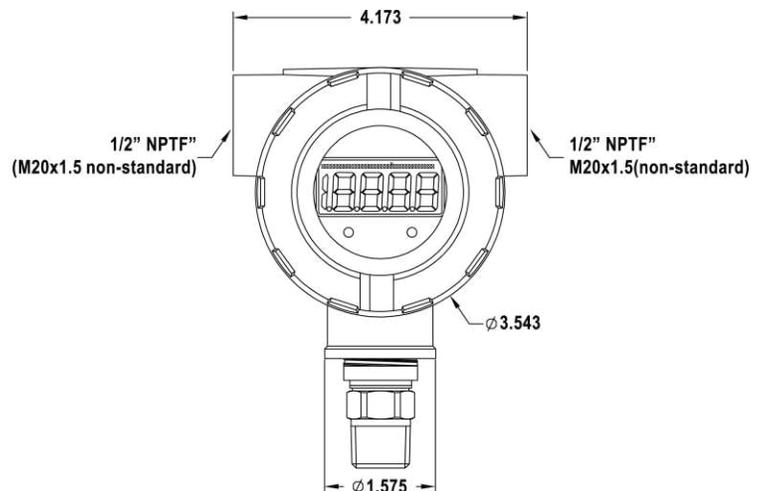
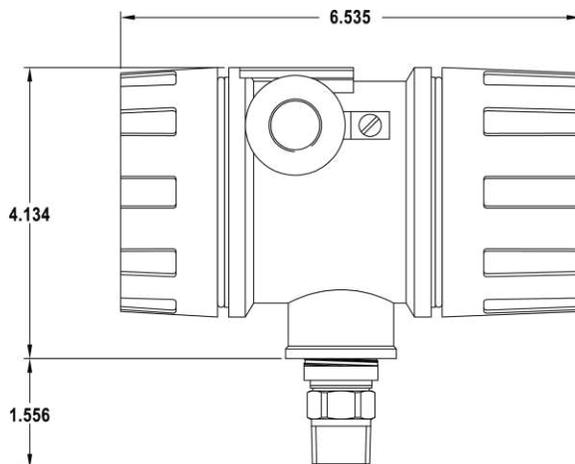


# OPERATING INSTRUCTIONS

## AST46DS Explosionproof Pressure Transducers / Transmitters 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 Temp: -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 C22.2 No. 30-M1986
- CAN/CSA-C22.2 No. 61010-1
- CAN/CSA-C22.2 No. 60079-0
- CAN/CSA-C22.2 No. 60079-1
- ISA S82.02.01
- ANSI/ISA 60079-0
- ANSI/ISA 60079-1
- ANSI/ISA 12.27.01
- EN 60079-0
- EN 60079-1
- IEC 60079-0
- IEC 60079-1



\*Gauge and vacuum reference units not suitable for Class II. Refer to data sheet.

### WARNING & IMPORTANT SAFETY INSTRUCTIONS

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



**DANGER** indicates a hazardous situation which, if not avoided, will result in death or serious injury.



**WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury.



**CAUTION** used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



### ELECTRICAL INSTALLATION

#### **WARNING** EXPLOSION HAZARD

Do not install, repair or uninstall equipment unless power has been switched off and the area is known to be non-hazardous. This equipment must be powered by a Nonhazardous 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 conduit connection and feed toward 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.
- Ensure either the internal or external case ground screw is bonded to ground according to Article 501 & 505 of the NEC.
- Install conduit plug if one side of electrical connection is unused.
- Close cover

#### Field Service

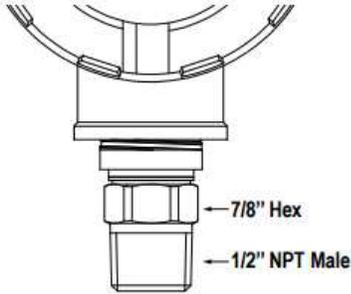
The AST46DS has no field serviceable parts. For technical issues or questions, please contact the factory: (973) 448-1901.

# OPERATING INSTRUCTIONS

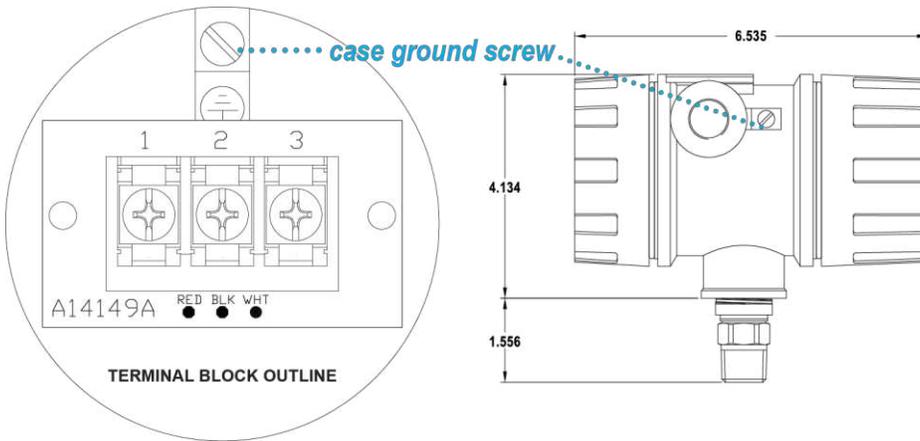
AST46DS

## Process Connection Installation

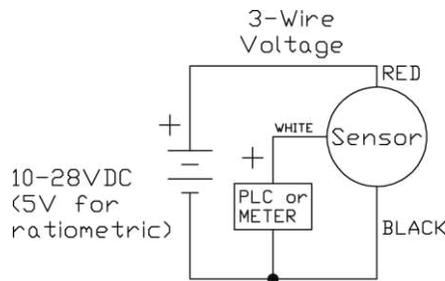
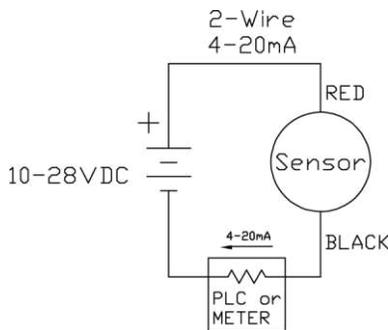
The standard process connection for the AST46DS is 1/2" NPT male. Use the 7/8" hex above the thread of the process connection to install into the process. Do not use the body / housing for installation.



## Wiring



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



## OPERATING INSTRUCTIONS

AST46DS

### 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 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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