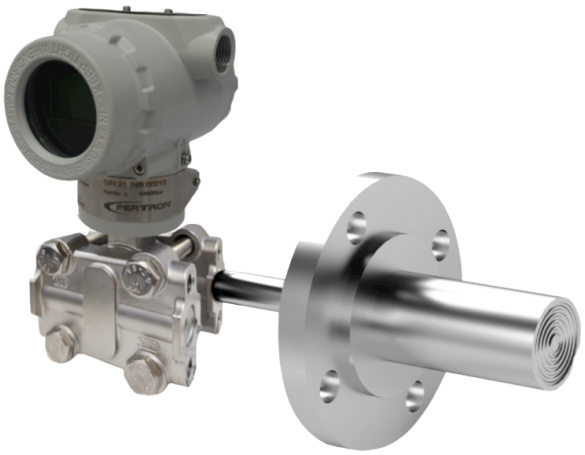
11301-L Smart Differential Pressure Level Transmitter

GENERAL

11301-l series is a digital flange pressure level transmitter designed for industrial pressure measurement applications.

The 11301-L can be configured to provide integrated solutions for a broad range of pressure and level measurement applications.



FEATURES

- ❑ Updating time of output current in 200 ms
- ❑ Improved performance, increased accuracy and greater stability
- ❑ Two years stability of 0.2%
- ❑ 0.1% accuracy
- ❑ Parameter setting by keypad directly
- ❑ 4-20 mA output plus direct digital HART communication
- ❑ Automatic zero calibration by press-button
- ❑ Explosion proof and weather proof housing

STANDARD SPECIFICATION

- Process Fluid: Liquid
- Application: Liquid Level, Differencial Pressure
- Measuring Range:
  0 - 1.3 KPa ~ 0 - 7.5 kPa (Minimum)
  0 - 345 KPa ~ 0 - 2068 KPa (Maximum)
- Accuracy : 0.1% of span
- Stability: +/- 0.2% of URL for 2 years
- Working Temperature : -25 to +250 °C
- Max. Pressure : 10 MPa (Dependent on flange rating)
- Material:
  Flange/Adapter: Carbon Steel / Stainless Steel 304 / 316
  Diaphragm: Stainless Steel 316L / Hastelloy B / Hastelloy C / Monel / Tantalum
- Bolts & Nuts : Carbon Steel / Stainless Steel 316
- Name / Tag Plate : Stainless Steel 304 / Stainless Steel 316
- Converter Housing : Low copper cast aluminum alloy with polyurethane paint
- Fill Fluid : Silicone / High Temperature Silicone / Fluorine Oil / Vegetable Oil
- Protection Class:
  IP65 (Standard)
  Intrinsically Safe EEx ia IIC T5 (Standard)
  Explosion proof Ex D IIB T5
- Display : 5 Digits programmable & 0-100% Bargraph
- Display Unit:
  Standard 22 different engineering unit
  5 Digits programmable for special unit
- Keypad : 3 internal keys for programming and output setting
- Current Output: 4 - 20 mA 2 wires with Hart signal
  Load: Rohm = (Vdc-9)*50
- Power Supply: 9 - 36 VDC
- Damping: 0 - 32 seconds
- Response Time: 200 mS
- Turn on Time: 2 Seconds with minimum damping
- Zero Calibration: Automatic zero calibration by press-button
- Cable Entry: 1/2" NPT (Female) / M20 Conduit Threads
- Temperature Effect: +/-0.18% ~ +/-0.5% of span per 20 °C
- EMI/RFI Effect: Follow SAMA PMC 33.1 from 20 to 1000MHz and for field strengths up to 30 V/m
- Process Connection:
  High Pressure Side : 1-1/2", 2", 3", 4" Flanges ANSI

