

CANADA SENSORS TECHNOLOGY INC.



Manufacturer of Advanced Technology Pressure & Level Transmitters

PRESSURE TRANSMITTER – PROCESS 8 IS or IS/Ex HART™ Enabled Intrinsically Safe or Intrinsically Safe / Explosion Proof for Differential Pressure

Canada Sensors *intelligent* transmitters bring the latest technology to the pressure transmitter & related instrumentation market-place with self-diagnostic features which will maintain consistent accuracy throughout temperature and pressure scales.

SPECIFICATIONS & TECHNICAL DATA

- ✓ **HART™ Enabled** Two Wire 4-20 mA Output or Three Wire 1-5 vDC Output Pressure Transmitter
- ✓ **Intrinsically Safe or Intrinsically Safe / Explosion Proof** Process 8-IS Pressure Transmitters are scaled & have digitally mapped error correction throughout the pressure range
- ✓ **On-board RTD** Temperature compensation, through a mathematical formula, will occur at multiple levels throughout the range of the pressure transmitter offering highly accurate information.
- ✓ **Eliminate Output Drift**
- ✓ **316SS Silicone Oil Filled Sensors** Highly accurate and repeatable 0.075% full scale accuracy
- ✓ **Full Scale Accuracy 0.075%** Ingress Protection is minimum IP66
- ✓ **RoHS Compliant** Operating Differential Pressures from 0 - 2 PSID to 0 to 200 PSID, Line Pressure Ranges up to 1,000 PSI, Operating temperatures from -40C to + 95C
- ✓ **1 Year Conditional Warranty** Individually characterized sensor head - 316SS silicone oil filled, is standard
- ✓ **Powder Coated Canister** Standard 316SS process connection
- ✓ **Engraved Product Information** Multiple Electrical Connectors & Housings Available
- ✓ **Laser Welded** Multiple Process Connection Connection Threads Available in 316SS
- ✓ **Traceable Calibration Certificate Included**

Smart THROUGH and THROUGH
This transmitter packs a powerful punch
No drift. No set-up. It just works.

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Canadian Manufacturer of Advanced Technology
Level and Pressure Transmitters



Technical Specifications - Process 8 -IS

Performance

Accuracy:	0.075% Full Scale Output
Stability:	< 0.075% Full Scale Output
Temperature Range:	-40C to +95C Calibrated
Temperature Accuracy:	< 0.075% Full Scale Output
Pressure Cycles:	> 50 Million
Over Range Protection:	2 x Full Scale Output
Burst Pressure:	2.5 x Full Scale Output

NOTE: Over Range Protection and Burst Pressure shall be reduced to 1.5 x Full Scale Output for pressures exceeding 1,000 PSI due to thread limitations

Electrical Data

Excitation:	14-33 VDC (product accessories may alter excitation values)
Comms:	HART Protocol
Current Consumption:	3.6 mA
Zero Offset:	4 mA
Span Tolerance:	Range or Sensor with Turndown
Output Load:	500 OHMS
RTD Temperature:	On Board 100 ohm Platinum
Intrinsically Safe	
Intrinsically Safe / Explosion Proof	

Pollution Degree 4

Installation Category I

NOTE: An Ex Barrier is required for any connections that cross the boundary from an Ordinary Location (Non-Classified/Non-Hazardous) to a Classified (Hazardous) location

Environmental Data

Temperature

Operating:	-40C to +95C (product accessories may alter temperature ratings)
Storage:	-55C to +125C

Thermal Limits

Compensated Range:	As per Customer Specifications
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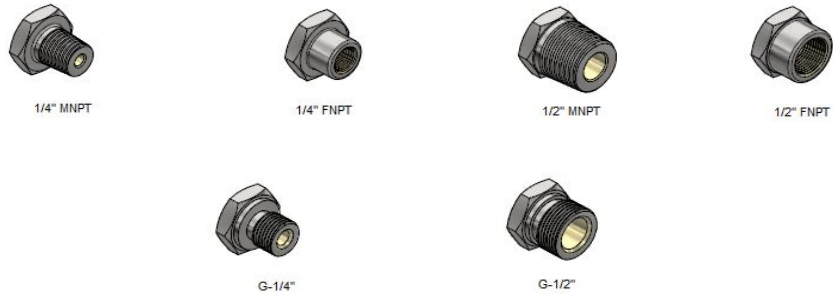
Physical Data

