

CANADA SENSORS TECHNOLOGY INC.



Manufacturer of Advanced Technology Pressure & Level Transmitters

CRN Approval ISO 9001:2015



LIQUID LEVEL TRANSMITTER – PROCESS 10 HART™ Enabled General Purpose Model

Submersible Pump Lift Station / Sludge Level Transmitter / Long Range Depth Transmitter

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.

FEATURES

- ✓ Eliminate Output Drift
- ✓ On-board RTD
- ✓ All 316SS Construction (Wetted Parts)
- ✓ IP 68 Rated PTFE Vent
- ✓ Circuit Protection RFI and EMI surge protection
- ✓ 316SS Breathable Encapsulated Wire Tubing (BEWT)
(Tubing Length from 12 inches (30 cm) to 9 miles (15 KM)
- Optional: Large 3" Non-clog 316SS Diaphragm c/w
Protective Cage for Heavy Slurry Applications,
Pipe Mounting Bracket,
Remote WIFI, 900 MHz Radio, LTE-M Cellular or Iridium
Satellite Monitoring System
(Real time information to your phone, computer or PLC)
- ✓ 3 Year Conditional Warranty (Serial Number Traceability)
- ✓ Laser Welded
- ✓ External Pressures to 15,000 PSI

Smart THROUGH and THROUGH

**This transmitter packs a powerful punch
No drift. No set-up. It just works.**

Contact Us:

sales@canadasensors.com
www.canadasensors.com

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Level and Pressure Transmitters**

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SPECIFICATIONS & TECHNICAL DATA

HART™ Enabled

Two Wire 4-20 mA Output Pressure Transmitter

Temperature compensation, through a mathematical formula, will occur at multiple levels throughout the range of the pressure transmitter offering highly accurate information.

The Process 10 transmitter has an optional on-board barometric calibration chip. This is a self-adjusting feature with zero drift at any altitude or day or night. The transmitter does not require any external adjustments.

Highly accurate and repeatable 0.075% to 0.25% (or better) full scale accuracy depending on conditions

Operating pressure ranges from 5 PSI and up

Digitally mapped error correction throughout the level range

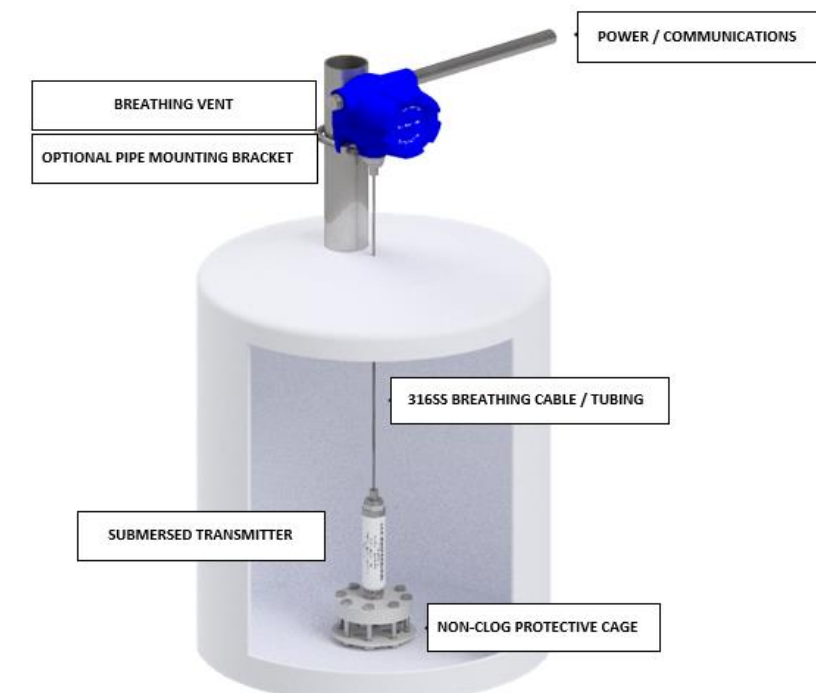
Individually characterized sensor head -316SS silicone oil filled sensor

Optional corrosion Inhibiting feature is available on the Process 10 model. This PTFE corrosion protection protects from ambient conditions such as UV rays, humidity, sand, sea-spray, hydrogen sulfide environments, and most chemicals. (PTFE is not available on 3" diaphragm model)

