



# POD transmitters Series E310

Custom Components 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 10,000 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 1/4" 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

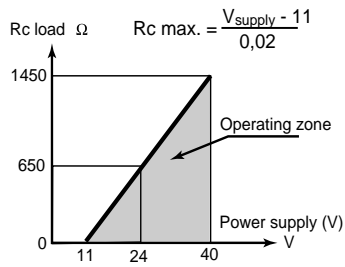
### Vibration resistance (IEC 68-2-6) :

1.5 mm (10-55 Hz), 20 g (55 Hz to 2 kHz)

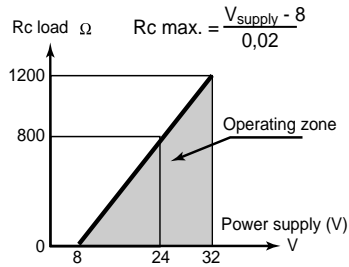
### Shock resistance (IEC 68-2-32) :

25 falls from 1 m on concrete floor

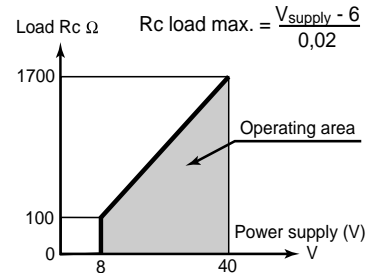
# Load diagrams



**4-20 mA standard**

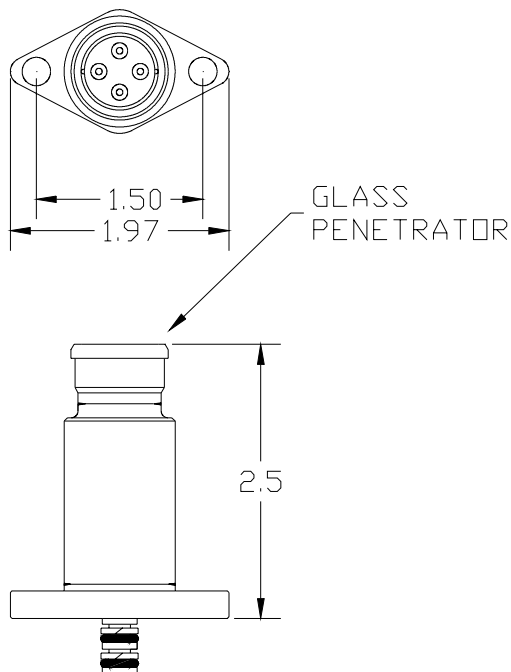
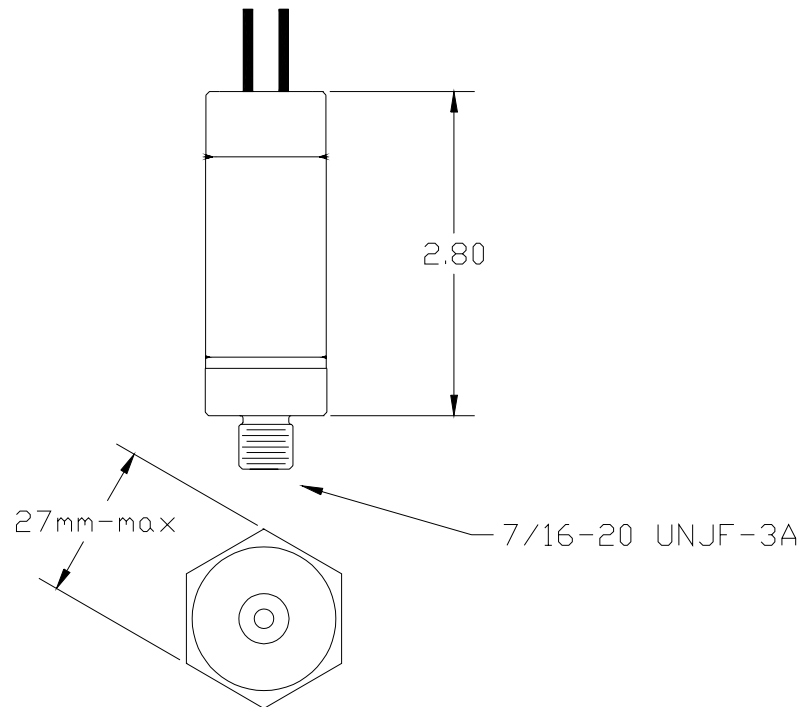


**4-20 mA low voltage**



**0-20 mA version**

# Dimensions: Inches



# Electrical Schematic