Sensor:	Monolithic Block NOT Available on this model
Vibration:	25gRMS from 20Hz to 2000Hz
Shock:	100g , half sine, 11mSec.
Sensor:	Hardened 316SS is standard on all Silicone Oil Filled or Gold Coated ASTM F519 Treatment
Vibration:	25gRMS from 20Hz to 2000Hz
Shock:	100g , half sine, 11mSec.
NOTE: Silicone Oil Filled Sensors are a factory option for low pressure	
Process Connection:	1/4" MNPT; 1/4" FNPT; 1/2" MNPT; 1/2" FNPT; G-1/4"; G-1/2"
NOTE: ANSI Regulations dictate that NPT Thread should not to exceed 8,000 PSI @ +125C	
Electrical Connection:	Intrinsically Safe: 316SS Weld-on: 1/2" MNPT Solid Conduit or w/ Aluminum XP Heads; Bendix Twist Connector 6 Pin (PTIH-10-6P), M12 Twist Connector 4 Pin Intrinsically Safe / Explosion Proof: 316SS Weld-on: 1/2" MNPT Solid Conduit or w/ Aluminum XP Heads

Product Weights:

	OZ	LBS	KG
Process 8-HYD w/ 316SS Weld-on 1/2" MNPT Solid Conduit Fitting (2 ft Lead Extension Wire); Bendix Twist Connector 6 Pin (PTIH-10-6P); M12 Twist Connector 4-Pin	23.5	1.5	0.67
Process 8-HYD w/ Aluminum XP Head (1/2" FNPT x 3) - 316SS Weld-on 1/2" MNPT Solid Conduit Fitting - Blank - No Window	58.5	3.7	1.66
Process 8-HYD w/ Aluminum XP Head (1/2" FNPT x 3) - 316SS Weld-on 1/2" MNPT Solid Conduit Fitting w/ 3 1/2 + Digits LCD Loop Powered Display	71.5	4.5	2.03
Process 8-HYD w/ Aluminum XP Head (1/2" FNPT x 3) - 316SS Weld-on 1/2" MNPT Solid Conduit Fitting w/ 5 Digits LCD Loop Powered Display	111.5	7.0	3.16
Process 8-HYD w/ Aluminum XP Head (1/2" FNPT x 1, 3/4" FNPT x 2) - 316SS Weld-on 1/2" MNPT Solid Conduit Fitting w/ 5 or 7 Digits LCD Loop Powered Flow Rate Totalizer	111.5	7.0	3.16

Process Connections:



Electrical Connections:



Product Accessories:

- Aluminum XP Head (1/2" FNPT x 3) - 316SS Weld-on 1/2" MNPT Solid Conduit Fitting - Blank - No Window
- Aluminum XP Head (1/2" FNPT x 3) - 316SS Weld-on 1/2" MNPT Solid Conduit Fitting w/ 3 1/2 + Digits LCD Loop Powered Display
- Aluminum XP Head (1/2" FNPT x 3) - 316SS Weld-on 1/2" MNPT Solid Conduit Fitting w/ 5 Digits LCD Loop Powered Display
- Aluminum XP Head (1/2" FNPT x 1, 3/4" FNPT x 2) - 316SS Weld-on 1/2" MNPT Solid Conduit Fitting w/ 5 or 7 Digits LCD Loop Powered Flow Rate Totalizer



Product Nomenclature

MODEL: Differential Pressure Transmitter - Process 8 - HYD - Intrinsically Safe

PN Example: A-B-C-D-E-F-G-H-I-J

08-HYD-01-01-04-051-02-08-02-01:

Process 8-HYD-IS Differential Transmitter, 4-20 mA, HART Enabled, Differential, 0 - 50 PSID, 1/4" FNPT, 316SS Wetted Parts, 316SS Weld-on 1/2" MNPT Solid Conduit Fitting with 4 ft Lead Extension Wire, No Treatment, 0.075% Accuracy