PTFE coating on the process connection provides protection from corrosive media

Multiple Electrical Connectors & Housings Available

316SS Process Connection Materials are standard



Technical Specifications

Performance	
Accuracy:	0.075 to 0.25% Full Scale Output depending on conditions
Stability:	0.075 to 0.25% Full Scale Output depending on conditions
Temperature Range:	-4C to +60C Calibrated
Temperature Accuracy:	0.075 to 0.25% Full Scale Output depending on conditions
Pressure Cycles:	n/a
Over Range Protection:	2 x Full Scale Output
Burst Pressure:	5 x Full Scale Output

Electrical Data	
Excitation:	14-33 VDC (product accessories may alter excitation values)
Comms:	HART Protocol
Current Consumption:	3.8 mA
Zero Offset:	4 mA
Span Tolerance:	Range or Sensor with Turndown
Output Load:	500 OHMS
Barometric Chip (optional):	Monitoring Range 88KPA (12.76 PSI) to 108 KPA (15.7 PSI)
RTD Temperature:	On Board 100 ohm Platinum

Pollution Degree 4
Installation Category I

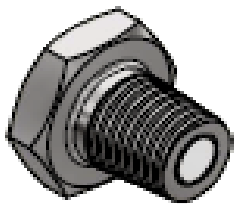
NOTE: An Ex Barrier is required for any connections that cross the boundary from an Ordinary Location (Non-Classified/Non-Hazardous) to a Classified (Hazardous) location

Environmental Data	
Temperature	
Operating:	-4C to +60C
Storage:	-55C to +125C
Thermal Limits	
Compensated Range:	-4C to +60C
Temp Comp Zero:	0.075 to 0.25% Full Scale Output @ +50C
Temp Comp Span:	0.075 to 0.25% Full Scale Output @ +50C

Physical Data	
Sensor:	PFAC-8 Treatment is standard on all Silicone Oil Filled 316SS, Inconel-718, Titanium, Hastalloy-276
Vibration:	25gRMS from 20Hz to 2000Hz
Shock:	100g , half sine, 11mSec.
NOTE: Silicone Oil Filled Sensors are standard for low pressure	
Process Connection:	1/4" MNPT Flushmount w/ Nose Cone or 316SS 3" Flush Non-clog Diaphragm w/protective cage
Electrical Connection:	1/4" Compression x 1/2" MNPT Bored Tubing Connector w/ BEWT; XP Enclosures (complete system)
Optional:	WIFI or LTE-M Cellular Wireless Remote Data Transmission

NOTE: 316SS Wetted Parts are the minimum requirement for NACE compliance

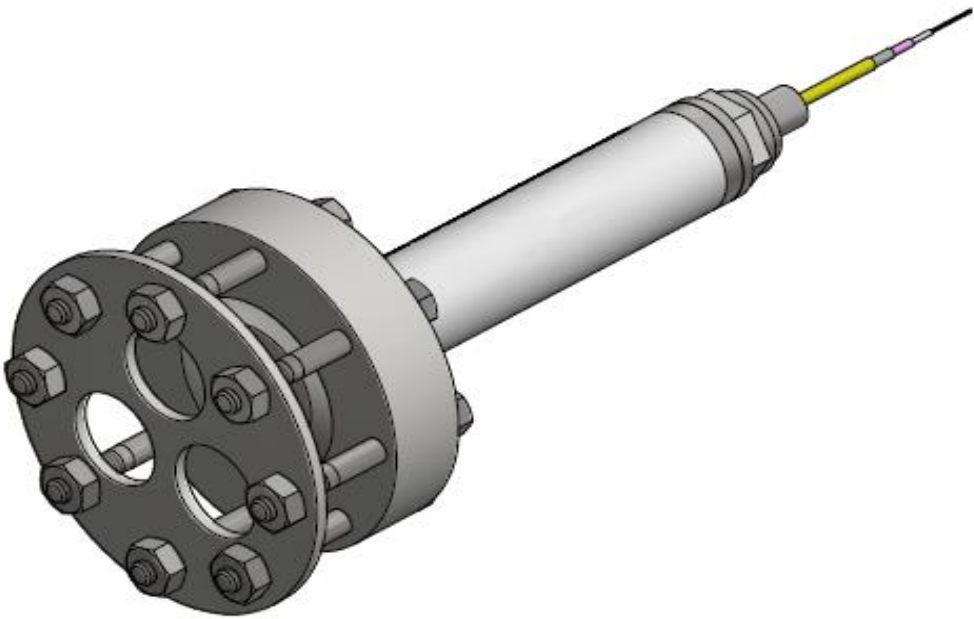
Process Connections:



