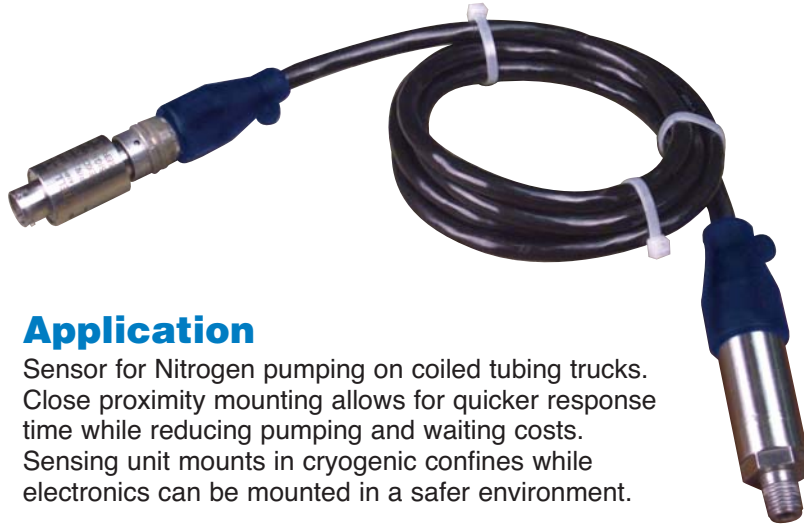


# Nitrogen Pumping Sensor

4-20 mA Pressure Transmitters for Cryogenic Applications

Nitrogen Pumping



## Application

Sensor for Nitrogen pumping on coiled tubing trucks. Close proximity mounting allows for quicker response time while reducing pumping and waiting costs. Sensing unit mounts in cryogenic confines while electronics can be mounted in a safer environment.

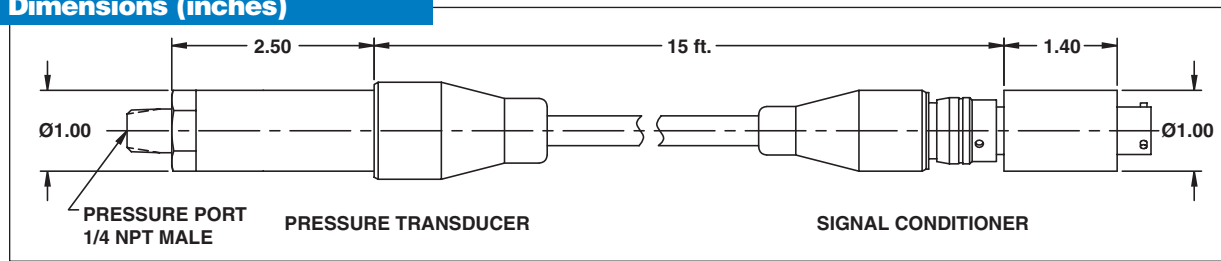
## Standard Features

- 4-20 mA Signal
- -320°F to +250°F Operation
- Molded Cable
- Noise Immunity
- Pressure to 30K
- Stainless Steel Construction
- Hermetically Sealed
- $\pm 0.25$  Accuracy
- 15 Ft. Cable
- RFI/EMI Protected

# Nitrogen Pumping Sensor Specifications

Baseline Configuration Specs Represented.  
Modifications Encouraged - See Below  
Custom Designs Available

## Dimensions (inches)



## Performance

### Static Accuracy

± 0.25% FSO by BFSL.

### Thermal Error

< ± 0.010% FSO/°F typical.

### Zero Balance

± 1% FSO at 70°F.

### Span

± 1% FSO at 70°F.

### Frequency Response

Consult Factory.

## Mechanical Characteristics

### Standard Ranges

0 - 200, 500, 750, 1000, 1500, 2000,  
3000, 5000, 7500, 10000, 15000,  
20000, 25000 and 30000 PSIG.

### Proof Pressure

1.5 times FSO range minimum.

### Burst Pressure

2.0 times FSO range minimum  
or maximum rating of hammer union.

### Operating Media

Fluids and gases compatible with stainless  
steel. Inconel and other materials optional.

### Enclosure

Completely welded.

### Pressure Fitting

1/4" NPT Male (std.) or Female.  
7/16"-20 per MS33649-4 (Female).  
7/16"-20 per MS33656-4 (Male).  
AE F250-C, 9/16-18 UNF for  
ranges 15,000 PSI & up.

### Weight

Sensor Only: Approximately 8 ounces.

## Electrical Characteristics

### ANALOG OUTPUTS

#### Excitation

Current Loop:

9-36 Vdc unregulated.

Isolated Voltage Output:

8-18 Vdc or 22-35 Vdc unregulated.

Non-Isolated Voltage Output (std.):

8-40 Vdc unregulated.

3 (std.) or 4 wire available.

### DIGITAL OUTPUTS

#### Excitation

RS-232, RS-485, CANbus.

8-30 Vdc unregulated.

### COMMON

#### Electrical Connection

Stainless steel to mate with a  
PT1H-10-6P (MS3116-10-6S).

#### Electrical Protection

- EMI/RFI protected.
- Surge protection to 500 Vdc.
- Reverse polarity protected.
- Short circuit protected.

#### Insulation Resistance

Greater than 100 megohms at  
50 Vdc at 70°F.

## Environmental Characteristics

### Compensated Temperature Range

-320°F to +140°F.

Options available.

### Operating Temperature Range

-320°F to +250°F.

## MODEL IDENTIFICATION

S	T	1	5	X	X
SERIES		ANALOG OUTPUT		DIGITAL OUTPUT	
		0 = Volts		0 = None	
		5 = Loop		1 = RS-485	
		1 = None		2 = RS-232	
				3 = PDA	
				4 = CANbus	

## Certification / Rating

### Hazardous Location Certification

Applies to current loop products only.

#### ATEX CERTIFIED MODELS:

GT2450 Intrinsically Safe II 1 G EEx ia IIC T5

EMC Directive 89/336/EEC

European Pressure Equipment Directive 97/23/EC

#### CANADIAN STANDARDS

#### ASSOCIATION/UL CERTIFIED MODELS:

GT2250 Intrinsically Safe Class I, Div1, Groups ABCD  
Non-Incendive Class I, Div2, Groups ABCD



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MODIFICATIONS: We realize transducer applications vary greatly and as such our designs are flexible. Choice of pressure port, electrical termination, material compatibility and performance characteristics are a few of the many options available. Specifications on this datasheet represent the standard configuration only. Product and company names listed are trademarks of their respective companies. Specifications subject to change without notice.

WARRANTY: Stellar Technology warrants that its product shall be free from defective workmanship and/or material for a twelve month period from the date of shipment, provided that Stellar Technology's obligation hereunder shall be limited to correcting any defective material FOB our factory. No allowance will be made for any expenses incurred for correcting any defective workmanship and/or material without written consent by Stellar Technology. This warranty is in lieu of all other warranties expressed or implied.

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