

## 22CS Series / 26CS Series – CSA Intrinsically Safe Industrial Pressure Transmitters

- ▶ Ranges from 7.5 to 6000psi (0.5 to 400 bar) and 0-300psi (0-25 bar) Absolute
- ▶ Voltage and 2 Wire 4-20mA output models
- ▶ All stainless steel wetted parts

Certified by CSA for Canada and USA, the 22CS and 26CS Series intrinsically safe pressure transmitters are designed to withstand the rigors of the most difficult applications. An all-stainless steel construction, eliminates the need for seals and oil barriers that can deteriorate over time.

Incorporating Gems CVD Sensors and ASIC technology the 22CS and 26CS Series offer long term reliability, excellent performance and long term stability ensuring long service life without routine maintenance.

Available with a wide choice of pressure fittings and electrical connections rated from IP65 to fully immersible (IP68 200m WG).

### Specifications

<b>Input</b>	
<b>Pressure Range</b>	Vacuum to 6000 psi G (400 bar); 300 psi Absolute (0-25 bar)
<b>Proof Pressure</b>	2 x Full Scale (FS) (1.5 x FS for 400 bar, ≥ 5000 psi)
<b>Burst Pressure</b>	>35 x FS ≤ 100 psi (6 bar); >20 x FS ≤ 1000 psi (60 bar); >5 x FS ≤ 6000 psi (400 bar)
<b>Fatigue Life</b>	Designed for more than 100 million FS cycles
<b>Performance</b>	
<b>Long Term Drift</b>	0.2% FS/year (non-cumulative)
<b>Accuracy</b>	0.25% FS typical (optional 0.15% FS)
<b>Thermal Error</b>	1.5% FS typical (optional 1% FS)
<b>Compensated Temperatures</b>	-5°F to +180°F (-20°C to +80°C)
<b>Operating Temperatures</b>	-40°F to +260°F (-40°C to +125°C) for elec. codes A, B, C -5°F to +180°F (-20°C to +80°C) for elec. codes G -5°F to +125°F (-20°C to +50°C) for elec. codes F, M, 3
<b>Zero Tolerance</b>	1% of span
<b>Span Tolerance</b>	1% of span
<b>Mechanical Configuration</b>	
<b>Pressure Port</b>	See ordering chart
<b>Wetted Parts</b>	17-4 PH Stainless Steel
<b>Electrical Connection</b>	See ordering chart
<b>Enclosure</b>	316 SS, 17-4 PH SS IP65 for elec. codes A, B, C, 3 and G (with DIN connector fitted) IP67 for elec. code F IP68 for elec. codes M
<b>Vibration</b>	35g peak sinusoidal, 5 to 2000 Hz
<b>Acceleration</b>	100g steady acceleration in any direction 0.032% FS/g for 15 psi (1 bar) range decreasing logarithmically to 0.0007% FS/g for 6000 psi (400 bar) range.
<b>Shock</b>	Withstands free fall to IEC 68-2-32 procedure 1
<b>Approvals</b>	CSA Certified Class I, Division 1, Groups A, B, C, D Class II, Division 1, Groups E, F, G Class III When used in conjunction with a Zener safety barrier
<b>Weight</b>	Approx. 3.5 ounces (100 grams) (additional cable; 75 g/m)

Series 22CS



Series 26CS



## Individual Specifications

Voltage Output units	
Output	See ordering chart
Supply Voltage (Vs)	1.5 VDC above FS output to 28 VDC
Supply Voltage Sensitivity	0.01% FS/Volt
Min. Load Resistance	(FS output / 2) Kohms
Current Consumption	Approx 6 mA at 7.5V output
Current Output units	
Output	4-20 mA (2 wire)
Supply Voltage (Vs)	24 VDC, (7-28 VDC)
Supply Voltage Sensitivity	0.01% FS/Volt
Max. Loop Resistance	(Vs-7) x 50 ohms

## Electrical Connections

	Connection Code	mA Output			Voltage Output			
		+VE	-VE	EARTH	-VE	COMMON	EARTH	EARTH
22CS	A, B	1	2	E	1	2	2	4
	2, D, F	R	BK	DRAIN	R	BK	W	DRAIN
26CS	1	A	B	D	A	B	C	D
	C	A	B	E	A	B	C	E
	G	1	3	E	1	2	3	E
	3 (Cable)	R	BK	DRAIN	R	BK	W	DRAIN
	F (Leads)	R	BK	GR	R	BK	W	GR
	M	R	BL	DRAIN	R	W	Y	DRAIN

## Electromagnetic Capability

Meets the requirement for CE marking of EN50081-2 for emissions and EN50082-2 for susceptibility.