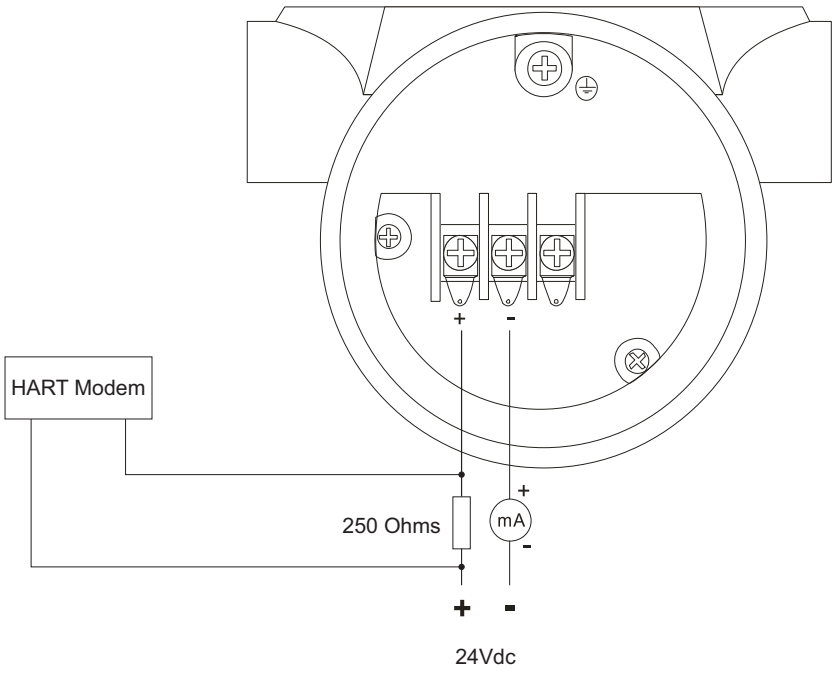
  Extended Diaphragm: 2", 4", 6" length

  Low Pressure Side: 1/4" - 18 NPT , 1/2" - 14 NPT (with adapter)
- Ambient Temperature : -25 to +80 °C
- Dimensions : 102 mm (W) * 188 mm (H) * 130 mm (D)
- Weight: 8 - 15 Kg

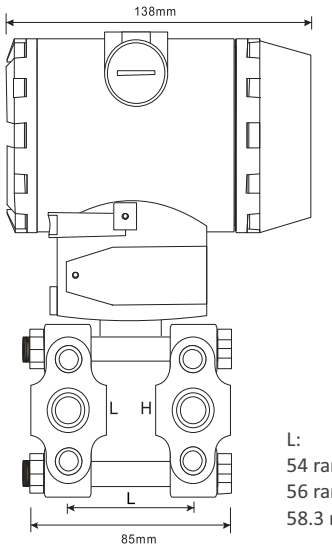
MEASURING RANGE

Range Code	Range Limits	
	Min. Span	Max. Span
4	0 ~ 6.2 KPa	0 ~ 37.4 KPa
	0 ~ 632.2 mmH2O	0 ~ 3813.7 mmH2O
	0 ~ 62 mbar	0 ~ 374 mbar
5	0 ~ 31 KPa	0 ~ 186.8 KPa
	0 ~ 3161 mmH2O	0 ~ 19048 mmH2O
	0 ~ 310 mbar	0 ~ 1868 mbar
6	0 ~ 117 KPa	0 ~ 690 KPa
	0 ~ 11930 mmH2O	0 ~ 70360 mmH2O
	0 ~ 1170 mbar	0 ~ 6900 mbar
7	0 ~ 345 KPa	0 ~ 2068 KPa
	0 ~ 35.18 mH2O	0 ~ 210.9 mH2O
	0 ~ 3.45 bar	0 ~ 20.68 bar

