

11301-G/D Smart Gauge/Differential Pressure Transmitter

GENERAL

11301 series is a digital differential pressure transmitter designed for industrial pressure measurement applications.

The 11301 can be configured to provide integrated solutions for a broad range of pressure and flow 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

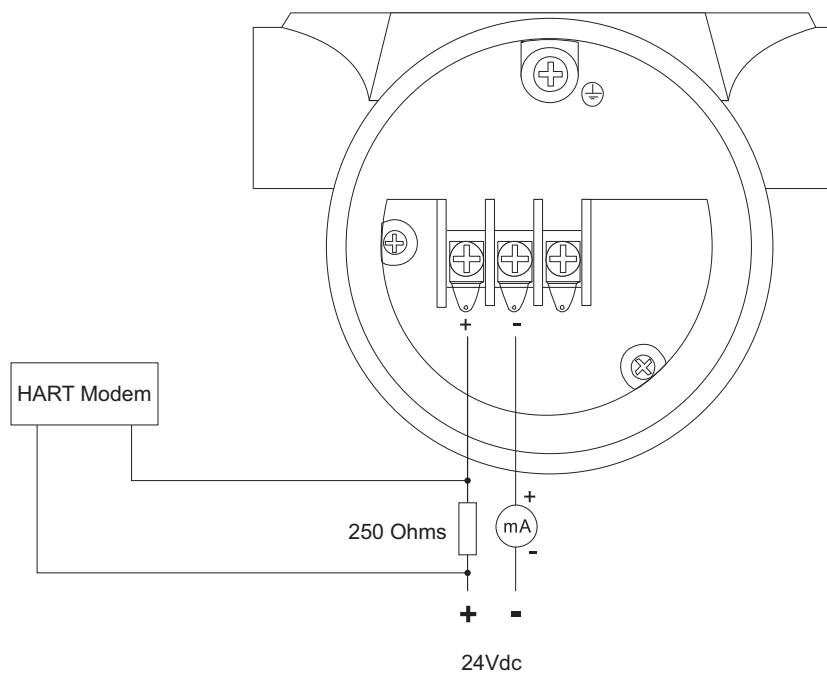
- Process Fluid: Liquid, Gas or Vapor
- Application: Gauge Pressure, Differential Pressure
- Measuring Range:
0 - 0.125 KPa ~ 0 - 1.5 KPa (Minimum)
0 - 1170 KPa ~ 0 - 6890 KPa (Maximum)
- Accuracy : 0.1% of span
- Stability: +/- 0.2% of URL for 2 years
- Working Temperature : -25 to +95 °C
- Max. Pressure : 25 MPa
- Material:
Flange/Adapter: Stainless Steel 304 / Stainless Steel 316
Drains/Vents: Stainless Steel 304 / Stainless Steel 316
Diaphragm: Stainless Steel 316L / Hastelloy B / Hastelloy C / Monel / Tantalum
Wetted O-Ring : Buna N / Viton / PTFE
Bolts & Nuts : Carbon Steel / Stainless Steel 316
Mounting Bracket : Carbon steel / Stainless Steel 304 / 316
Name / Tag Plate : Stainless Steel 304 / Stainless Steel 316
Converter Housing : Low copper cast aluminum alloy with polyurethane paint
Fill Fluid : Silicone / Fluorolube 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
- Mounting : Bracket on 2" Pipe
- Humidity Limit : 0 to 100% Relative Humidity
- Turn on Time : 2 Seconds with minimum damping
- Zero Calibration : Automatic zero calibration by press-button
- Cable Entry : M20 Conduit Threads / 1/2" NPT (Female)
- Temperature Effect : +/-0.18% ~ +/-0.5% of span per 20 °C
- Vibration Effect : +/-0.05% of URL per g to 200 Hz in any axis
- EMI/RFI Effect : Follow SAMA PMC 33.1 from 20 to 1000MHz and for field strengths up to 30 V/m
- Process Connection:
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 : 3.5 Kg