Test Data:


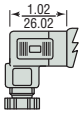
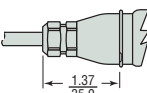
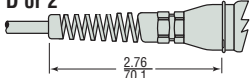
- EN61000-4-2 Electrostatic Discharge. 8kV air discharge, 4kV contact discharge. Unit survived.
- ENV50140 Radiated RF Susceptibility. 10V/m, 80MHz-1GHz, 1kHz mod. Maximum recorded output error was  $<\pm 1\%$
- ENV50204 Radiated RF Susceptibility to Mobile Telephones. 10V/m, 900MHz. Maximum recorded output error was  $<\pm 1\%$ .
- EN61000-4-4 Fast Burst Transient. 2kV, 5/50ns, 5kHz for 1 minute. Unit survived.
- ENV50141 Conducted RF Susceptibility. 10Vms, 1kHz mod, 150kHz - 80MHz. Maximum recorded output error was  $<\pm 1\%$

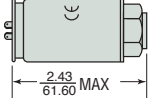

### Cable Legend:

R = Red  
 BK = Black  
 W = White  
 G = Green  
 BL = Blue  
 Y = Yellow










## Dimensions

### 22CS Series


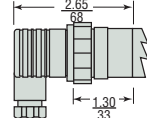
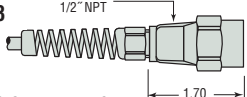
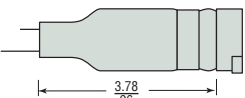
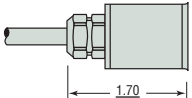
<b>Industrial DIN Connector</b>
<b>Code B</b> 
<b>Industrial DIN Connector (mate supplied)</b>
<b>Code A</b> 
<b>IP67 Cable</b>
<b>Code F</b> 
24 AWG Shielded PVC
<b>IP65 or NEMA4 Cable</b>
<b>Code D or 2</b> 
24 AWG Shielded PVC

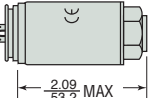
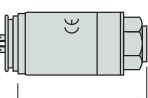
<b>Amplified Gauge</b> 
<b>Amplified Absolute</b> 

Maximum diameter 1.07" (27.3 mm)

<b>1/8-27 NPT</b>
<b>Code 08</b> 
<b>1/4 - 1/8 NPT</b>
<b>Code 02</b> 
<b>7/16-20 UNF-2A</b>
<b>Code 04</b> 
<b>G1/8 Internal</b>
<b>Code 09</b> 
<b>G1/4 Internal</b>
<b>Code 00</b> 
<b>G1/4 External</b>
<b>Code 01</b> 
<b>G1/4 Soft Seal</b>
<b>Code 05</b> 
<b>G1/2 Manometer</b>
<b>Code 03</b> 
<b>R1/4</b>
<b>Code 0A</b> 

### 26CS Series

<b>10-6 or 8-4 Mil-C Connector</b>
<b>10-6 Code C</b> 
<b>8-4 Code 1</b>
<b>Large DIN 43650 Plug (mate supplied)</b>
<b>Code G</b> 
<b>Conduit Connector with Cable</b>
<b>Code 3</b> 
24 AWG Shielded PVC
<b>Conduit Connector with Flying Leads</b>
<b>Code M</b> 
<b>Code F</b> 

<b>Amplified Gauge</b> 
<b>Amplified Absolute</b> 

Maximum diameter 1.07" (27.3 mm)