	A	B	C	D	E	F	G	H	I	J
Model	08-HYD-IS - Process 8 - HYD - Intrinsically Safe									
Output	01 - 4-20 mA 09 - 1-5 vDC									
Calibration Adjustment	01 - HART Enabled									
Pressure Reference	04 - Differential									
Pressure Range	046 - 0-2 PSID 047 - 0-5 PSID 048 - 0-10 PSID 049 - 0-15 PSID 050 - 0-30 PSID 051 - 0-50 PSID 052 - 0-100 PSID 053 - 0-150 PSID 054 - 0-200 PSID									
Process Connection	01 - 1/4" MNPT (Maximum Pressure 10,000 PSI) 02 - 1/4" FNPT (Maximum Pressure 10,000 PSI) 03 - 1/2" MNPT (Maximum Pressure 10,000 PSI) 04 - 1/2" FNPT (Maximum Pressure 10,000 PSI) 07 - G-1/4" (Maximum Pressure 5,000 PSI) 08 - G-1/2" (Maximum Pressure 5,000 PSI)									
Wetted Parts	02 - 316SS									
Electrical Connection	07 - 316SS Weld-on 1/2" MNPT Solid Conduit Fitting (2 ft Lead Extension Wire) 08 - 316SS Weld-on 1/2" MNPT Solid Conduit Fitting (4 ft Lead Extension Wire) 09 - 316SS Weld-on 1/2" MNPT Solid Conduit Fitting (6 ft Lead Extension Wire) 10 - 316SS Weld-on 1/2" MNPT Solid Conduit Fitting (10 ft Lead Extension Wire) 31 - Weld-on Bendix 6-Pin (PTIH-10-6P) - Aluminum 32 - M12 4-Pin 33 - Weld-on Bendix 6-Pin (PTIH-10-6P) - 316SS 35 - Aluminum XP Head (1/2" FNPT x 3) - 316SS Weld-on 1/2" MNPT Solid Conduit Fitting - Blank - No Window 38 - Aluminum XP Head (1/2" FNPT x 3) - 316SS Weld-on 1/2" MNPT Solid Conduit Fitting w/ 3 1/2 + Digits LCD Loop Powered Display 41 - Aluminum XP Head (1/2" FNPT x 3) - 316SS Weld-on 1/2" MNPT Solid Conduit Fitting w/ 5 Digits LCD Loop Powered Display 48 - Aluminum XP Head (1/2" FNPT x 1, 3/4" FNPT x 2) - 316SS Weld-on 1/2" MNPT Solid Conduit Fitting w/ 5 or 7 Digits LCD Loop Powered Flow Rate Totalizer									
Environmental Treatment	02 - No Treatment									
Accuracy	01 - 0.075 %									

MODEL: Differential Pressure Transmitter - Process 8-HYD - Intrinsically Safe / Explosion Proof

PN Example: A-B-C-D-E-F-G-H-I-J

08-HYD-IS/EX-01-01-04-051-02-02-08-02-01:

Process 8-HYD-IS/EX Differential Transmitter, 4-20 mA, HART Enabled, Differential, 0 - 50 PSID, 1/4" FNPT, 316SS Wetted Parts, 316SS Weld-on 1/2" MNPT Solid Conduit Fitting with 4 ft Lead, Extension Wire, No Treatment, 0.075% Accuracy

