

# OPERATING INSTRUCTIONS

## Non-Incendive Pressure Transmitters for use with Liquids and Gases

AST4300 • AST43LP

### End of model # features “-SS” or “-Z”

- Ambient Temperature: -40 to +80°C
- Process Temperature: -40° to 125°C
- IP66

### CERTIFICATE NUMBERS:

- US, Canada: CSA08CA2018368
- ATEX: Sira 14ATEX4112X
- IECEx: IECEx CSA 14.0061X
- UKCA: CSAE 21UKEX3190X

### APPLICABLE REQUIREMENTS:

- C22.2 No. 142-M1987 (Reaffirmed 2009)
- CSA C22.2 No. 213-M1987 (Reaffirmed 2013)
- ANSI/UL 508-2013 Seventeenth Edition
- ANSI/ISA-12.12.01-2007
- ANSI/ISA 12.27.01-2003
- ANSI/ISA-60079-0 (12.00.01)-2009 (R2013)
- ANSI/UL 60079-7-2017 (R2021) Fifth Edition
- CAN/CSA-C22.2 No. 60079-0:11 (December 2011)
- CAN/CSA C22.2 No. 60079-7:16
- IEC 60079-0:2017
- EN IEC 60079-7:2015/A1:2018
- IEC 60079-7:2017
- EN 60079-7:2015

### LOCATIONS AND PROTECTION METHODS:

#### Electrical options L, M, N, P only (Metal Conduit fitting):



- Ex ec IIC T4 Gc
- Class I, Div. 2, Groups A, B, C and D T4
- Class I Zone 2, AEx ec IIC T4 Gc

#### Electrical options I, 4 only (DIN43650A, Turck Mini-Fast):



- Class I, Div. 2, Groups A, B, C and D T4

### Blank option at the end of model #

- Ambient Temperature: -40 to +80°C
- IP66



File Number E210825

### APPLICABLE REQUIREMENTS:

- ANSI/ISA 12.12.01, 2013
- UL 60079-0 6th Edition
- UL 61010-1 3rd Edition
- CAN/CSA C22.2 No. 157-92, Rev 2003-06 Reaffirmed 2012
- CAN/CSA C22.2 No. 213-M1987 1st Ed. Reaffirmed 2013
- CAN/CSA C22.2 No. 60079-0:11
- CSA C22.2 No. 61010-1-12 Edition 3

### LOCATIONS AND PROTECTION METHODS:

#### Electrical options X, L, M, N, P, I

NI Class I, Div. 2, Groups A, B, C, or D



### 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** To prevent ignition of flammable or combustible atmospheres, disconnect power before servicing.

**(AVERTISSEMENT)** Pour éviter l'inflammation d'atmosphères inflammables ou combustibles, débrancher l'alimentation avant l'entretien.

**WARNING** Suitable for use in Class I, Division 2, Groups A, B, C and D Hazardous Locations, or Non-Hazardous locations only.

**(AVERTISSEMENT)** Uniquement adapté à un usage dans les Zones dangereuses de la classe 1, division 2 des groupes A, B, C, et D ainsi que dans les zones non dangereuses.

**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 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.

# OPERATING INSTRUCTIONS

Non-Incendive

## Specific Conditions of Use

- i. Models AST4300 and AST43LP Pressure Transducers are not earthed, and a charge-generating mechanism may be present when in contact with non-metallic charge generating materials, the device shall be grounded before use.
- ii. 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 2 location.
- iii. The product label indicates that the process temperature range is -40°C to +125°C. Taking this into account, the user/installer shall take the precautions that ensure the operating service temperature of the overall pressure transducer assembly is between -40°C to +92°C.

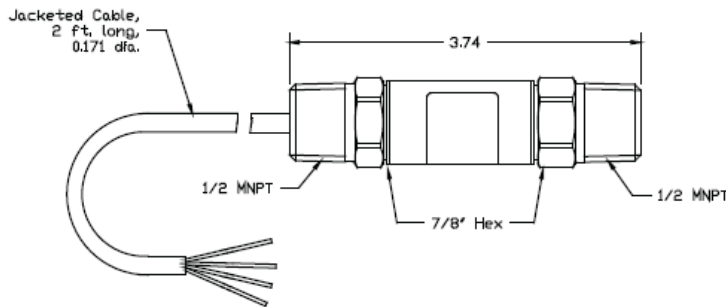
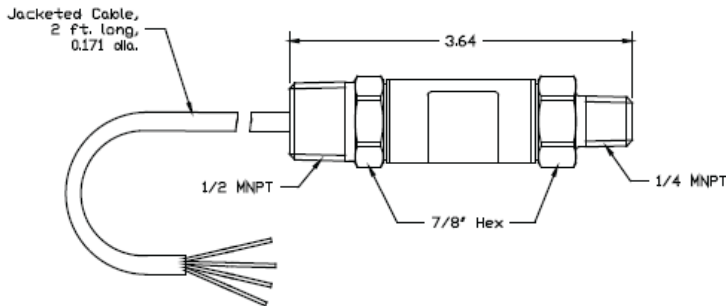
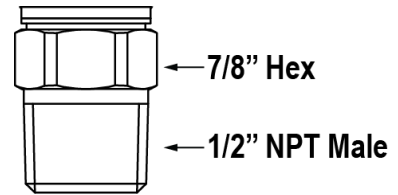
## Process Connection Installation

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.

The pressure sensor should be installed in a clean and compatible thread, with enough room to allow the use of an open-end wrench/spanner size 7/8" (22.22mm approximately).

Inspect for leaks.

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

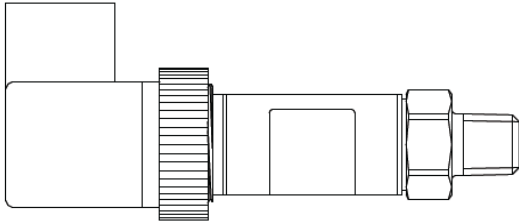
### AST4300 / AST43LP with Metal Conduit & Cable

Cable / Hookup Wire Connections	Conduit with Cable			
	Green	Black	Red	White
Output Type	Case	GND	+V	S
3 Wire Voltage	Case	-V	+V	N/C
4-20mA (2 wire loop powered)	Case	-V	+V	N/C

## OPERATING INSTRUCTIONS

Non-Incendive

### AST4300 / AST43LP with DIN43650A



Output Type	Pin 1	Pin 2	Pin 3	Wide Pin
3 Wire Voltage	+V	GND	S	Case
4-20mA (2 wire loop powered)	+V	GND	Case	N/C

### AST4300 / AST43LP with Minifast (CSA Only)



Option Code 3 Wire Voltage	Pin 1	Pin 2	Pin 3	Pin 4
000	-V	S	+V	Case
607/617	S	+V	Case	-V
Option Code 4-20mA	Pin 1	Pin 2	Pin 3	Pin 4
000	-V	N/C	+V	Case
615	-V	+V	N/C	Case
Option Code mV & 4-Wire Voltage	Pin 1	Pin 2	Pin 3	Pin 4
000	-V	+S	+V	-S

### MANUFACTURING PLANT

TE Sensores S de RL de CV, a TE Connectivity Company  
Av. Obrero Mundial #9, Parque Industrial Dynatech  
Hermosillo, Sonora, 83174 Mexico

[tesensors-ccamericas@te.com](mailto:tesensors-ccamericas@te.com)

### te.com/sensors

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