inch  
mm

## How to Order

Use the **bold** characters from the chart below to construct a product code

			<b>22CS</b>	<b>B</b>	<b>G</b>	<b>A60</b>	<b>01</b>	<b>A</b>	<b>C</b>	<b>U</b>	<b>A</b>	
Series											Performance Code	
	<b>22CS</b>	<b>26CS</b>									Accuracy/Thermal	
Output											A - .25%/1.5%	
	<b>B</b> - 4-20mA	<b>C</b> - 1-6V	<b>J</b> - 0.5-5.5V									B - .15%/1.0%
		<b>D</b> - 1-11V	<b>R</b> - 0-5V									
		<b>H</b> - 1-5V	<b>S</b> - 0-10V									
		<b>G</b> - 0.2-10.2V	<b>F</b> - 0.1-5.1V									
Pressure Datum	<b>A</b> - Absolute		<b>G</b> - Gauge								Cable Length	
											U - No Cable Fitted	
											D - 3 feet (1 Meter)	
											E - 9 feet (3 Meters)	
											F - 16 feet (5 Meters)	
											G - 32 feet (10 Meters)	
											H - 50 feet (15 Meters)	
											J - 65 feet (20 Meters)	
											K - 82 feet (25 Meters)	
											L - 98 feet (30 Meters)	
											M - 132 feet (40 Meters)	
											N - 164 feet (50 Meters)	
											P - 246 feet (75 Meters)	
											Q - 328 feet (100 Meters)	
											R - 410 feet (125 Meters)	
											S - 525 feet (160 Meters)	
Pressure Range <sup>1</sup> - psi											Apparatus Protection	
	<b>F15</b> - 0-15	<b>G60</b> - 0-600			<b>Vac</b> = -15 psi						C - CSA Approved Intrinsically Safe	
	<b>F30</b> - 0-30	<b>H10</b> - 0-1,000			<b>1F5</b> - Vac-0							
	<b>F60</b> - 0-60	<b>H15</b> - 0-1,500			<b>3F0</b> - Vac-15							
	<b>G10</b> - 0-100	<b>H20</b> - 0-2,000			<b>6F0</b> - Vac-45							
	<b>G15</b> - 0-150	<b>H30</b> - 0-3,000			<b>1G0</b> - Vac-85							
	<b>G20</b> - 0-200	<b>H40</b> - 0-4,000			<b>1G5</b> - Vac-135							
	<b>G30</b> - 0-300	<b>H50</b> - 0-5,000			<b>2G0</b> - Vac-185							
	<b>G50</b> - 0-500	<b>H60</b> - 0-6,000			<b>3G0</b> - Vac-285							
Pressure Range <sup>1</sup> - bar											Electrical Connection	
	<b>A10</b> - 0-1	<b>B25</b> - 0-25			<b>Vac</b> = -1 bar						22CS Series	
	<b>A16</b> - 0-1.6	<b>B40</b> - 0-40			<b>1A0</b> - Vac-0						A - Industrial DIN Mating Connector Supplied	
	<b>A25</b> - 0-2.5	<b>B60</b> - 0-60			<b>1A6</b> - Vac-0.6						B - Industrial DIN Mating Connector Not Supplied	
	<b>A40</b> - 0-4	<b>C10</b> - 0-100			<b>2A5</b> - Vac-1.5						F - Cable Gland Metal IP67	
	<b>A60</b> - 0-6	<b>C16</b> - 0-160			<b>4A0</b> - Vac-3						2 - IP65 - NEMA4 Cable	
	<b>B10</b> - 0-10	<b>C25</b> - 0-250			<b>6A0</b> - Vac-5						D - IP65 - NEMA4 Cable	
	<b>B16</b> - 0-16	<b>C40</b> - 0-400			<b>1B0</b> - Vac-9						26CS Series	
					<b>1B6</b> - Vac-15						C - Fixed Plug Size 10-6 Mating Plug Not Supplied	
					<b>2B5</b> - Vac-24						G - Fixed Plug To DIN 43650 Mating Plug Supplied	
					<b>4B0</b> - Vac-39						M - Immersible Max. Depth 200 Meters	
Pressure Port <sup>2</sup>											1 - Fixed Plug Size 8-4 Mating Plug Not Supplied	
	<b>01</b> - G1/4 External	<b>08</b> - 1/8-27 NPT External									3 - Conduit Connector 1/2 NPT Ext. 1M Cable	
	<b>02</b> - 1/4-18 NPT External	<b>09</b> - G1/8 Internal									F - Cable Gland Metal IP67	
	<b>03</b> - G1/2 Manometer	<b>00</b> - G1/4 Internal										
	<b>04</b> - 7/16-20UNF to SAE J514	<b>0A</b> - R1/4 External										
	<b>05</b> - G1/4 Ext. Soft Seal											

Notes:

1. Additional Pressure Ranges are available. Please consult factory.
2. For other Pressure Ports, please consult factory.