	A	B	C	D	E	F	G	H	I	J
Model										
08-HYD-IS/EX	-	Process 8 - Intrinsically Safe / Explosion Proof								
Output										
01	-	4-20 mA								
09	-	1-5 vDC								
Calibration Adjustment										
01	-	HART Enabled								
Pressure Reference										
04	-	Differential								
Pressure Range										
046	-	0 - 2 PSID								
047	-	0 - 5 PSID								
048	-	0 - 10 PSID								
049	-	0 - 15 PSID								
050	-	0 - 30 PSID								
051	-	0 - 50 PSID								
052	-	0 - 100 PSID								
053	-	0 - 150 PSID								
054	-	0 - 200 PSID								
Process Connection										
01	-	1/4" MNPT (Maximum Pressure 10,000 PSI)								
02	-	1/4" FNPT (Maximum Pressure 10,000 PSI)								
03	-	1/2" MNPT (Maximum Pressure 10,000 PSI)								
04	-	1/2" FNPT (Maximum Pressure 10,000 PSI)								
07	-	G-1/4" (Maximum Pressure 5,000 PSI)								
08	-	G-1/2" (Maximum Pressure 5,000 PSI)								
Wetted Parts										
02	-	316SS								
Electrical Connection										
09	-	316SS Weld-on 1/2" MNPT Ex d Solid Conduit Fitting (6 ft lead extension wire)								
35	-	Aluminum XP Head (1/2" FNPT x 3) - 316SS Weld-on 1/2" Ex d MNPT Solid Conduit Fitting - Blank - No Window								
38	-	Aluminum XP Head (1/2" FNPT x 3) - 316SS Weld-on 1/2" Ex d MNPT Solid Conduit Fitting w/ 3 1/2 + Digits LCD Loop Powered Display								
41	-	Aluminum XP Head (1/2" FNPT x 3) - 316SS Weld-on 1/2" Ex d MNPT Solid Conduit Fitting w/ 5 Digits LCD Loop Powered Display								
48	-	Aluminum XP Head (1/2" FNPT x 1, 3/4" FNPT x 2) - 316SS Weld-on 1/2" MNPT Ex d Solid Conduit Fitting w/ 5 or 7 Digits LCD Loop Powered Flow Rate Totalizer								
Environmental Treatment										
02	-	No Treatment								
Accuracy										
01	-	0.075 %								

E: Alternate Pressure Range Units

kPa

kPa	046 - kPa	-	0 - 15 kPaD
kPa	047 - kPa	-	0 - 35 kPaD
kPa	048 - kPa	-	0 - 70 kPaD
kPa	049 - kPa	-	0 - 100 kPaD
kPa	050 - kPa	-	0 - 200 kPaD
kPa	051 - kPa	-	0 - 350 kPaD
kPa	052 - kPa	-	0 - 700 kPaD
kPa	053 - kPa	-	0 - 1000 kPaD
kPa	054 - kPa	-	0 - 1400 kPaD

mBar

mBar	046 - mBar	-	0 - 150 mBarD
mBar	047 - mBar	-	0 - 350 mBarD
mBar	048 - mBar	-	0 - 700 mBarD
mBar	049 - mBar	-	0 - 1000 mBarD
mBar	050 - mBar	-	0 - 2000 mBarD
mBar	051 - mBar	-	0 - 3500 mBarD
mBar	052 - mBar	-	0 - 7000 mBarD
mBar	053 - mBar	-	0 - 10000 mBarD
mBar	054 - mBar	-	0 - 14000 mBarD

mm Hg

mm Hg	046 - mm Hg	-	0 - 100 mm HgD
mm Hg	047 - mm Hg	-	0 - 250 mm HgD
mm Hg	048 - mm Hg	-	0 - 500 mm HgD
mm Hg	049 - mm Hg	-	0 - 800 mm HgD
mm Hg	050 - mm Hg	-	0 - 1500 mm HgD
mm Hg	051 - mm Hg	-	0 - 2500 mm HgD
mm Hg	052 - mm Hg	-	0 - 5000 mm HgD
mm Hg	053 - mm Hg	-	0 - 8000 mm HgD
mm Hg	054 - mm Hg	-	0 - 10000 mm HgD

in H₂O (60° F)

