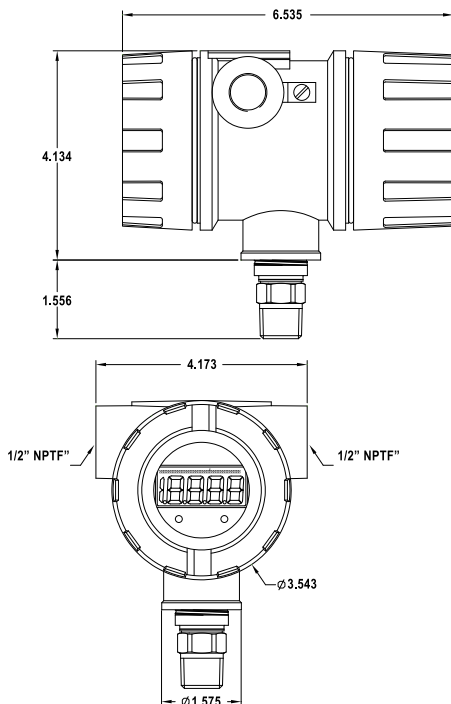




# Operating Instructions

## AST46DS Explosion-Proof Pressure Transducer / Transmitter with Display For Use with Liquids and Gases

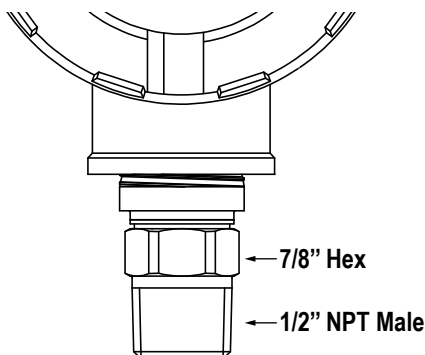


- Class I, Div. 1, Groups A, B, C, D T5
- Class II, Div. 1, Groups E, F, G; Class III\*
- Ambient Temp: -40 to 85°C (-40 to 185°F)
- Process Temperature: -40 to 125°C (-40 to 257°F)
- Conduit seal is required within 18 inches for Group A installations.
- Seal not required for Group B, C & D Installations.
- Single Seal
- CSA 2013 2561438
- \*Gauge and vacuum reference units not suitable for Class II. Refer to datasheet.



## PROCESS CONNECTION INSTALLATION

The standard process connection for the AST46DS is  $\frac{1}{2}$ " NPT male. Use the  $\frac{7}{8}$ " hex above the thread of the process connection to install into the process. Do not use the body / housing for installation.



## ELECTRICAL INSTALLATION

### **WARNING:** EXPLOSION HAZARD

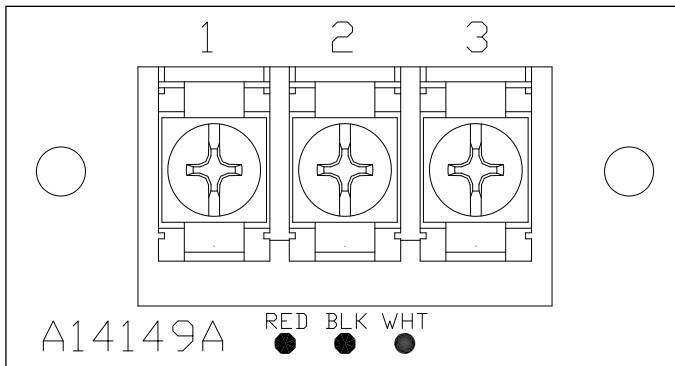
Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous. This equipment must be powered by a Non-hazardous live source in accordance with CAN/CSA-C22.2 No. 61010-1-04 eg. limited energy source, or a Class 2 Source.

Please review the following wiring instructions. *For U.S. installations, product case ground screw on the interior or exterior of the housing must be bonded to ground according to Article 501 & 505 of the NEC.*

### **Recommended Wire Gauge: 18-22 AWG**

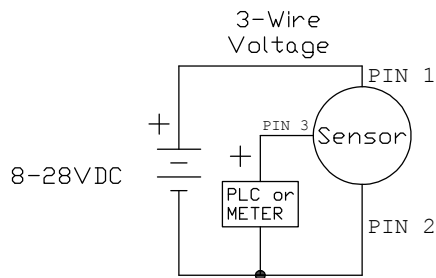
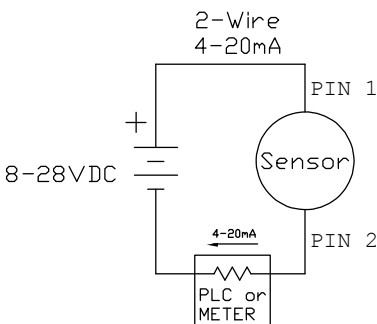
- Remove rear cover by hand to access terminal blocks.
- Run wire through either conduit connection and feed toward the terminal blocks. Conduit should be installed over wire / cable per electrical code requirements.
- Use a Philips Head screw driver to loosen terminal screws.
- Connect wires to the proper terminal according to chart and tighten screw.
- Install conduit plug if one side of electrical connection is unused.
- Close Cover.

## TERMINAL BLOCK OUTLINE



## WIRING INFORMATION

Output Type	Pin 1	Pin 2	Pin 3	Electrical Power Requirement
1-5V	+V	Ground	Signal Output	8-28VDC
4-20mA	+Signal	- Signal	Not Connected	8-28VDC



## FIELD SERVICE

The AST46DS has no field serviceable parts. For technical issues or questions, please contact the factory: [info@astsensors.com](mailto:info@astsensors.com)

## ZERO ADJUSTMENT:

- The Zero button will adjust the output signal and display to the base reading range.
- **Ensure the product is in a non-hazardous environment.**
- Remove the front display cover by hand to access the "Zero" button.
- Connect the AST46DS using standard wiring instructions with an 8-28VDC power supply.
- Do not remove power from the product during the Zero adjustment process. If "**CHECKBYTE ERROR**" displays, contact factory
- Make sure that the process connection is not pressurized and is open to atmosphere to reset to 0 PSIG. If the zero pressure is adjusted with pressure, it can be calibrated up to 5% of the full span (i.e. 5 PSI for a 100 PSI transmitter). "Zero adjustments above or below 5% will result in an **"OUT OF RANGE"** condition displayed on the LCD.
- Press and hold the "Zero" button until the display reads **"ZERO"**. The AST46DS will then read 0.0 for pressure units if the calibration was started in units, 1.000 for a 1-5V output, or 4.00 for a 4-20mA output. (compound and bi-directional transmitters will "zero" to the factory calibrated zero offset).
- Re-install the front display cover.



## UNITS

- **Ensure the product is in a non-hazardous environment.**
- Remove the front display cover to access the "Units" button.
- Connect the AST46DS using standard wiring instructions with an 8-28VDC power supply.
- Press the Units" button to cycle between the display options until you reach the desired units.
- Re-install the front display cover.



## OVER PRESSURE DISPLAY

At 5% over-pressure, the display will begin to blink at 1/2Hz.

## REMOVING POWER

If you power off AST46DS, it will default back to the last setting for the display and zero calibration.



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AST46DS Operating Instructions, 5/6/13

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