

CS72 Intrinsically Safe Submersible Pressure Transducer



- CSA Class 1, Division 1, Groups A, B, C, D, T4
- Class 1, Zone 1 AEx ia IIC T4 Gb
- Pressures up to 100 PSI
- $\leq \pm 0.25\%$ BFSL accuracy



OVERVIEW

The CS72 Intrinsically Safe Submersible pressure transducer is designed for use in hazardous locations with an approved barrier (see entity parameters on page 3). The CS72 is approved to CSA Class 1, Division 1 Intrinsically Safe, Groups A, B, C, D, T4. 316L stainless steel wetted material and a PUR cable jacket allow for compatibility in a wide variety of liquids. The CS72 is sealed from liquids entering the electronics through precision welds and a unique cable seal design. An integral vent tube allows the sensor to correct for changes in barometric pressure. Configurable pressure ranges up to 100 PSI are available with a 4-20mA current or various voltage output signals.

SPECIFICATIONS

Pressure Range	0 to 100 PSI	Accuracy (includes non-linearity, hysteresis, non-repeatability)	$\leq \pm 0.25\%$ FSO BFSL
Pressure Type	Gauge	Stability (1 year)	$\leq \pm 0.2\%$ of FS
Overpressure	1.5x, min	Zero Offset	$\pm 0.5\%$ typical, $\pm 1\%$ max
Burst Pressure	3x	Span Tolerance	$\pm 0.5\%$ typical, $\pm 1\%$ max
Pressure Cycles	50 million	TC Zero	$\leq \pm 1\%$ of FS
Storage Temperature	-40 to +125°C	TC Span	$\leq \pm 1\%$ of FS
Operating Temperature	-40 to +85°C	Vibration	IEC68-2-6, IEC68-2-36
Compensated Temperature	-20 to +85°C	Shock	IEC68-2-32
EMI/RFI Protection	Yes, EN61326 (Class B)	Insulation Resistance	>100M Ω @ 50 Volts
IP Rating	IP68	Isolation Voltage	500VAC
Response Time (10-90%)	~ 20 milliseconds		

ELECTRICAL INFORMATION

Output	4-20mA, 1-5V	0.5-4.5V ratiometric	0.5-2.5V non-ratiometric
Power Supply Requirements	10-27 VDC, unregulated	5VDC, +/- 0.5V, regulated	3-5VDC, unregulated

*For wiring information, visit: <https://www.core-sensors.com/wiring/>

ORDERING INFORMATION

CS72 - 6 - A - XXXXX - W - G - X - X - 000 - XX

Process Connection

6 = Nose Cone

Wetted Material

A = 316L SS

Pressure Range

- 00030 = 30 Inches of H2O (~ 1 PSI)
 - 00080 = 80 Inches of H2O (~3 PSI)
 - 00140 = 140 Inches of H2O (~ 5 PSI)
 - 00225 = 225 Inches of H2O (~8 PSI)
 - 00275 = 275 Inches of H2O (~10 PSI)
 - 00700 = 700 Inches of H2O (~25 PSI)
 - 01400 = 1,400 Inches of H2O (~50 PSI)
 - 02100 = 2,100 Inches of H2O (~75 PSI)
 - 02700 = 2,700 Inches of H2O (~100 PSI)
- *Common ranges listed. Contact factory for non-standard ranges.

Pressure Unit

W = Inches of H2O
 * Contact factory for other available pressure units

Pressure Reference

G = Gauge

Cable Length (Meters)

- 01 = 1 meter (included)
- 02 = 2 meters
- 03 = 3 meters
- 05 = 5 meters
- 10 = 10 meters
- 16 = 16 meters
- 20 = 20 meters
- 32 = 32 meters