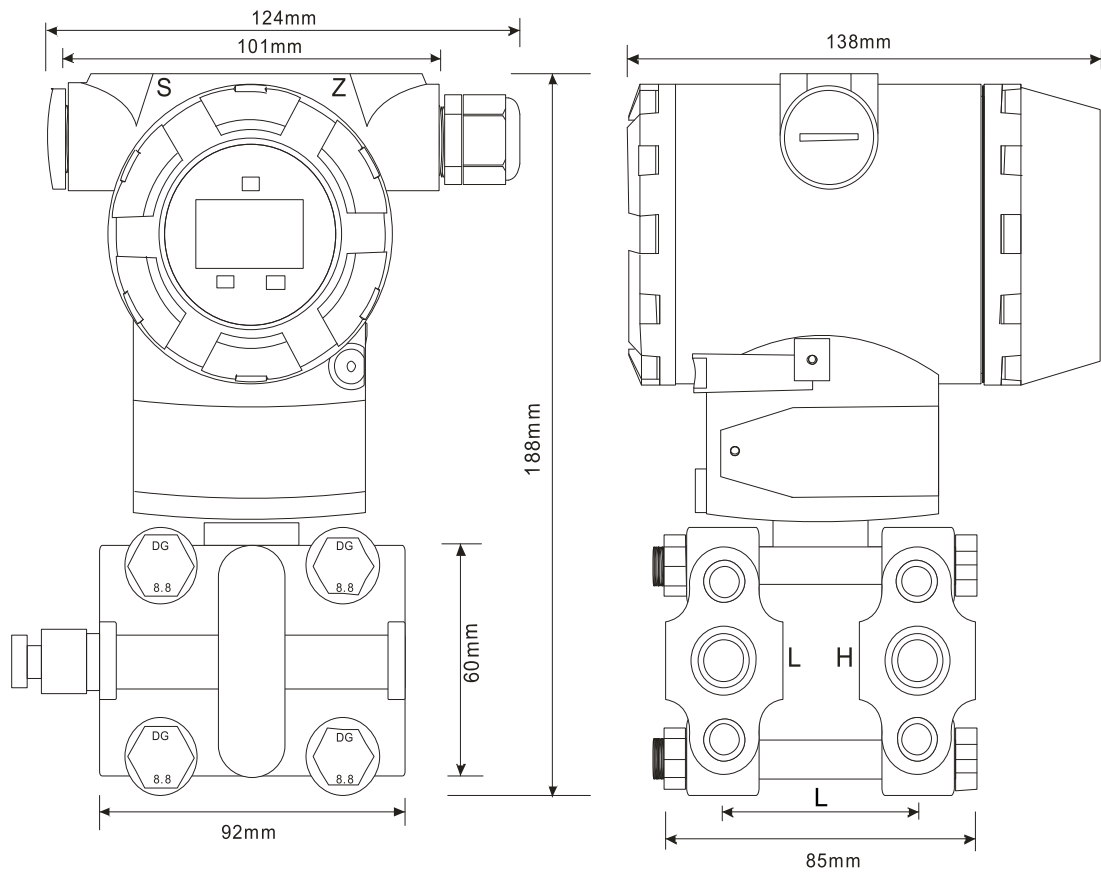
MEASURING RANGE

Range Code	Range Limits		Transmitter type	
	Min. Span	Max. Span	Differential Pressure	Gauge Pressure
2	0 ~ 0.125 KPa	0 ~ 1.5 KPa	◆	◆
	0 ~ 12.7 mmH2O	0 ~ 153 mmH2O		
	0 ~ 13 mbar	0 ~ 75 mbar		
3	0 ~ 1.3 KPa	0 ~ 7.5 KPa	◆	◆
	0 ~ 132.6 mmH2O	0 ~ 764.8 mmH2O		
	0 ~ 13 mbar	0 ~ 75 mbar		
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		
8	0 ~ 1170 KPa	0 ~ 6890 KPa		◆
	0 ~ 119.3 mH2O	0 ~ 702.6 mH2O		
	0 ~ 11.7 bar	0 ~ 68.9 bar		

