

JAGUAR INSTRUMENTS, INC SUB SEA SENSORS



- PRESSURE RANGES
0 - 5,000 TO 0-22,500 PSI
- TEMPERATURE RANGES
-40 C TO 200 C
- DUAL CONTAINMENT
- HYPERBARIC PRESSURE
RATING 3000 METERS
- MOST FLANGE MOUNTINGS

DUAL PRESSURE CIRCUITS AND
DUAL TEMPERATURE CIRCUITS

SUBSEA TRANSMITTER

The Jaguar subsea transmitter is designed specifically for the rigors of subsea well head service. Each of the main elements are crafted to perform under the extreme conditions encountered in deep offshore production.

FLANGE MOUNTING

The connecting flange housing is an API design fabricated from a wide variety of corrosion resistant materials. It is a very robust design and incorporates a 6BX type ring gasket.

SENSOR HOUSING

The sensor housing is design for secondary containment. Should the primary seals fail, a secondary housing within the transmitter is capable of retaining up to 25,000 psi, thereby preventing any release to the environment. The cable housing is also rated to 5,000 psi for depths of 3000 meters.

SENSOR ELEMENTS

The temperature element is a 100 ohm Platinum Rtd. It is mounted directly onto the sensing element for zero temperature lag or offset. The pressure element is a thin film design sputtered onto Hastelloy C-22, which excels at accuracy, temperature correction, and vibration.

TRANSMITTER ELECTRONICS

The pressure sensor and the temperature sensor have separate circuits and circuit boards. Each sensor has a 4-20 mA output. The circuit boards provide complete calibration and temperature compensation. The circuits are digitally calibrated with no mechanical trim pots. The boards are potted in place to withstand vibration and shock.

Each transmitter comes with a detailed calibration sheet which shows exact milliamp reading for a specific pressure or temperature. The calibration sheet can be used to program controllers for even greater accuracy.

GENERAL SPECIFICATIONS

MTBF – Life Span	>20 YEARS
Vibration	± 5g, 25-2500 Hz
Shock	20g Half sine pulse, duration 11msec
Environmental Media	SEA WATER
Process Materials	Inconel 718, Inconel 625
Process Connection	API 6A, 2 1/16”-10,000 PSI with BX-152 Ring Groove Many other sizes available
Probe Length	To be Specified
Secondary Containment	25,000 psi
Hyperbaric Pressure	12,000 Feet of Seawater
Rating	
Operating Temperature	-40 to 177° C (process media) Other ranges available
Supply Voltage	12-30 Vdc
Current Consumption	20 mA per circuit
Output Signal	4-20 mA circuit

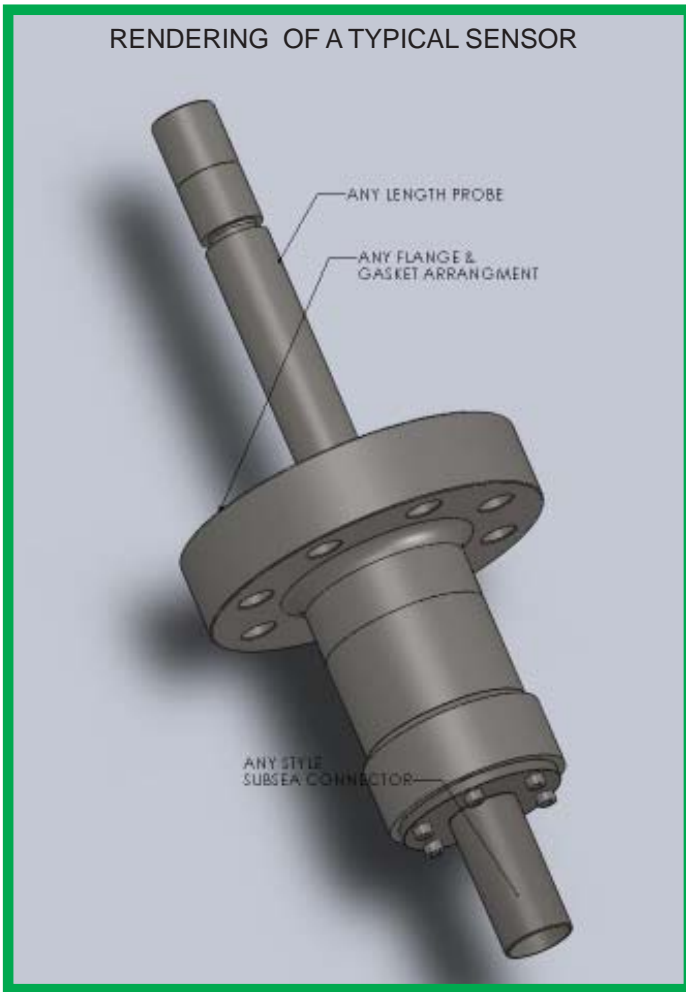
Pressure Sensor: TWO SEPARATE SENSORS AVAILABLE

Pressure Sensor	Sputtered Thin Film
Pressure Range	0-6,000 thru 0-22,500 psi
Pressure Reference	Absolute or Gauge
Maximum Over Pressure	1.5x Flange rating
Accuracy	0.2% F.S. (includes: linearity, hysteresis, & repeatability, other accuracies available)
Drift	<0.1% F.S. /Year
Temperature Effect - Span	0.01%F.S./°C
Temperature Effect - Zero	0.015%F.S./°C

Temperature Sensor: TWO SEPARATE SENSORS AVAILABLE

Sensing Element	100 Ω Rtd
Temperature Range	-40 to 150 °C (Other ranges available)
Accuracy	0.2 % F.S.
Drift	<0.1% F.S./ Year

RENDERING OF A TYPICAL SENSOR



These sensors are designed to monitor production wellheads. All sealing is done by electron beam welds and metal to metal seals to insure the integrity of long term submersion. These sensor can be had with dual pressure and dual temperature outputs for redundancy. They are extremely rugged and are typically made with high Nickel alloys such as Inconel and Super Duplex. These units may be custom tailored for customer applications.



HPHT Sensor are designed to sense pressure and temperarture at the well-head during drilling operations. These sensors can be had with a dual pressure and dual temperature output for redundancy. They are extremely rugged and are typically built on API type flanges with Inconel wetted parts. These units are usually designed to the customers unique applications.