

CS-SM

Steel Mill Pressure Transducer

FEATURES

- Pressures up to 350 Bar
- 4X overpressure protection
- Integral snubber protects against pressure transients
- IP69 protection against high pressure washdowns

GREAT FOR....

- Stamping
- Roll forming
- Rolling mill
- Pumps



About the CS-SM

The **CS-SM Steel Mill Pressure Transducer** is designed to withstand the rugged demands of the steel mill industry. The standard configuration includes a stainless steel body welded to a high strength stainless steel sensing element offering 4X overpressure protection, integral snubber to protect against pressure transients and an IP69 rating. Electrical connections include integral cable or a 6-Pin Bendix with a variety of output signals and process connections.



High Strength Pressure Transducer

Built for the toughest environments

1) Snubber: A integral snubber (or restrictor plug) is standard on the CS-SM, dampening the pressure spikes that are common in steel and rolling mill applications. Even with the addition of the snubber, the CS-SM is still capable of responding to pressure quickly; ~1kHz for voltage outputs and ~250Hz for 4-20mA current output.

2) Overpressure Protection: By carefully selecting the appropriate diaphragm thickness, the CS-SM is capable of achieving 4X overpressure protection and 10X (or 20,000 PSI) burst pressure protection. These protections are critical in applications such as stamping and roll forming as the sudden pressure events can easily exceed the intended application pressure.

3) IP69 Rating: A 6-Pin Bendix electrical connector is precision tig welded onto the sensors body, providing an IP69 rating. This ensures the sensor will continue operating, even during high pressure washdown events.

SPECIFICATIONS

Performance

| | |
|--------------------|--------------------------------------|
| Accuracy @ 25°C:* | ≤ ±0.25% BFS |
| Stability (1 Year) | ≤ ±0.25% of FS |
| Pressure Cycles | > 100 million |
| Overpressure | 4X minimum |
| Burst Pressure | 10X or 20,000 PSI, whichever is less |

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

Thermal

| | |
|--------------------------|---------------|
| Operating Temperature: | -40 to +100°C |
| Media Temperature: | -40 to +120°C |
| Compensated Temperature: | +20 to +90°C |
| Storage Temperature: | -40 to +120°C |
| TC Zero: | ≤ ±1% of FS |
| TC Span: | ≤ ±1% of FS |

Environmental

| | |
|---------------------|------------------------|
| EMI/RFI Protection: | Yes |
| IP Rating:* | IP69 |
| Vibration: | 20g, 20 to 2400Hz |
| Shock | 100g, 11msec, 1/2 sine |

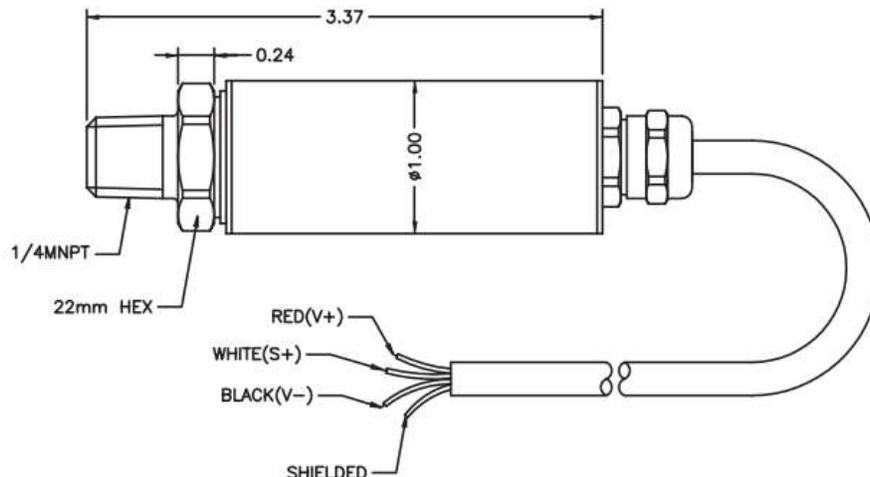
* IP Rating is dependent on electrical termination selected. Contact factory for more information.

* 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



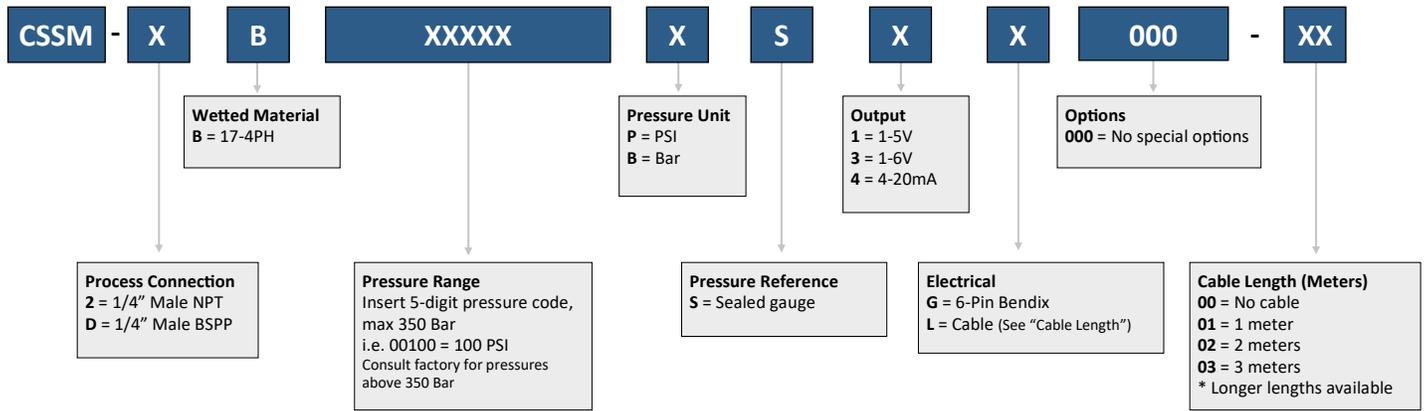
Electrical (Current)

| | |
|---------------------------|------------------------------|
| 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): | ≤ ± 0.5% typical ± 1% max |
| Span Tolerance (of FS): | ≤ ± 0.5% typical ± 1% max |

Electrical (Voltage)

| | |
|---------------------------|------------------------------|
| Outputs: | 1-5V 1-6V |
| Excitation: | 10-28VDC |
| Current Consumption: | <10mA |
| Output Load: | 5K Ohms, min |
| Frequency Response (min): | ~1kHz |
| Zero Offset (of FS): | ≤ ± 0.5% typical ± 1% max |
| Span Tolerance (of FS): | ≤ ± 0.5% typical ± 1% max |

MODEL NUMBER CONFIGURATION



Ordering Example: CSSM-2B01000PS4G000-00 (1/4" Male NPT, 17-4PH, 0-1000 PSI sealed gauge, 4-20mA, 6-Pin Bendix)
 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.

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