CORE SENSORS

CS20

Industrial Temperature Transmitter

The CS20 is an industrial temperature transmitter for fluid temperature measurement applications. Features include a 316L SS probe and thread area and a stainless steel housing, making it compatible with a wide range of process liquids and gasses. Configurable temperature ranges from -40 to +200°C are available with various probe lengths. A wide variety of standard amplified outputs and electrical connections are also available.

Features

- ≤ ±0.4% BFSL accuracy
- -40 to +200°C configurable temperature range
- 316L SS probe and thread area (special order Hastelloy C276 available)

Applications

- Gear box lubrication systems
- Hydraulic oil fluid
- Gas flow
- Water & chemical storage

SPECIFICATIONS

Performance

Accuracy*	≤ ±0.4% BFSL
Sensor Type	RTD
Total Error at RT (of FS)	± 0.5% typical, ± 1% max
Total Error at FS (of FS)	± 2% max
Max Pressure (<2 inch probe)	7,250 PSI
Max Pressure (>2 inch probe)	2,175 PSI

* Accuracy includes non-linearity, hysteresis and non-repeatability

Thermal / Environmental

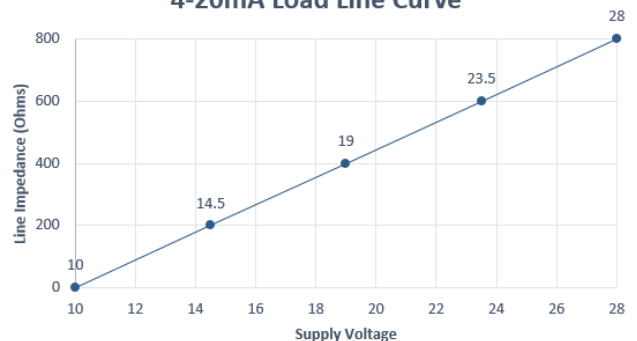|	
Ambient Operating Temperature	-40 to +85°C
Storage Temperature	-40 to +125°C
Insulation Resistance	100MΩ (50 VDC case to pins)
EMI/RFI Protection	Yes
IP Rating*	IP65
Vibration	10g, 10 to 1000Hz
Shock	100g, 11msec, 1/2 sine

*IP rating is dependent on electrical termination selection. Contact factory for more information.

Electrical

Output	4-20mA	1-5V	0.5-4.5V ratiometric
Excitation	10-28VDC	10-28VDC	5VDC +/-0.5V
Current Consumption	20mA, typical	<10mA	<10mA
Output Load	See Load Line Curve	5K Ohms, min	5K Ohms, min
Frequency Response	~ 250Hz	~ 1kHz	~ 1kHz

For wiring information, visit http://www.core-sensors.com/wiring

4-20mA Load Line Curve

Core Sensors | Phone: (862) 245-2673 | www.core-sensors.com
All specifications subject to change without notice

MODEL NUMBER CONFIGURATION

CS20- X X X XXX X X 000 - XX

Model Family
CS20 - Industrial Temperature Transmitter

Process Connection
1 = 1/2" NPT Male
2 = 1/4" NPT Male
4 = 7/16-20 UNF Male
5 = G1/4 Male

Probe Length
A = 0.5 inches   **E =** 4 inch
B = 1 inch   **F =** 5 inch
C = 2 inch   **G =** 6 inch
D = 3 inch

Wetted Material
A = 316L SS
C = Hastelloy C276 (Special order item. Contact factory)

Temperature Range
01A = 0 to 100°C   **05A =** -55 to 125°C
02A = 0 to 200°C   **06A =** -18 to 100°C
03A = 0 to 70°C   **07A =** -50 to 50°C
04A = -40 to 85°C

Cable Length (Meters)
Electrical option "L" only
00 = No cable
01 = 1 meter
02 = 2 meters
03 = 3 meters

Options
000 = No Special Options

Electrical
A = M12x1
B = Deutsch DT04-4P
C = Packard 3-Pin
D = Mini-DIN, Form C
F = DIN 43650, Form A
G = 6-Pin Bendix
L = Cable (See "Cable length")

Output
1 = 1-5V
2 = 0.5-4.5V ratiometric
4 = 4-20mA

* Ordering Example: CS20-1BA01A1A000-00 (0 to 100°C, 1/2" MNPT, 1-5V, M12x1, 316L SS, 1 inch probe)
 * Contact factory for custom configurations not shown

DIMENSIONS

Specified Cable Length
4.209
Ø0.866
22mm Hex
0.535
0.535
2.008
1/2"-14 NPT Male
Ø0.236

1.929
Ø0.866
22mm Hex
0.571
1/4"-18 NPT Male
5.984
Ø0.236
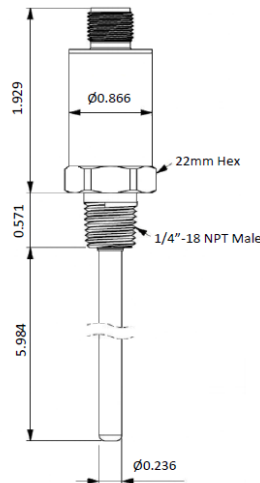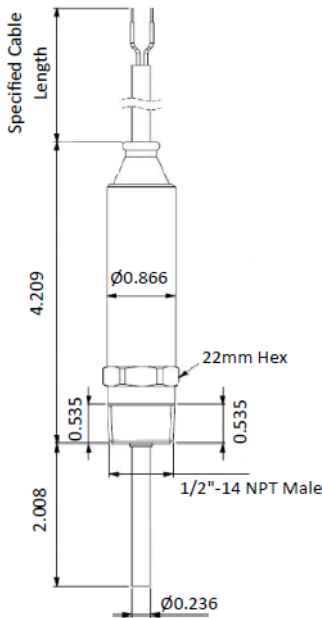
*Dimensions are for reference only

WARRANTY 1 YEAR WARRANTY

We are committed to delivering the highest quality instrumentation on every order.

Core Sensors warrants that all items shipped will be free of defects in material and workmanship for a period of one (1) year from the date of shipment.

View complete warranty information online at www.core-sensors.com.