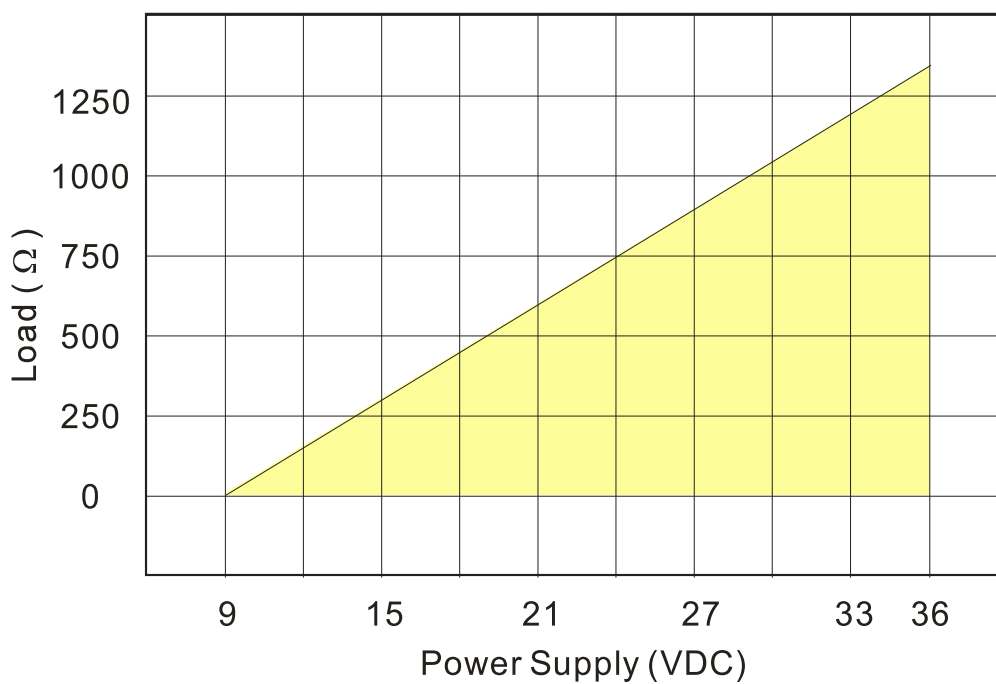
WIRING DIAGRAM



DIMENSIONS



Supply Voltage VS Loop Load



MODEL SELECTION GUIDE

Item	Code	Specification
11301-D		Differential Pressure Transmitter (Range 2 to 7)
11301-G		Gauge Pressure Transmitter (Range 2 to 8)
Measurement Range	2	0 ~ 1,5 Kpa
	3	0 ~ 7,5 Kpa
	4	0 ~ 37,4 Kpa
	5	0 ~ 186,8 Kpa
	6	0 ~ 690 Kpa
	7	0 ~ 2068 Kpa
	8	0 ~ 6890 Kpa
Output	S	4-20mA + HART Protocol, Linear output (¹)
Diaphragm Material / Fill Fluid	2	Stainless Steel 316L Silicone Oil
	3	Hastelloy C (Range > 3 Kpa)
	A	Stainless Steel 316L Fluorine Oil
Drain hole	B	Back of process flange or none
	U	Process flange side upper
	L	Process flange side lower
Wetted O-ring Material	7	Buna-N (NBR)
	6	Viton (FKM) (Temperature ≥ -20°C)
	5	Low Temperature Viton (FKM-GFLT)
Process Connection	H	1/4" NPT F
Maximum Pressure Limit	1	14 Mpa (4 Mpa for range 2)
	3	25 Mpa
Cable Entry	1	M20 x 1.5
	2	1/2 NPT
Mounting Bracket	B00	None
	B01	Tube-type Curved Bracket (carbon steel)
	B02	Wall mounting bracket (carbon steel)
	B03	Tube-type Flat Bracket (carbon steel)
	B04	Tube-type Curved Bracket (stainless steel)
	B05	Wall mounting bracket (stainless steel)
	B06	Tube-type Flat Bracket (stainless steel)
Optional	M3	LCD Display
	D1	Stainless steel drain valve or screw (2pcs)
	C1	1/2" NPT female waist flange (2sets)
	C12	1/2" NPT-M20x1.5-Ø14 pressure pipe (2sets)
	C2	M20 x 1.5 male thread T joint (2sets)
	C21	M20 x 1.5 T joint - Ø14 pressure pipe (2sets)
	d	Intrinsically safe type, Flameproof (Exd IIC T4~T6)
	i	Intrinsically safe (Exia IIC T4~T6)
	K1	Degreasing treatment

¹ Square root output (Range ≥ 5Kpa)



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