1/4" MNPT FLUSHMOUNT



Nose Cone

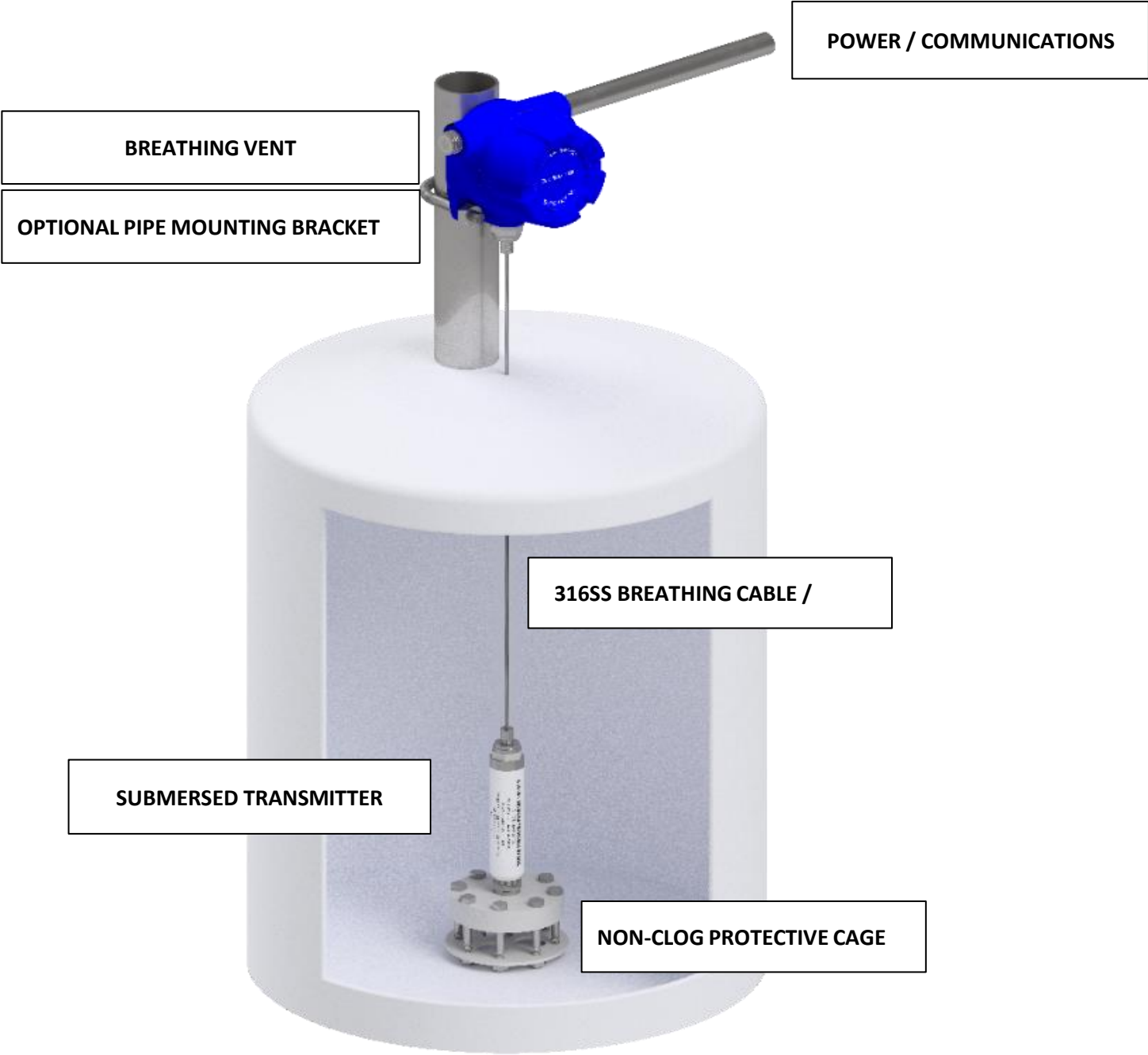


316SS 3" Flush Non-clog Diaphragm & Cage

Electrical Connections:



