SUBSEA PRESSURE SENSOR

ESPS 3000
SENSOR
SERIES

DESIGNED
for demanding
subsea environments

Description

The compact subsea pressure transmitter ESPS 3000 is designed for use in almost all subsea applications, and offers a reliable pressure measurement, even under harsh environmental conditions.

Excellent vibration stability, robust construction,and a high degree of EMI protection equip the pressure transmitter to meet the most stringent industrial requirements.

Next to the delivery of stand-alone sensors, Envirex Group supplies full-fledged subsea monitoring / control systems, which include all related sub-systems: mechanics, hydraulics, software, electronics, controls, and more.

Features

- High accuracy
- Wetted parts made of stainless steel
- Compact and robust design
- Pressure ranges from 0 to 2200Bar
- For temperatures up to 125°C.
- Submersible to 3000M seawater
- Service and user friendly
- 4-20mA or RS232 / CAN-Bus COMS

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SPECIFICATIONS
ESPS 3000 PRESSURE SENSOR SERIES

General Technical Specifications

Type	ESPS 3000 Series, Subsea Pressure Sensor
Materials	AISI316L

Technical Data

Accuracy (incl. nonlinearity, hysteresis and repeatability)	±0.5% FS
Thermal zero point shift	<± 0.15% FS/ 10K
Thermal span shift	<±0.15% FS/ 10K
Response time liquids(10-90%)	> 0.5 ms
Durability, P: 10-90% FS	>10 ×106 cycles

Overload / Burst Pressure Table

Nominal Pressure [bar]	250	400	600	1000*	1600*	2200*
Overload Pressure	500	800	1400	2000	2500	3000
Burst Pressure	2500	4000	>4000	>4000	>4000	>4000

* Only available with 1/4'' Medium Pressure port.

Environmental Specifications

Media Temperature Range		−40ºC → +125ºC
Ambient Temperature Range		−15ºC → +70ºC
Compensated Temperature Range		−15ºC → +70ºC
Electrical Performance Compliance		ISO 7637
Vibration stability	[20g, 10-2000 Hz, sinus]	EN 60068-2-6
Shock Resistance	[100g]	EN 60068-2-27
Pressure Reference		Athmosphere (Relative) *

* To achieve subsea reading with the local ambient pressure at depth with the zero point being equal to the ambient pressure a compensator must be connected to the sensor. Envirex can also supply suitable subsea pressure compensator on request.
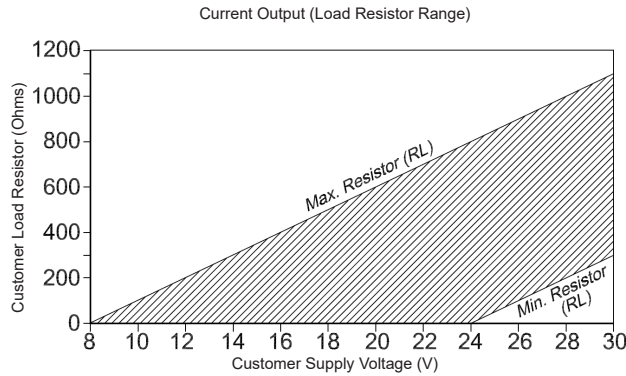
Dimensions

