

# AST47HP High Pressure

## Stainless Steel Media Isolated Pressure Sensor



### Overview

With the increasing emphasis on vehicle efficiency, diesel fuel rail systems are being re-designed to run at higher pressures. American Sensor Technologies (AST) has been able to meet new requirements of engine manufacturers by supplying pressure transducers with pressure ratings up to 60,000 PSIG (4000 BAR) with the AST47HP High Pressure Package.

### Benefits

- ✓ One Piece Stainless Steel Construction
- ✓ Krystal Bond™ Technology is free of welds, silicon oil, and internal o-rings
- ✓ 100V/m of EMI/RFI Protection against electrical noise including ignition systems
- ✓ Various automotive /military connectors and custom cable lengths available for ease of installation
  - Mini-DIN 43650 C
  - Bendix (PT02-10-6P)
  - Standard Cable lengths of 2, 4, 6, and 10ft.



### Applications

- ✓ Water Jets
- ✓ Test Stands
- ✓ High Pressure Wells
- ✓ Injection Molding Equipment
- ✓ Water Tanks
- ✓ Pipeline Instrumentation
- ✓ Hydraulics Systems
- ✓ Pumps

### Environmental Data

Temperature	
Operating	-40 to 85°C (-40 to 185°F)
Storage	-40 to 125°C (-40 to 250°F)
Thermal Limits	
Compensated Range	0 to 55°C (30 to 130°F)
TC Zero	<±1.5% of FS
TC Span	<±1.5% of FS
Other	
Shock	100G, 11 msec, 1/2 sine
Vibration	20G peak, 20 to 2400 Hz.
EMI/RFI Protection:	Yes
Rating:	IP-68

### Performance @ 25°C (77°F)

Accuracy*	< ± 0.25% BFSL (± 0.1% Optional)
Stability (1 year)	±0.5% FS, typical
Pressure Cycles	> 100 Million
* Accuracy includes non-linearity, hysteresis & non-repeatability	
* All orders over 10K PSI must consult factory	

### Electrical Data

Output	4-20mA	Voltage (3 or 4 Wire)	0-50mV (10mV/V)
Excitation	10-28VDC	10-28VDC	5VDC
Output Impedance	>10k Ohms	<100 Ohms, Nominal	1100 Ohms, Nominal
Current Consumption:	20mA, typical	<10mA	<5mA
Bandwidth	(-3dB): DC to 250 Hz	(-3dB): DC to 1kHz	(-3dB): DC to 5kHz, min
Output Noise:	-	<2mV RMS	-
Zero Offset:	<±1% of FS	<±1% of FS	<±2% of FS
Span Tolerance:	<±2% of FS	<±1.5% of FS	<±2% of FS
Output Load:	0-800 Ohms@10-28VDC	10k Ohms, min	>1M Ohms
Reverse Polarity Protection	Yes	Yes	-

## Ordering Information

**AST47HP W 30000 P 4 R 0 000**

**Series Type**

**Configuration Interface**

W= F250C Female Autoclave  
 X= 9/16-18 UNF Male with 37° flare  
 X= M16\* 1.5 Female with sealing cone

**Pressure Range**

Insert 5 digit pressure range

**Pressure Unit**

B= Bar • K= kg/cm<sup>2</sup> • P= PSI

**Outputs**

2= 0-5V (3 wire)    3= 1-5VDC  
 4= 4-20mA            5= 0-10V (3 wire)

**Electrical\***

A= 2 ft. (0.6m)    E= Mini DIN 43650  
 B= 4 ft. (1.2m)    I= DIN 43650A  
 C= 6 ft. (1.8m)    R= Bendix 6 pin (PT02-10-6P)  
 D= 10 ft. (3m)

**Wetted Material**

0= 17-4PH

**Options**

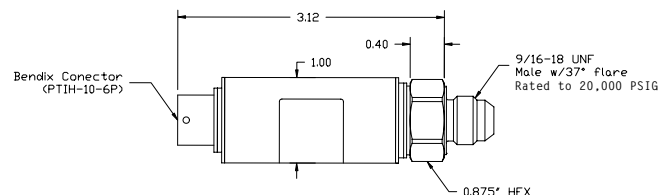
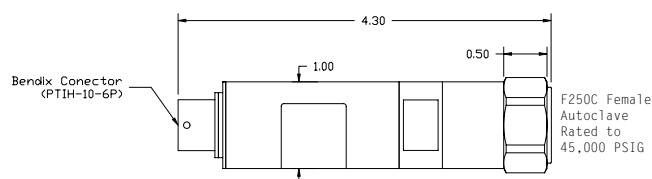
000= No special options  
 123= M16\*1.5 Female with sealing cone  
 153= 9/16-18 UNF Male with 37° flare

**High Pressure Fittings Include:**

<b>9/16-18 UNF Male with 37° Flare</b>	10,000-20,000 PSI (700-1400 BAR)
<b>F250C Female Autoclave</b>	10,000-45,000 PSI (700-3,000 BAR)
<b>M16*1.5 Female with Sealing Cone</b>	10,000-60,000 PSI (700-4000 BAR)

\*Wiring information available at: <http://www.astensors.com/mediacenter.php>

## Dimensional Data



## Warranty

**Workmanship** - AST, Inc. pressure transmitters have a limited one-year warranty to the original purchaser. AST, Inc. will replace or repair, free of charge, any defective transmitter. This warranty does not apply to any units that have been modified; misused, neglected or installed where the application exceeds published ratings. AST's sensors are made with pride in New Jersey, USA. If in the area please feel free to stop by for a visit!

**Installation/Applications** - The purchaser is responsible for media compatibility, functional adequacy, and correct installation of the transmitter.