Options

000 = No Special Options

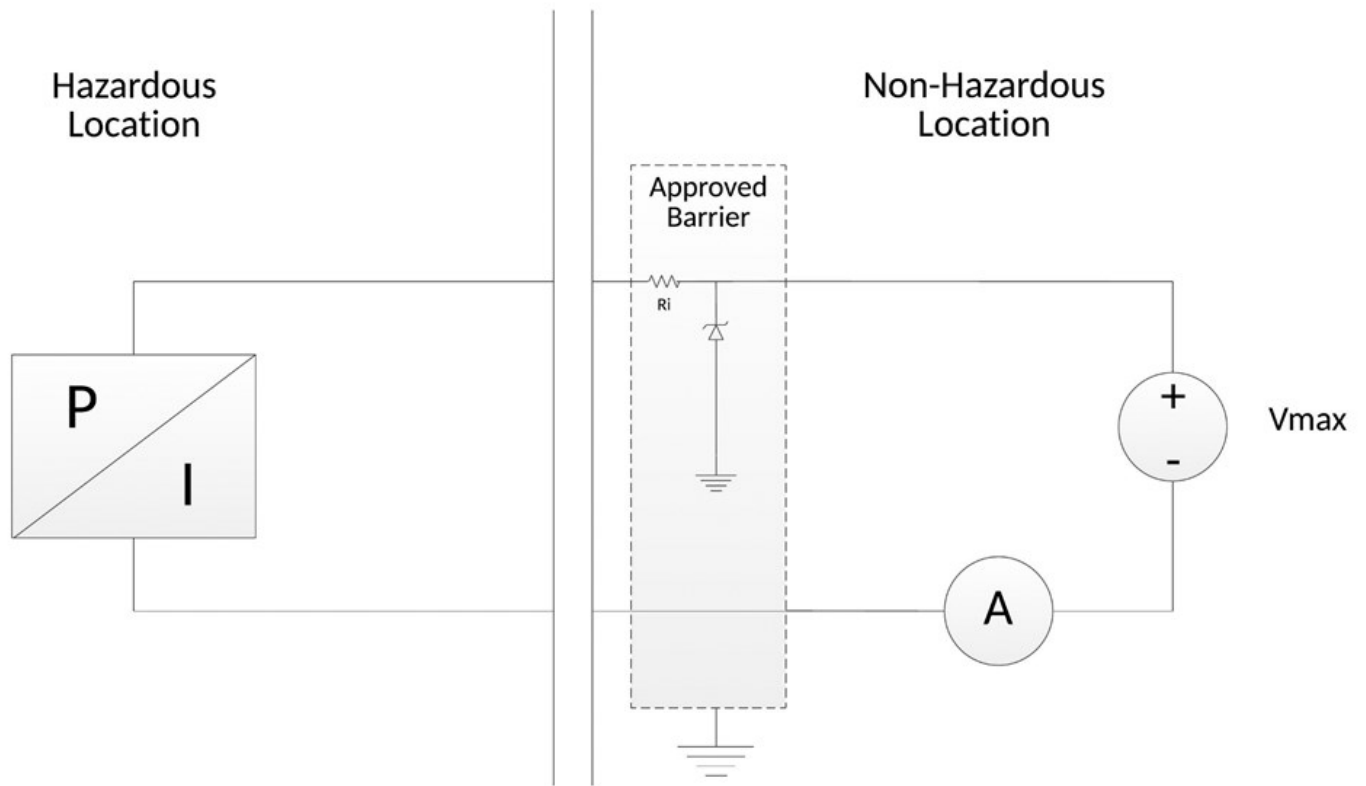
Electrical

L = Cable (See "Cable Length")
 P = Conduit w/ cable (See "Cable Length")

Output

- 1 = 1-5V
- 2 = 0.5-4.5V Ratiometric
- 4 = 4-20mA
- 8 = 0.5-2.5V Non-ratiometric

Entity Parameters



Entity Parameters for CS72

U_i	27 VDC
P_i	0.85 W
L_i	Negligible
I_i	125 mA
C_i	5 nF

DIMENSIONAL DATA (For reference only)

