.....300 bar)
- 901 (range 0-300.....600 bar)
- 182 (range 0-600...1200 bar)

003 Standard OEM model, others on request

- 2,8 V out (Voh 2,8 V Tx data)
- 5,0 V out (Voh 5,0 V Tx data)

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