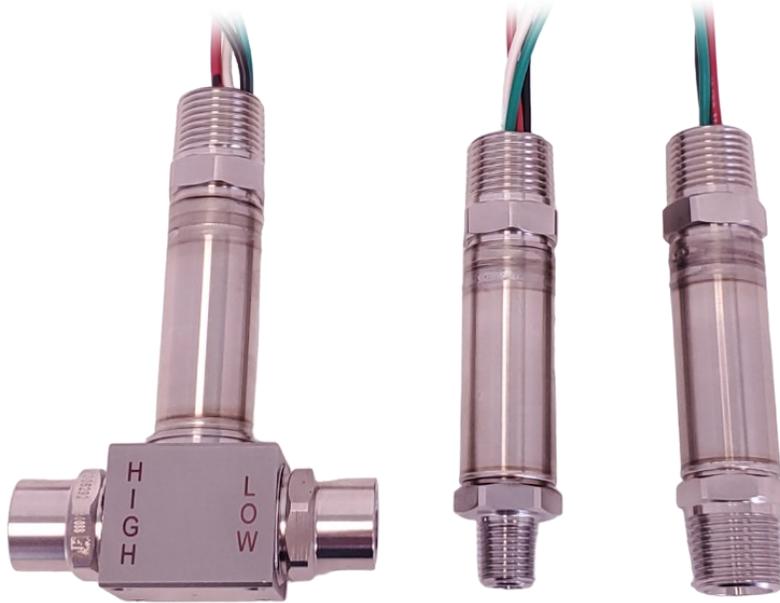


**CLASS I, DIVISION 1 ZONE 1 “Ex d” EXPLOSION/FLAME-PROOF PRESSURE TRANSDUCER
CS60 - CS64 - CS66 - CS68****APPLICABLE STANDARDS:**

CAN/CSA C22.2 No. 60079-0:19
CAN/CSA C22.2 No. 60079-1:16
CAN/CSA C22.2 No. 60079-31:15
CAN/CSA C22.2 No. 30:20
CAN/CSA C22.2 No. 25:17
CAN/CSA C22.2 No. 61010-1-12
ANSI/UL 1203 (2013) Fifth Edition, Revision April 2022
ANSI/UL 122701-2017, Third Edition
ANSI/UL 61010-1-2018, Third Edition
ANSI/UL 60079-0-2020, Seventh Edition
ANSI/UL 60079-1-2015, Seventh Edition
ANSI/UL 60079-31-2015, Second Edition

NORTH AMERICA MARKINGS

Ex db IIC T4 Gb
Class I Zone 1 AEx db IIC T4 Gb
Class I, Division 1, Groups A, B, C, D, T4

Ex tb IIIC T135°C Db
Zone 21 AEx tb IIIC T135°C Db
Class II, Division 1, Groups E, F, G, T135°C

Ambient Temp: -40 to +85°C
Process Temp: -40 to +120°C

**WARNING! READ BEFORE INSTALLATION!**

Caution must be taken when installing and operating the CS60, CS64, CS66 and CS68 in known Class I, Division 1, Groups A,B,C,D and Class I, Zone 1, IIC hazardous locations. Any mis-use or improper installation may impair the equipment's intended use and/or protection ratings. Thoroughly read and understand the following instructions prior to installation.

Please call Core Sensors at (862) 245-2673 if you are unsure about any of the following precautions or instructions.

WARNING INSTRUCTIONS



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

ELECTRICAL INSTALLATION (Installation électrique)



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

AVERTISSEMENT - Pour éviter l'inflammation des atmosphères inflammables ou combustibles, débranchez l'alimentation avant de procéder à l'entretien.



Suitable for use in Class I, Division 1, Groups A, B, C, and D hazardous locations and non-hazardous locations only.

AVERTISSEMENT - Convient pour une utilisation dans les emplacements dangereux de Classe I, Division 1, Groupes A, B, C et D et dans les emplacements non dangereux uniquement.



The enclosure contains light metal. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation.

AVERTISSEMENT - L'enceinte est fabriquée en métal léger. Dans de rares cas, des sources d'inflammation dues à des chocs et à des étincelles de frottement peuvent se produire. Cela doit être pris en compte lors de l'installation.

SPECIAL CONDITIONS FOR SAFE USE (CONDITIONS OF ACCEPTABILITY)

1. The CS6x series sensors shall be supplied by Class 2 or limited energy source only in accordance with CSA 61010-1-12.
2. This equipment does not require an explosionproof seal. However, connection to the equipment shall be made via conduit only.

Media Compatibility and Adverse Service Conditions

It is the responsibility of the end user to ensure that the intended media is compatible for the model and application. Conditions such as pressure, temperature, corrosiveness, environment (such as sour gas and concentration levels) and end-location must be considered by the end user as part of the material selection. Please consult factory for any questions regarding media compatibility.

ENVIRONMENTAL RATINGS (61010-1)

Pollution Degree	3
Overvoltage Category	II
Maximum Use Altitude	2000m above sea level

MOUNTING

The CS60 and CS66 can be mounted in any orientation with negligible effects on the output for operating pressures 50 PSI and above. For operating pressures below 50PSI, mounting orientation can effect the output. Contact factory for more information.

The CS64 and CS68 should be mounted with the process connections facing horizontal. This is the orientation used during calibration. Low pressure transducers feature an oil-filled cavity behind the diaphragm which will cause changes in the output when the orientation is changed.

When using the CS64 and CS68 as a gauge sensor, take care of the low sensor side by ensuring the port is not blocked or clogged with debris as this will effect sensor performance. If applicable in the field, attach a tube with a 1/4 FNPT fitting to the low sensor side and place the other side of the tube in a clean dry environment as this ensures the low sensor side receives adequate venting at all times.