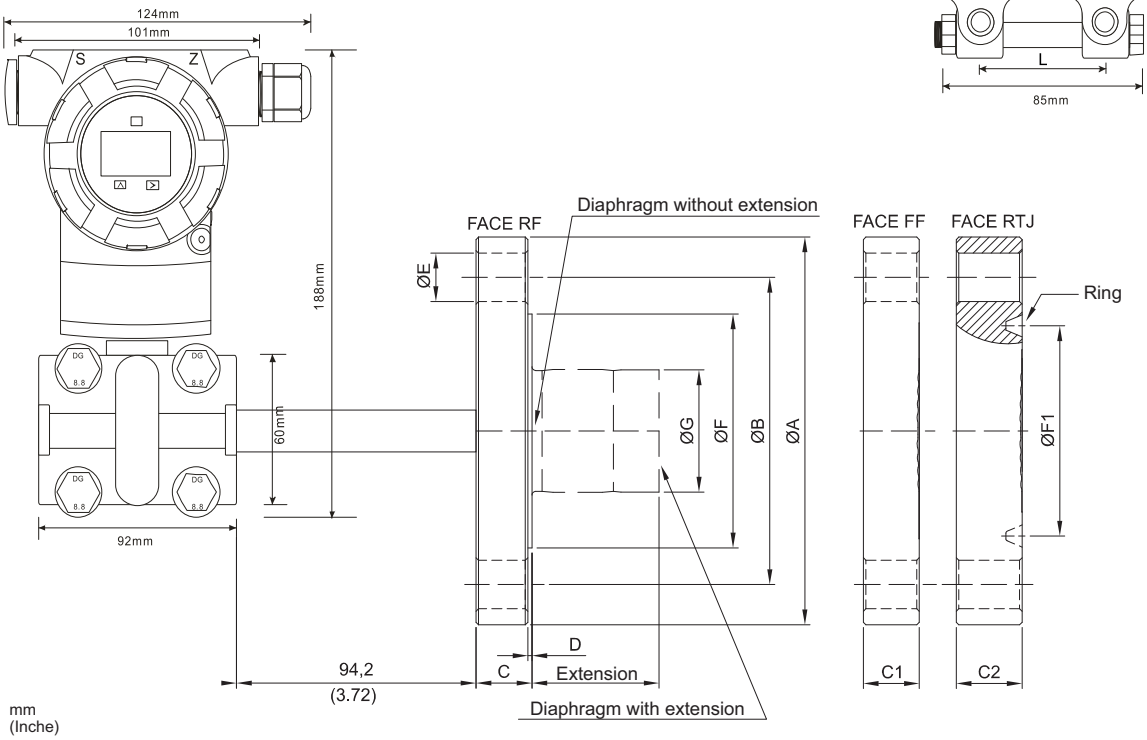
WIRING DIAGRAM



DIMENSIONS



L:
54 ranges 3 a 5
56 range 6
58.3 ranges 7



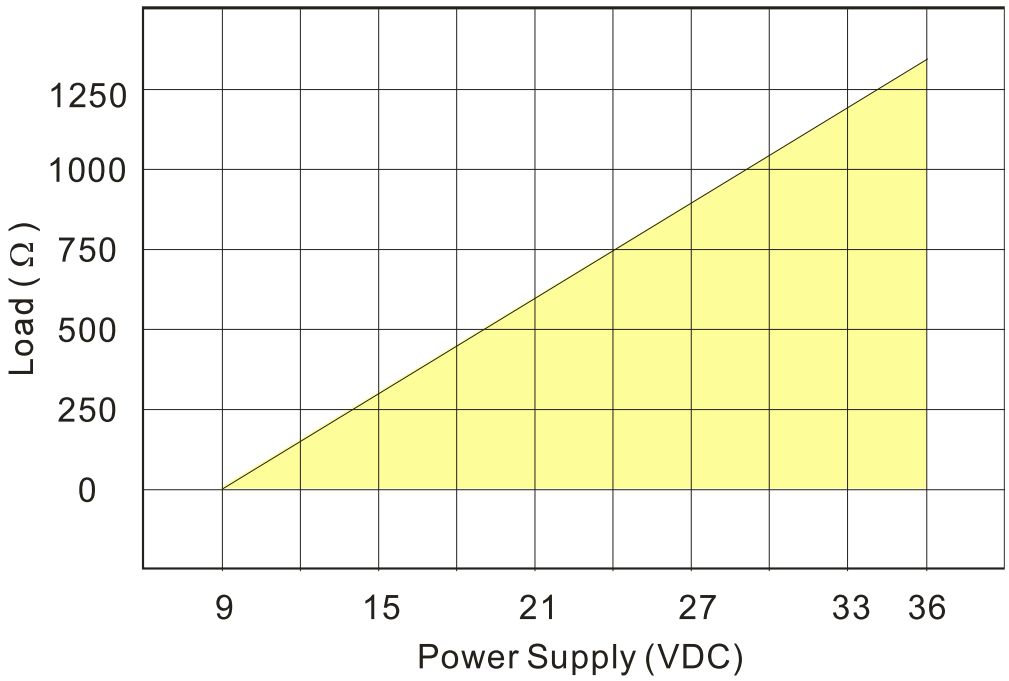
Extensions:
0 (Flush)
50mm
100mm
150mm
200mm

mm
(Inche)