1/4" x 1/2" Bored Tubing Connector



Product Accessories:

- Aluminum XP Head (1/2" FNPT x 3) - Blank - No Window
- Aluminum XP Head (1/2" FNPT x 3) - w/ 3 1/2 + Digits LCD Loop Powered Display
- Aluminum XP Head (1/2" FNPT x 3) - w/ 5 Digit LCD Loop Powered Display



Product Nomenclature

MODEL: Liquid Level Transmitter - Process 10

PN Example: A-B-C-D-E-F-G-H-I-J-K-L-M-N

LL10-01-01-01-850-025-14-02-L08-01-01-01-02-02:

Process 10 Transmitter, 4-20 mA, HART Enabled, Gauge (PSIG), .850 Specific Gravity, 25 ft maximum liquid height, 1/2" MNPT Flushmount w/ 3" Flush Non-clog Diaphragm & Cage 316SS, 316SS Wetted Parts, 1/4"

Compression x 1/2" MNPT Bored Tubing Connector w/ 45 ft BEWT, Head - Blank No Window, No Mounting Bracket, No Monitoring, No Treatment, 0.25% Accuracy

	A	B	C	D	E	F	G	H	I	J	K	M	N
Model													
LL10	-	Process 10											
Output													
01	-	4-20 mA											
Calibration Adjustment													
01	-	HART Enabled											
Pressure Reference													
01	-	Gauge (PSIG)											

Specific Gravity (water 1,000 kg/m3 = 1)Specific gravity of a liquid is the "ratio of the density of the liquid - to the density of water at 4°C"

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1299	1.299
1300	1.300
9999	Specific Gravity - Other

Liquid Level - Maximum Height (ft)

001	1 ft
002	2 ft
003	3 ft
004	4 ft
005	5 ft
006	6 ft
007	7 ft
008	8 ft
009	9 ft
010	10 ft
011	11 ft
012	12 ft

013	13 ft
014	14 ft
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999	Custom Length

Process Connection

13 - 1/4" MNPT w/ Nose Cone

	14	-	1/2" MNPT w/ 3" Flush Non-clog Diaphragm & Cage 316SS (Maximum Pressure 1,500 PSI)							
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Wetted Parts

02	-	316SS
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Electrical Connection

L01	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 10 ft BEWT
L02	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 15 ft BEWT
L03	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 20 ft BEWT
L04	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 25 ft BEWT
L05	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 30 ft BEWT
L06	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 35 ft BEWT
L07	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 40 ft BEWT
L08	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 45 ft BEWT
L09	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 50 ft BEWT
L10	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 55 ft BEWT
L11	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 60 ft BEWT
L12	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 65 ft BEWT
L13	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 70 ft BEWT
L14	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 75 ft BEWT
L15	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 80 ft BEWT
L16	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 85 ft BEWT
L17	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 90 ft BEWT
L18	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 95 ft BEWT
L19	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 100 ft BEWT
L20	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 105 ft BEWT
L21	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 110 ft BEWT
L22	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 115 ft BEWT
L23	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 120 ft BEWT
L24	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ 125 ft BEWT
L99	-	1/4" Compression x 1/2' MNPT Bored Tubing Connector w/ BEWT Custom Length

Aluminum XP Enclosure

00	-	None
01	-	Aluminum XP Head (1/2" FNPT x 3) - Blank - No Window
02	-	Aluminum XP Head (1/2" FNPT x 3) - w/ 3 1/2 + Digits LCD Loop Powered Display
03	-	Aluminum XP Head (1/2" FNPT x 3) - w/ 5 Digits LCD Loop Powered Display

Mounting Bracket

01	-	None
02	-	2 " Pipe Mounting Kit

Environmental Treatment

01	-	PTFE Treatment (Sensor / Nose Cone only, not available on 3" Diaphragm Model)
02	-	No Treatment

Accuracy

01	-	0.075 Full Scale
02	-	0.25% Full Scale
04	-	0.10 %