

CS20

Industrial Temperature Transmitter

FEATURES

- Configurable temperature ranges from -40 to +200°C
- Amplified 4-20mA or 1-5V output signal
- 316L SS probe and process connection
- Reverse polarity and EMI protection

GREAT FOR....

- Hydraulic oil fluid temperature
- Gas flow temperature
- Water and chemical storage
- Gearbox lubrication systems



About the CS20

The **CS20 Industrial Temperature Transmitter** is designed for fluid temperature measurement applications. A 316L SS probe and thread area allow for installation in a wide range of process liquids and gasses. An internal amplifier offers a 4-20mA or 1-5V output signal to reduce installation time. Configurable temperature ranges from -40 to +200°C are available with various probe lengths.



Amplified Output Signal

No external amplification required

The CS20 Industrial Temperature Transmitter features an **internal amplifier, offering either a 4-20mA or 1-5V output signal**. This eliminates the need for the user to amplify the ohm resistance from the RTD. The CS20 transmitter can be connected directly to an existing data acquisition system in minutes with minimal setup. Refer to the “Model Number Configuration” section of this page for the available calibrated temperature ranges.

Various probe lengths and electrical connectors including a DIN43650-A or M12x1 Eurofast are available, further simplifying installation.

SPECIFICATIONS

Performance

| | |
|---------------------------|-----------------------|
| Sensor Type: | RTD PT100, Class B |
| Total Error at RT: | $\leq \pm 1\%$ |
| Total Error at FS: | $\leq \pm 1\%$ |
| Max Pressure: | 5,000 PSI |

Thermal

| | |
|-------------------------------|---------------|
| Operating Temperature: | -40 to +85°C |
| Media Temperature:* | -40 to +200°C |
| Storage Temperature: | -40 to +125°C |

* Media temperature is user selected at the time of ordering. Not all transmitters are scaled to measure -40 to +200°C. Refer to the "Model Number Configuration" on [page 3](#) for available ranges.

Environmental

| | |
|----------------------------|--------------|
| EMI/RFI Protection: | Yes |
| IP Rating:* | IP65 minimum |

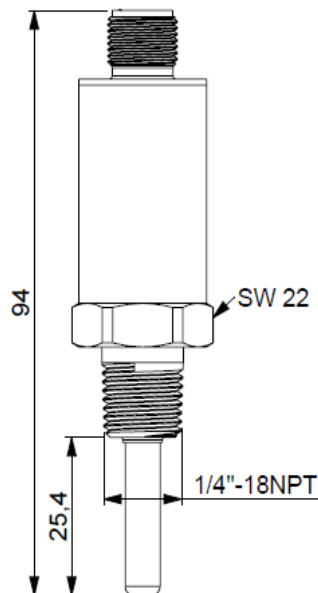
* IP Rating is dependent on electrical termination selected. Contact factory for more information.

* IP Rating applies when electrical connector is attached with the appropriate ingress protection.

For wiring information, visit core-sensors.com/wiring

DIMENSIONS

*Dimensions are for reference only

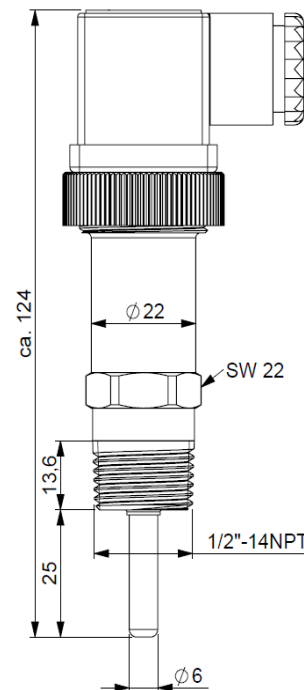


Electrical (Current)

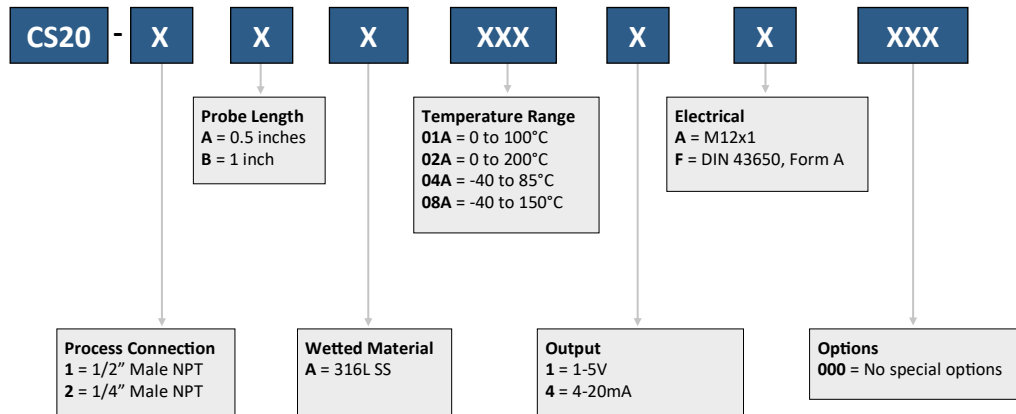
| | |
|----------------------------------|---|
| Outputs: | 4-20mA |
| Excitation: | 10-28VDC |
| Current Consumption: | 20mA, typical |
| Output Load: | 0-800 Ohms @ 10-28VDC |
| Frequency Response (min): | ~250Hz |
| Zero Offset (of FS): | $\leq \pm 0.5\%$ typical $\pm 1\%$ max |
| Span Tolerance (of FS): | $\leq \pm 0.5\%$ typical $\pm 1\%$ max |

Electrical (Voltage)

| | |
|----------------------------------|---|
| Outputs: | 1-5V |
| Excitation: | 10-28VDC |
| Current Consumption: | <10mA |
| Output Load: | 5K Ohms, min |
| Frequency Response (min): | ~1kHz |
| Zero Offset (of FS): | $\leq \pm 0.5\%$ typical $\pm 1\%$ max |
| Span Tolerance (of FS): | $\leq \pm 0.5\%$ typical $\pm 1\%$ max |



MODEL NUMBER CONFIGURATION



Ordering Example: CS20-2BA01A4A000 (1/4" Male NPT, 1 inch probe, 316L SS, 0 to 100°C, 4-20mA, M12x1)

Not all configurations are available. Our sales team can recommend the closest available configuration based on your requirements. Contact Core Sensors for configurations not shown. Visit our [How To Buy](#) page or [contact us](#) for a quote.

****Disclaimer:** Unless otherwise agreed in writing, Core Sensors products are not authorized for use in applications including medical devices, life support systems, in-flight aerospace, nuclear or any other application where the product failure could result in personal injury or death.

Warranty information can be found online at core-sensors.com.