

OPERATING INSTRUCTIONS

AST54ED Explosionproof & AST54EN Non-Sparking Pressure Transducers / Transmitters for Use with Liquids and Gases

EN 60079-0:2018, EN 60079-1:2014 (AST54ED), EN 60079-7:2015 (AST54EN),
IEC 60079-31:2014, IEC 60079-0:2017, IEC 60079-1:2014, IEC 60079-7:2015 &
IEC 60079-31:2013

AST54ED Explosionproof



- Sira 15ATEX1097X
 - Ex db IIC T5 Gb
 - Ex tb IIIC 100°C Db
- IECEx CSA 15.0007X
- Class 1, Zone 1, AEx d IIC T5 Gb
- Class I, Div 1, Groups A,B,C,D Explosionproof
- Class II, Div 1, Groups E,F,G; Class III, Div 1
- Ambient Temp: -40 to 85°C (-40 to 185°F)
- Process Temp: -40 to 125°C (-40 to 257°F)
- Factory Sealed

AST54EN Non-Sparking



- Sira 15ATEX4098X
 - Ex ec IIC T5 Gc
 - Ex tc IIIC 100°C Dc
- IECEx CSA 15.0007X
- Class I, Zone 2, AEx nA IIC T5 Gc
- Class I, Div 2, Groups A,B,C,D Non-Sparking
- Ambient Temp: -40 to 85°C (-40 to 185°F)
- Process Temp: -40 to 125°C (-40 to 257°F)
- Single Seal
- Factory Sealed



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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 (Raccordement électrique)

⚠️ 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 non-hazardous live source in accordance with CAN/CSA-C22.2 No. 61010-1-04 e.g. limited energy source, or a Class 2 Source.

(AVERTISSEMENT) Risque d'explosion

Déconnecter l'appareil uniquement après avoir coupé l'alimentation électrique ou avoir vérifié qu'il n'est pas installé en zone dangereuse. Cet équipement doit être alimenté par une source directe non dangereuse conformément aux normes CAN/CSA-C22.2 No. 61010-1-04 par exemple en source d'énergie limitée ou en source Classe 2.

⚠️ WARNING EXPLOSION HAZARD: Substitution of components may impair suitability for Class I Div 2

(AVERTISSEMENT) Risque d'explosion - Remplacement d'un composant peut empêcher la conformité de Classe I, Division 2.

⚠️ WARNING The enclosure is manufactured from light metal. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation, particularly if the equipment is installed in a zone 0 location.

(AVERTISSEMENT) Le boîtier est fabriqué en métal léger. Dans de rares cas, des sources d'inflammation due à des étincelles d'impact et de friction pourraient survenir. Ceci doit être considéré lors de l'installation, en particulier si le matériel est installé dans un emplacement 0 de la zone.

⚠️ WARNING Potential Electrostatic Discharge Hazard - clean the surface with a damp cloth.

(AVERTISSEMENT) Décharge potentiel électrostatique Hazard - nettoyer la surface avec un chiffon humide.

NOTE: Sensor case must be bonded to ground/earth according to Section 18 of the Canadian Electric Code, Part 1, and/or Articles 501 and 505 of the National Electric Code (US) during installation.

Field Service

The AST54ED & AST54EN have no field serviceable parts. For technical issues or questions, please contact the factory.

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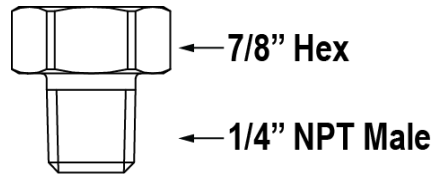
Special Conditions for Safe Use

- i. The product label indicates that the process temperature range is -40°C to $+125^{\circ}\text{C}$. Taking this into account, the user/installer shall take precautions that ensure the operating service temperature of the overall Pressure Transducer assembly is between -40°C to $+92^{\circ}\text{C}$.
- ii. Under certain extreme circumstances, exposed plastic and unearthed metal parts of the enclosure may store an ignition-capable level of electrostatic charge. Therefore, the user/installer shall implement precautions to prevent the buildup of electrostatic charge, e.g. locate the equipment where a charge generating mechanism (such as wind-blown dust) is unlikely to be present and clean with a damp cloth.
- iii. The integral conductors shall be mechanically protected and terminated in a certified terminal or junction facility.
- iv. It is the user's responsibility to ensure that the earth continuity of the equipment is maintained via the mounting arrangement.
- v. This product is manufactured from light metal and in rare cases, potential ignition sources or sparks may result due to impact or friction, User is recommended to use caution during installation.

