

# AST4100 Capteur miniature de pression relatif

## AST4100 *Compact* Stainless Steel Media Isolated Pressure Sensor

### OVERVIEW

American Sensor Technologies, presents the AST4100 as a compact, price-competitive stainless steel pressure sensor. Compatible with a wide range of liquids and gases over pressure ranges up to 10,000 PSI, the AST4100 covers a diversified variety of applications. AST4100 sensors are available with outputs of 10mV/V, as well as high level outputs that utilize AST's proprietary Krystal Bond Technology.

### BENEFITS

- ◆ High Strength Stainless Steel Construction
- ◆ No Oil, Welds or Internal O-rings (one piece sensing element)
- ◆ Wide Operating Temperature Range
- ◆ Ranges up to 10,000 PSI
- ◆ Low Static and Thermal Errors
- ◆ Price / Performance Deliver Value
- ◆ Compatible with Wide Range of Liquids and Gases
- ◆ UL/cUL 508 Approved

### APPLICATIONS

- ◆ Test Equipment
- ◆ HVAC/R Equipment
- ◆ Control Panels
- ◆ Pneumatics
- ◆ Hydraulic Systems
- ◆ Hydrogen Storage (316L SS)
- ◆ Data Loggers

### Performance @25°C (77°F)

Accuracy*	< ±0.5% BFSL
Stability (1 year)	±0.25%FS, typ
Over range Protection	2X Rated Pressure
Burst Pressure	5X or 20,000 psi (whichever is less)
Pressure Cycles	> 100 Million

\* Accuracy includes non-linearity, hysteresis & non-repeatability



### Environmental Data

#### Temperature

Operating	-40 to 85°C (-40 to 185°F)
Storage	-40 to 100°C (-40 to 212°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	10G peak, 20 to 2000 Hz.
EMI/RFI Protection:	No
Rating:	IP-65

### Electrical Data

Output	4-20mA	1-5VDC, 1-6VDC	0-50mV	0.5-4.5V Ratiometric
Excitation	10-28VDC	10-28VDC	5VDC, typ	5VDC, reg
Output Impedance	>10k Ohms	<100 Ohms, Nominal	1100 Ohms, Nominal	<100 Ohms, Nominal
Current Consumption:	20mA, typ.	<10mA	<5mA	<10mA
Bandwidth	(-3dB): DC to 250 Hz	(-3dB): DC to 1kHz	(-3dB): DC to 5kHz, min	(-3dB): DC to 1kHz
Output Noise:	-	<2mV RMS	-	<2mV RMS
Zero Offset:	<±1% of FS	<±1% of FS	< ±2% of FS	<±1% of FS
Span Tolerance:	<±2% of FS	<±1.5% of FS	< ±2% of FS	<±1.5% of FS
Output Load:	0-800 Ohms@10-28VDC	10k Ohms, Min.	>1M Ohms	10K Ohms, Min.
Reverse Polarity Protection	Yes	Yes	-	No

## Ordering Information

**AST4100 A 00500 P 4 A 0 000**

**Series Type**

**Process Connection**  
 A=1/4" NPT Male  
 B=1/8" NPT Male  
 C=1/4" BSPP Male  
 F=7/16" - 20 UNF Male

**Pressure Range**  
 Insert pressure range from chart

**Pressure Unit**  
 B= Bar  
 K= kg/cm2  
 P= PSI

**Outputs**  
 1= 0.5-4.5V ratiometric                      6= 1-6V  
 3= 1-5V    A= 10mV/V  
 4= 4-20mA (2 wire loop powered)

**Electrical**  
 A=2Ft.(0.6m) } AST's standard  
 B=4Ft.(1.2m) } cable is 24AWG  
 C=6Ft.(1.8m)  
 D=10Ft.(3.0m)

**Wetted Material**  
 0=17-4PH  
 1=316 L

**Options**  
 000=No special factory options

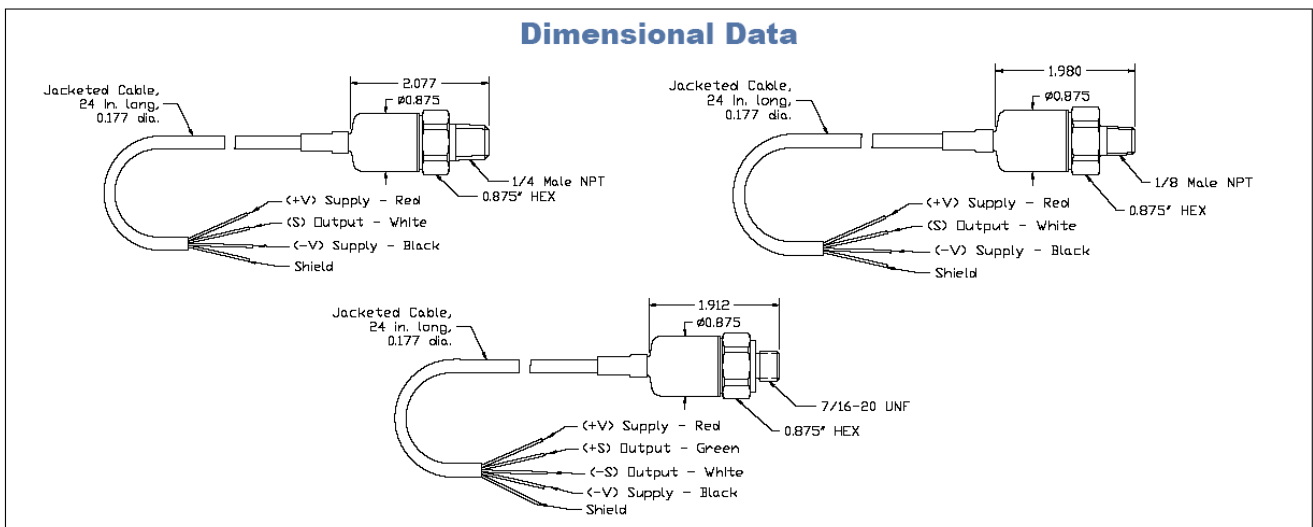
### Pressure Ranges\*

PSIG Measurement Range	Pressure Range Code	BARG Measurement Range	Pressure Range Code
-14.7 to 25**	V0025**	-1 to 2**	V0002**
0-25	00025	0-2	00002
0-50	00050	0-5	00005
0-100	00100	0-7	00007
0-150	00150	0-10	00010
0-200	00200	0-20	00020
0-250	00250	0-35	00035
0-500	00500	0-50	00050
0-1,000	01000	0-70	00070
0-2,500	02500	0-100	00100
0-5,000	05000	0-250	00250
0-7,500	07500	0-350	00350
0-10,000	10000	0-500	00500
		0-700	00700

\*Typical ranges. All ranges between 0-25 psi and 0-10,000 psi available.  
 \*\*Compound ranges up to -14.7 to 2500 psi available. Please consult factory.

[www.astensors.com](http://www.astensors.com)

### 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.

**Installation/Applications** - The purchaser is responsible for media compatibility, functional adequacy, and correct installation of the transmitter. AST's sensors are made with pride in New Jersey, USA. If in the area please feel free to stop by for a visit!