

# CS1H

## High Accuracy Pressure Transducer

The CS1H series is a high performance precision pressure transducer designed for applications requiring high accuracy. A digital signal processor allows for excellent performance over temperature with continuous thermal compensation and linearity correction. Standard and custom configurations are available.



### Features

- $\leq \pm 0.1\%$  BFSL accuracy
- Pressures up to 20,000 PSI
- Digital signal processor for low thermal errors
- Reverse polarity protection

### Applications

- Hydraulic / pneumatic equipment
- Test stands
- Building controls
- Hydrogen (316L SS only)

## SPECIFICATIONS

### Performance

Accuracy*	$\leq \pm 0.1\%$ BFSL
Stability (1 Year)	$\leq \pm 0.1\%$ of FS
Pressure Cycles	100 million
Overpressure	2X minimum
Burst Pressure	5X or 50,000 PSI, whichever is less

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

### Thermal

Operating Temperature	-40 to +85°C
Storage Temperature	-40 to +125°C
Compensated Temperature	0 to +70°C
TC Zero	$\leq \pm 0.5\%$ FS
TC Span	$\leq \pm 0.5\%$ FS

### Environmental

EMI/RFI Protection	Yes
IP Rating*	IP65 minimum
Vibration	10g, 20 to 2000Hz
Shock	100g, 11 msec, 1/2 sine

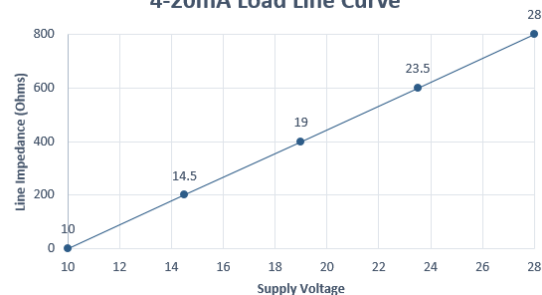
\*IP rating is dependent on electrical termination selection. Contact factory for more information.

### Electrical

Output	4-20mA	1-5V, 1-6V, 0-5V (3-wire)	0-10V (3-wire)	0.5-4.5V ratiometric
Excitation	10-28VDC	10-28VDC	15-28VDC	5VDC +/-0.5V
Current Consumption	20mA, typical	<10mA	<10mA	<10mA
Output Load	See Load Line Curve	5K Ohms, min	5K Ohms, min	5K Ohms, min
Frequency Response	400Hz	400 Hz	400 Hz	400 Hz
Zero Offset (of FS)	$\leq \pm 0.5\%$	$\leq \pm 0.5\%$	$\leq \pm 0.5\%$	$\leq \pm 0.5\%$
Span Tolerance (of FS)	$\leq \pm 0.5\%$	$\leq \pm 0.5\%$	$\leq \pm 0.5\%$	$\leq \pm 0.5\%$

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

4-20mA Load Line Curve

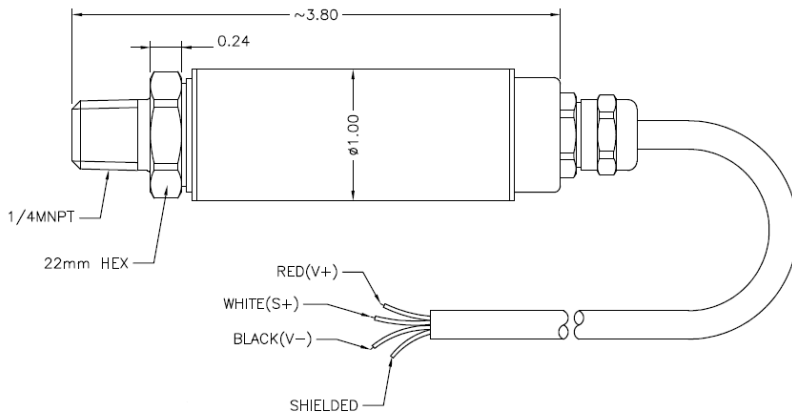


# MODEL NUMBER CONFIGURATION

**CS1H- X X XXXXX X X X X XXX -XX**

<p><b>Model Family</b> CS1H - High Accuracy Pressure Transducer</p> <p><b>Process Connection</b>  <b>1</b> = 1/2" NPT Male  <b>2</b> = 1/4" NPT Male  <b>3</b> = 1/8" NPT Male  <b>4</b> = 7/16-20 UNF Male  <b>8</b> = F250C Female Autoclave (≥10,000 PSI)</p> <p><b>Wetted Material</b>  <b>A</b> = 316L SS  <b>B</b> = 17-4PH  <b>C</b> = Hastelloy C276 (special order item)  <b>D</b> = Inconel 718 (special order item)</p> <p><b>Pressure Range</b>            Insert 5-digit pressure code, max 20,000 PSI            (i.e. 20000 = 20,000 PSI)</p> <p><b>Pressure Unit</b>  <b>P</b> = PSI  <b>B</b> = Bar</p> <p><b>Pressure Reference</b>  <b>G</b> = Gauge  <b>S</b> = Sealed Gauge  <b>V</b> = Vacuum (Gauge)  <b>C</b> = Vacuum (Sealed Gauge)</p> <p><small>* Ordering Example: CS1H-2A00500PS4A000-00 (0 to 500 PSI, 1/4" NPT Male, 4-20mA, M12x1, 316L SS, Sealed Gauge)            * Contact factory for custom configurations not shown</small></p>	<p><b>Cable Length (Meters)</b>  <b>Electrical option "L" only</b>  <b>00</b> = No cable  <b>01</b> = 1 meter  <b>02</b> = 2 meters  <b>03</b> = 3 meters</p> <p><b>Options</b>  <b>000</b> = No Special Options</p> <p><b>Electrical</b>  <b>A</b> = M12x1  <b>D</b> = Mini-DIN, Form C  <b>F</b> = DIN 43650, Form A  <b>G</b> = 6-Pin Bendix  <b>L</b> = Cable (See "Cable length")</p> <p><b>Output</b>  <b>1</b> = 1-5V  <b>2</b> = 0.5-4.5V ratiometric  <b>3</b> = 1-6V  <b>4</b> = 4-20mA  <b>5</b> = 0-5V (3-wire)  <b>7</b> = 0-10V (3-wire)</p>
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# DIMENSIONS



\*Dimensions are for reference only



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](http://www.core-sensors.com).