Process Connection Installation

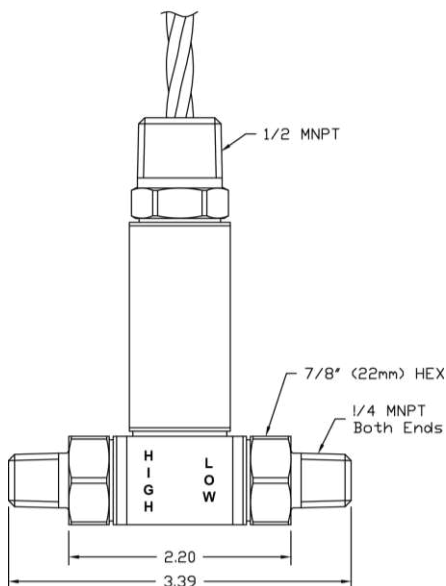
For threaded installations, use the 7/8" hex above the thread of the process connection to install the process. Do not use the body / housing for installation.

Maximum working pressure for the lowest pressure sensors 0.34MPa (50 psi) and maximum working pressure for the highest pressure sensors 137.9MPa (20,000 PSI) -- SINGLE SEAL.

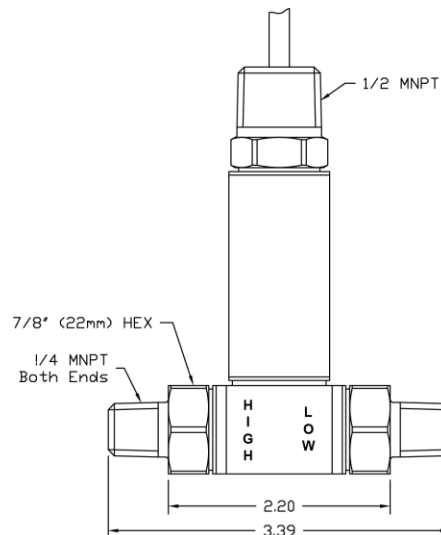


Outlines & Wiring

Explosionproof Metal Conduit & Wire Leads (AST54ED)



Non-Sparking Metal Conduit & Cable (AST54EN)



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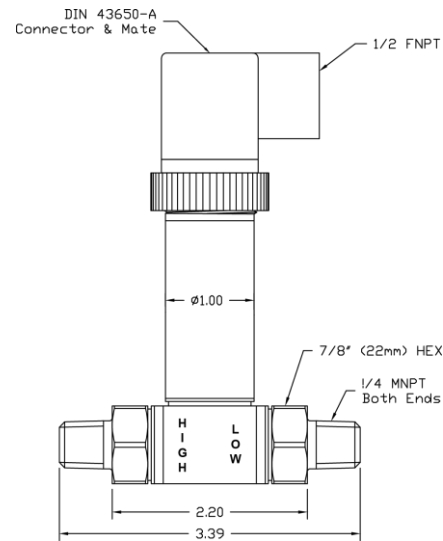
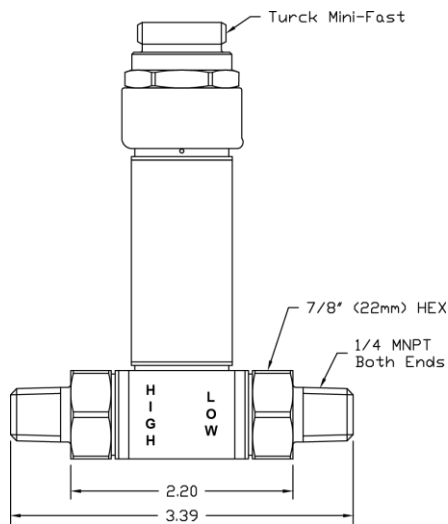
Minifast™

Output	Red	Black	White	Green
Voltage	+V Supply	-V Supply	Output	Case Ground
4-20mA	+V Supply	-V Supply	Not Used	Case Ground

DIN43650A

Red	Black	White	Green
+V Supply	GND	Output	Case Ground
+V Supply	-V Supply	Not Used	Case Ground

For U.S. installations, sensor case ground (green wire) must be bonded to ground according to Article 501 & 505 of the NEC.



Minifast™ is a trademark of Turck, Inc.

Output	Pin 1	Pin 2	Pin 3	Pin 4
Voltage	-V	S	+V	Case
4-20mA	-V	N/C	+V	Case

Pin 1	Pin 2	Pin 3	Pin 4
+V	GND	S	Case
+V	GND	Case	N/C

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Rev 00
 06.30.2016