ANSI-B 16.5 DIMENSÕES

DN	CLASSE	A	B	C (RF)	C1 (FF)	C2 (RTJ)	D (RF)	E	F (RF)	F1 (RTJ)	ANEL RTJ	G	N° FUROS
1.1/2"	150	127 (5)	98,6 (3.88)	20 (0.78)	19 (0.75)	24,4 (0.96)	1,6 (0.06)	16 (0.63)	73,2 (2.88)	65,1 (2.56)	R19	40 (1.57)	4
	300	155,4 (6.12)	114,3 (4.5)	21 (0.83)	21 (0.83)	27,4 (1.07)	1,6 (0.06)	22 (0.87)	73,2 (2.88)	68,3 (2.68)	R20	40 (1.57)	4
	600	155,4 (6.12)	114,3 (4.5)	29,3 (1.15)	29,3 (1.15)	29,3 (1.15)	6,4 (0.25)	22 (0.87)	73,2 (2.88)	68,3 (2.68)	R20	40 (1.57)	4
2"	150	152,4 (6)	120,7 (4.75)	22 (0.87)	20 (0.78)	25,9 (1.02)	1,6 (0.06)	19 (0.75)	91,9 (3.62)	82,6 (3.25)	R22	48 (1.89)	4
	300	165,1 (6.5)	127 (5)	22,8 (0.9)	22,8 (0.89)	30,8 (1.21)	1,6 (0.06)	19 (0.75)	91,9 (3.62)	82,6 (3.25)	R23	48 (1.89)	8
	600	165,1 (6.5)	127 (5)	32,3 (1.27)	32,3 (1.27)	32,3 (1.27)	6,4 (0.25)	19 (0.75)	91,9 (3.62)	82,6 (3.25)	R23	48 (1.89)	8
3"	150	190,5 (7.5)	152,4 (6)	24,4 (0.96)	24,4 (0.96)	30,7 (1.21)	1,6 (0.06)	19 (0.75)	127 (5)	114,3 (4.50)	R29	73 (2.87)	4
	300	209,5 (8.25)	168,1 (6.62)	29 (1.14)	29 (1.14)	36,9 (1.45)	1,6 (0.06)	22 (0.87)	127 (5)	123,8 (4.87)	R31	73 (2.87)	8
	600	209,5 (8.25)	168,1 (6.62)	38,7 (1.52)	38,7 (1.52)	40,2 (1.58)	6,4 (0.25)	22 (0.87)	127 (5)	123,8 (4.87)	R31	73 (2.87)	8
4"	150	228,6 (9)	190,5 (7.5)	24,4 (0.96)	24,4 (0.96)	30,7 (1.21)	1,6 (0.06)	19 (0.75)	158 (6.22)	149,2 (5.87)	R36	96 (3.78)	8
	300	254 (10)	200 (7.87)	32,2 (1.27)	32,2 (1.27)	40,2 (1.58)	1,6 (0.06)	22 (0.87)	158 (6.22)	149,2 (5.87)	R37	96 (3.78)	8
	600	273 (10.75)	215,9 (8.5)	45 (1.77)	45 (1.77)	46,5 (1.83)	6,4 (0.25)	25 (1)	158 (6.22)	149,2 (5.87)	R37	96 (3.78)	8

Supply Voltage VS Loop Load



MODEL SELECTION GUIDE

11301-L Series												
Example: 11301-L4A36N-6AS-SP-HTEX												
11301-L	X	X	X	X	X	-X	X	X	-X	X	-XX	
Pressure Range	4											0 ~ 6.2 KPa (Min.) ... 0 ~ 37.4 KPa (Max.)
	5											0 ~ 31 KPa (Min.) ... 0 ~ 186.8 KPa (Max.)
	6											0 ~ 117 KPa (Min.) ... 0 ~ 690 KPa (Max.)
	7											0 ~ 345 KPa (Min.) ... 0 ~ 2068 KPa (Max.)
Process Connection		A										ANSI 150#
		B										ANSI 300#
		Z										Other
Flange Rating			1									1-1/2"
			2									2"
			3									3"
			4									4"
Diaphragm Extension Length				0								Flush Diaphragm
				2								2" (50mm)
				4								4" (100mm)
				6								6" (150mm)
Diaphragm Material[1]					N							Stainless Steel 316L
					B							Hastelloy B
					C							Hastelloy C
					T							Tantalum
Flange Material						-N						Carbon Steel
						-4						Stainless Steel 304
						-6						Stainless Steel 316
Low Pressure Side Process Connection							N					1/4" - 18 NPT
							A					1/2" - 14 NPT(with Adapter)
							Z					Other
Bolts / Nuts Material								N				Carbon Steel
								S				Stainless Steel
Fill Fluid									-N			Silicone (Max. Temperature 130 °C)
									-S			HT Silicone (Max. Temperature 250 °C)
									-F			Fluorine (Max. Temperature 160 °C)
									-V			Vegetable Oil (Max. Temperature 130 °C)
Cable Entry										N		M20 Conduit Threads
										P		1/2" NPT (Female)
										Z		Other
Option											-NN	None
											-HT	Hart Signal (Compatible)
											-S6	Stainless Steel 316 Name Plate and Tag Plate
											-EX	Explosion Proof Ex D IIB T5
											-ZZ	Others

[1] In the case of special coating, indicate in the description. Ex; HALAR Coating

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