in H ₂ O (60° F)	046 - in H ₂ O	-	0 - 60 in H ₂ OD (60° F)
in H ₂ O (60° F)	047 - in H ₂ O	-	0 - 150 in H ₂ OD (60° F)
in H ₂ O (60° F)	048 - in H ₂ O	-	0 - 300 in H ₂ OD (60° F)
in H ₂ O (60° F)	049 - in H ₂ O	-	0 - 400 in H ₂ OD (60° F)
in H ₂ O (60° F)	050 - in H ₂ O	-	0 - 800 in H ₂ OD (60° F)
in H ₂ O (60° F)	051 - in H ₂ O	-	0 - 1500 in H ₂ OD (60° F)
in H ₂ O (60° F)	052 - in H ₂ O	-	0 - 3000 in H ₂ OD (60° F)
in H ₂ O (60° F)	053 - in H ₂ O	-	0 - 4000 in H ₂ OD (60° F)
in H ₂ O (60° F)	054 - in H ₂ O	-	0 - 5000 in H ₂ OD (60° F)

mm H₂O (4° C)

mm H ₂ O (4° C)	046 - mm H ₂ O	-	0 - 1400 mm H ₂ OD (4° C)
mm H ₂ O (4° C)	047 - mm H ₂ O	-	0 - 3500 mm H ₂ OD (4° C)
mm H ₂ O (4° C)	048 - mm H ₂ O	-	0 - 7000 mm H ₂ OD (4° C)
mm H ₂ O (4° C)	049 - mm H ₂ O	-	0 - 10000 mm H ₂ OD (4° C)
mm H ₂ O (4° C)	050 - mm H ₂ O	-	0 - 20000 mm H ₂ OD (4° C)
mm H ₂ O (4° C)	051 - mm H ₂ O	-	0 - 35000 mm H ₂ OD (4° C)
mm H ₂ O (4° C)	052 - mm H ₂ O	-	0 - 70000 mm H ₂ OD (4° C)
mm H ₂ O (4° C)	053 - mm H ₂ O	-	0 - 100000 mm H ₂ OD (4° C)
mm H ₂ O (4° C)	054 - mm H ₂ O	-	0 - 140000 mm H ₂ OD (4° C)

in Hg (32° F)

in Hg (32° F)	046 - in Hg	-	0 - 5 in HgD(32° F)
in Hg (32° F)	047 - in Hg	-	0 - 10 in HgD(32° F)
in Hg (32° F)	048 - in Hg	-	0 - 20 in HgD(32° F)
in Hg (32° F)	049 - in Hg	-	0 - 30 in HgD(32° F)
in Hg (32° F)	050 - in Hg	-	0 - 30 in HgD(32° F)
in Hg (32° F)	051 - in Hg	-	0 - 100 in HgD(32° F)
in Hg (32° F)	052 - in Hg	-	0 - 200 in HgD(32° F)
in Hg (32° F)	053 - in Hg	-	0 - 300 in HgD(32° F)
in Hg (32° F)	054 - in Hg	-	0 - 400 in HgD(32° F)

Bar

Bar	046 - Bar	-	0 - 0.15 BarD
Bar	047 - Bar	-	0 - 0.35 BarD
Bar	048 - Bar	-	0 - 0.7 BarD
Bar	049 - Bar	-	0 - 1 BarD
Bar	050 - Bar	-	0 - 2 BarD
Bar	051 - Bar	-	0 - 3.5 BarD
Bar	052 - Bar	-	0 - 7 BarD
Bar	053 - Bar	-	0 - 10 BarD
Bar	054 - Bar	-	0 - 14 BarD

ata (kg/cm²)			
ata (kg/cm ²)	046 - ata	-	0 - 0.14 ata (kg/cm ²)D
ata (kg/cm ²)	047 - ata	-	0 - 0.35 ata (kg/cm ²)D
ata (kg/cm ²)	048 - ata	-	0 - 0.7 ata (kg/cm ²)D
ata (kg/cm ²)	049 - ata	-	0 - 1 ata (kg/cm ²)D
ata (kg/cm ²)	050 - ata	-	0 - 2.1 ata (kg/cm ²)D
ata (kg/cm ²)	051 - ata	-	0 - 3.5 ata (kg/cm ²)D
ata (kg/cm ²)	052 - ata	-	0 - 7 ata (kg/cm ²)D
ata (kg/cm ²)	053 - ata	-	0 - 10 ata (kg/cm ²)D
ata (kg/cm ²)	054 - ata	-	0 - 14 ata (kg/cm ²)D