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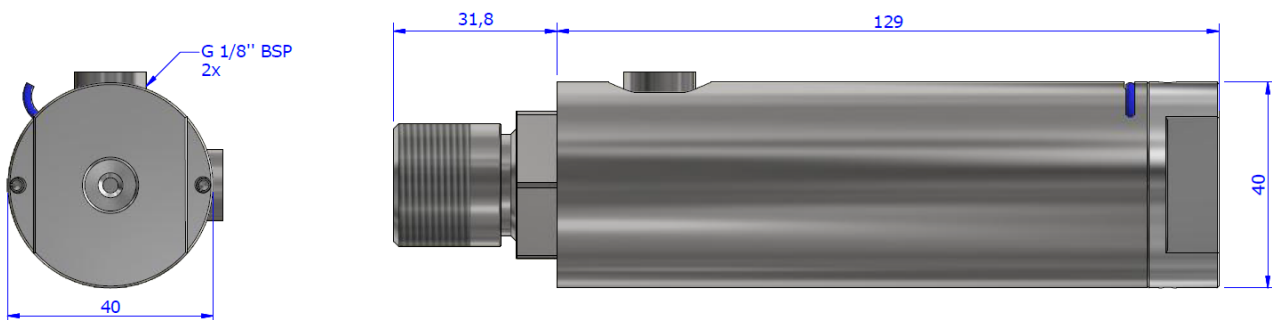
SPECIFICATIONS
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Electrical Specifications

Output Signal	4-20mA or RS232 / CAN-Bus
Supply Voltage	8 to 30VDC
Connector Type	G5507-1508*

Compatible with Burton / Seacon connectors

Load Chart

4 to 20mA output - min. / max. resistance vs supply voltage
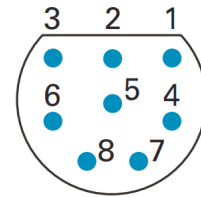

Current Output (Load Resistor Range)

Note:
Loop current should not exceed 22 mA continuous or 25 mA temporarily due to pressure peaks

Connector Pin-Out

4-20mA

Pin 01: NC
Pin 02: 24VDC
Pin 03: 4-20mA
Pin 04: NC
Pin 05: NC
Pin 06: NC
Pin 07: NC
Pin 08: NC

RS232 / CAN-Bus
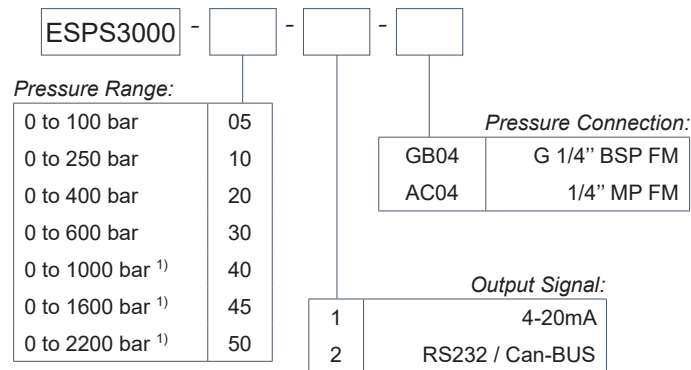
Pin 01: 0V
Pin 02: 24VDC
Pin 03: CAN Hi
Pin 04: Can Lo
Pin 05: RS232 TX
Pin 06: RS232 RX
Pin 07: RS232 GND
Pin 08: NC

5507-1508 Face view

Note:
Versions from 2017 and older have other pin-out. Contact us for further information.

Ordering Codes

ESPS3000 - ☐ - ☐ - ☐

Pressure Range:

0 to 100 bar	05
0 to 250 bar	10
0 to 400 bar	20
0 to 600 bar	30
0 to 1000 bar [1]	40
0 to 1600 bar [1]	45
0 to 2200 bar [1]	50

Pressure Connection:

GB04	G 1/4" BSP FM
AC04	1/4" MP FM

Output Signal:

1	4-20mA
2	RS232 / Can-BUS

[1] *Only available with AC04 Pressure Connection*

Accessories

- Pigtail Cable G5501-15-08-0004 (4 Feet long)
- EVX Mini Compensator 30ml 1"BSP
- EVX Mini Compensator adapter 1"-1/4" BSP

Part Number: 112345
Part Number: 101905
Part Number: 102933

Included Documentation

- Sensor Test Report
- DoC (Declaration of Confirmity)
- Technical Datasheet

Optional Documentation

- Calibration Certificate
- Other required tests and documentation
- Optional documentation only delivered on request.

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