No special hardware or mounting plates are required.

CONDUIT CONNECTION INSTALLATION

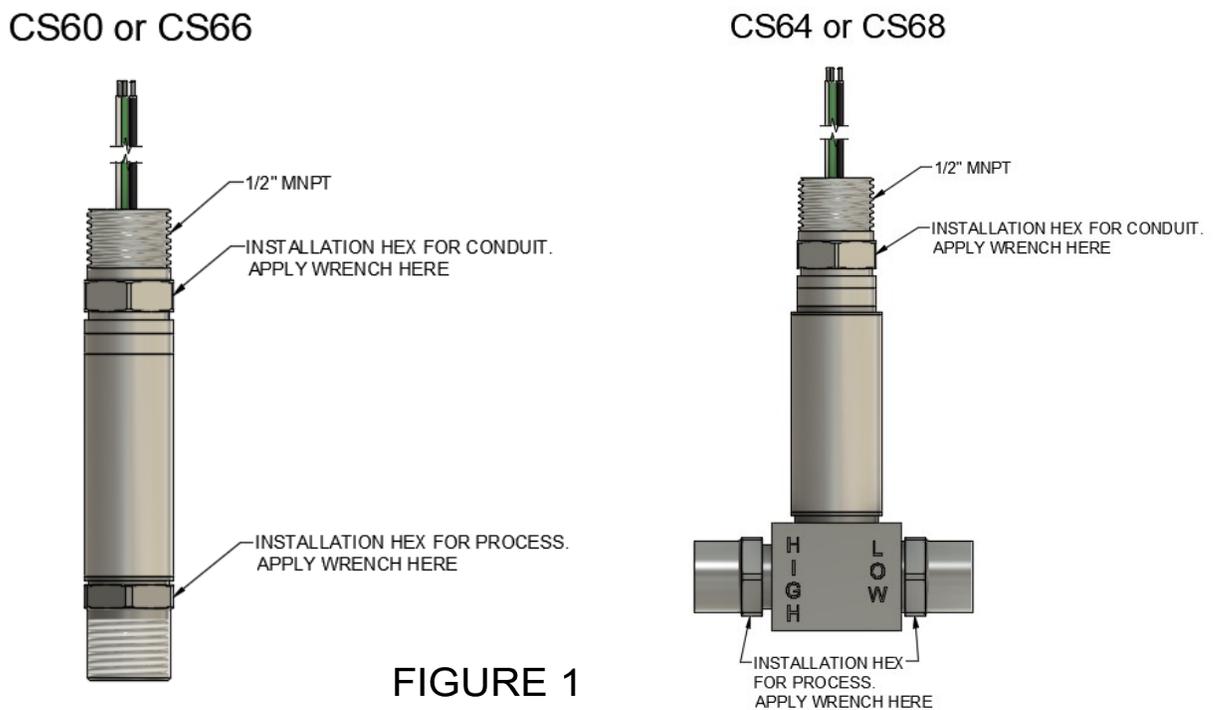
The CS6X is pre-wired and designed for direct connection to a rigid metal conduit system. The CS6X is equipped with 1/2 NPT male threads (7.47 minimum) on the conduit side as shown in Figure 1 below. When tightening, use a wrench around the 22mm hex located below the electrical connection threads. **DO NOT** use the housing or process end of the sensor to tighten. See figure 1 below for the proper tightening location.

PROCESS CONNECTION INSTALLATION

For NPT threaded installations, Teflon tape or an equivalent sealant must be applied to the threads prior to installation.

Proper sealing elements such as O-rings must be installed prior to installation for non self-sealing threads, e.g. SAE. Chemical compatibility between the sealing element and media being measured must be confirmed prior to use.

When tightening, use a wrench around the 22mm hex located above the process connection threads. **DO NOT** use the housing or electrical end of the sensor to tighten. See figure 1 below for the proper tightening location.



MAINTENANCE/CLEANING

To prevent any unnecessary down-time and maximize the life-span of the pressure sensor:

- Ensure contacts of the electrical connections are dry and free from foreign debris. Use a dry cloth to wipe down the electrical contacts.
- Ensure pressure port is free from debris as any clogged debris can effect the accuracy of the readings. Rinse the pressure port with generic 70/30 water/alcohol mixture. Do not insert any probe, such as a screwdriver or even a cotton swab, into the pressure port as it may cause permanent damage to the pressure sensing elements.
- Inspect pressure sensor for any physical damage. If any is detected, discontinue use and contact factory.
- The CS6X has no field serviceable parts. Please contact factory if service is required.

WIRING GUIDES

To avoid ignition of flammable or combustible atmospheres, ensure the following precautions are taken prior to and during the wiring process:

- Follow the proper ESD control procedures prior to handling the pressure transducer.
- Before making any electrical connections, ground the body of the pressure transducer.
- When uninstalling the pressure transducer, disconnect the ground last.
- Ensure that the wiring specifications conforms to local electrical code and has a temperature rating greater than 80°C.
- For pin identification, please refer to Wiring at [Core-Sensors.com](https://www.core-sensors.com).

WIRES/FLYING LEADS

Electrical connection option “R”

Output	Red	Black	Green	White	Drain	Blue
mV (4-wire)	+V	Ground	+Signal	-Signal	Case	N/A
Voltage (3-wire)	+V	Ground	Case	Signal	N/A	N/A
4-20mA (2-wire)	+V	-V	Case	N/A	N/A	N/A
Voltage PT (4-wire)	+V	Ground	Case	Pressure	N/A	Temperature
4-20mA PT (4-wire)	+Vp	-Vp	Case	-Vt	N/A	+Vt