



POD transmitters Series J310

Jaguar Instruments POD sensors are designed specifically for the rigors of Sub Sea Applications. These units are completely sealed against the egress of water or silicone oil. They are also specially designed to withstand external pressures of water depths of up to 12,000 feet of seawater.

These sensors are unique in that they are evacuated and back-filled with a special epoxy capable of withstanding the external pressures of Sub Sea service. This gives two layers of protection. The outer shell is of stainless steel and the inner core is an epoxy with a 15,000 psi compressive strength.

This combination eliminates any possibility of moisture condensing on the circuits or of vibration damaging an electronic component.

The transmitters are available with a ¼" SAE o-ring connection or a flanged two bolt face seal.

The standard electrical connection is a two wire flying lead which is sealed at the transmitter end. Glass to metal seals are available



Shown with Special Penetrator

Specifications (20°C)

Measurement range :
from 0 ... 600 PSI to 0 ... 15,000 PSI

Output signal :
E313 : 4 - 20 mA
E314 : 1 - 5 Vdc

Supply voltage :
E313 - E314 : 11 to 30 Vdc
E316 : 8 to 40 Vdc
Option : *high voltage: up to 48 Vdc*
low voltage: 8 to 28 Vdc (E313, E314)

Insulation :
> 1 GΩ at 50 Vdc. *Option: 250 Vdc.*

Maximum input current :
E312 / E314 : 6 mA
E316 : < 25 mA

Load impedance (+ M / - M) :
E314 : ≥ 1 kΩ
E313, E316 : see diagrams overleaf

Electromagnetic compatibility :
• **Standards EN50082-1 and -2 (immunity)**
• **Standards EN50081-1 and -2 (emission: a factor of 100 below the permitted maximum)**
with screened cable, screen connected at both ends

Global error (linearity, hysteresis and repeatability) :
Typically ± 0.25% of F.S. by reference to best straight line fit

Operating temperature :

- **Ambient (Ta)**:
Standard **E310** : - 25 to + 85°C
Option E310 : *low T*: - 40 to + 85°C / *high T*: - 25 to + 100°C

- **Fluid** : - 25 to + 100°C (Ta ≤ 50°C)

Storage temperature :
- 40°C to + 85°C

Compensated temperature range (zero and sensitivity) :
Standard : - 10 to + 55°C. *Option* : - 10 to + 70°C

Zero thermal drift :
±0.025% F.S./°C max. (except P ≤ 15 psi: ±0.04% F.S./°C)
Option: ±0.015% F.S./°C max. (except P < 1 bar: ±0.025% F.S./°C)

Span thermal drift :
Typically ± 0.01%/°C
Max.: ± 0.015%/°C

Wetted parts :
17-4PH & 17-5PH (option: Hast C-22)

Standard connections :
• **Electrical** : 22 ga Teflon flying leads- 1 meter
• **Pressure** : 1/4 SAE or 2-bolt flange
Many options available

Hyperbaric rating (EN 60529) :
Qualified to 12,000 feet of sea water

Typical response time :
≤ 3 ms

Vibration resistance (IEC 68-2-6) :
1.5 mm (10-55 Hz), 20 g (55 Hz to 2 kHz)

Shock resistance (IEC 68-2-32) :
25 falls from 1 m on concrete floor

Dimensions: Inches

