

SMART DIFFERENTIAL PRESSURE TRANSMITTER

DIFFERENTIAL TYPE



IPS-PT-16

GENERAL

IPS-PT-16 series is a digital differential pressure transmitter designed for industrial pressure measurement applications. The IPS-PT-16 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 0.1%
- 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	Display	: 5 Digits programmable & 0-100% Bargraph
Application	: Absolute Pressure, Gauge Pressure, Differential Pressure	Display Unit	: Standard 22 different engineering unit 5 Digits programmable for special unit
Measuring Range	: 0 - 0.16 kPa ~ 0 - 1.0 kPa (Minimum) : 0 - 4.0 MPa ~ 0 - 20.0 MPa (Maximum)	Keypad	: 3 internal keys for programming and output setting
Turndown Ratio	: 100 : 1	Current Output	: 4 - 20 mA 2 wires with Hart signal (Compatible) ohm=(Vdc-9)*50
Accuracy	: 0.1%	Power Supply	: 9 - 36 VDC
Stability	: +/-0.2% of URL for 2 years Load:R	Damping	: 0 - 32 seconds
Working Temperature	: -25 to +95 °C	Response Time	: 200 ms
Max. Pressure	: 40 MPa	Mounting	: Bracket on 2" Pipe
Material		Humidity Limit	: 0 to 100% Relative Humidity
Flange/Adapter	: Stainless Steel 304 / Stainless Steel 316	Turn on Time	: 2 Seconds with minimum damping
Drains/Vents	: Stainless Steel 304 / Stainless Steel 316	Zero Calibration	: Automatic zero calibration by press-button
Diaphragm	: Stainless Steel 316L / Hastelloy B / Hastelloy C / Monel / Tantalum	Cable Entry	: M20 Conduit Threads / 1/2" NPT (Female)
Wetted O-Ring	: Buna N / Viton / PTFE	Temperature Effect	: +/-0.18% ~ +/-0.5% of span per 20 °C
Bolts & Nuts	: Carbon Steel / Stainless Steel 316	Vibration Effect	: +/-0.05% of URL per g to 200 Hz in any axis
Mounting Bracket	: Carbon steel / Stainless Steel 304 / 316	EMI/RFI Effect	: Follow SAMA PMC 33.1 from 20 to 1000 MHz and for field strengths up to 30 V/m
Name / Tag Plate	: Stainless Steel 304 / Stainless Steel 316	Process Connection	: 1/4" - 18 NPT : 1/2" - 14 NPT(with adapter)
Converter Housing	: Low copper cast aluminum alloy with polyurethane, light blue paint	Ambient Temperature	: -25 to +80 °C
Fill Fluid	: Silicone / Fluorine Oil	Dimensions	: 102 mm (W) * 188 mm (H) * 130 mm (D)
Protection Class	: IP65 (Standard) : Intrinsically Safe EEx ia IIC T5 (Standard) : Explosion proof Ex D IIB T5	Weight	: 3.5 Kg



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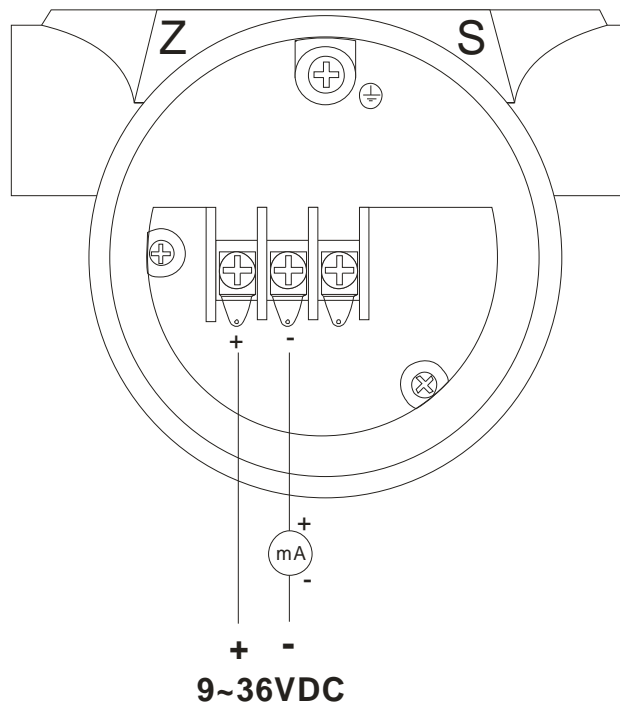
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CIN : U52399MH2021PTC368555

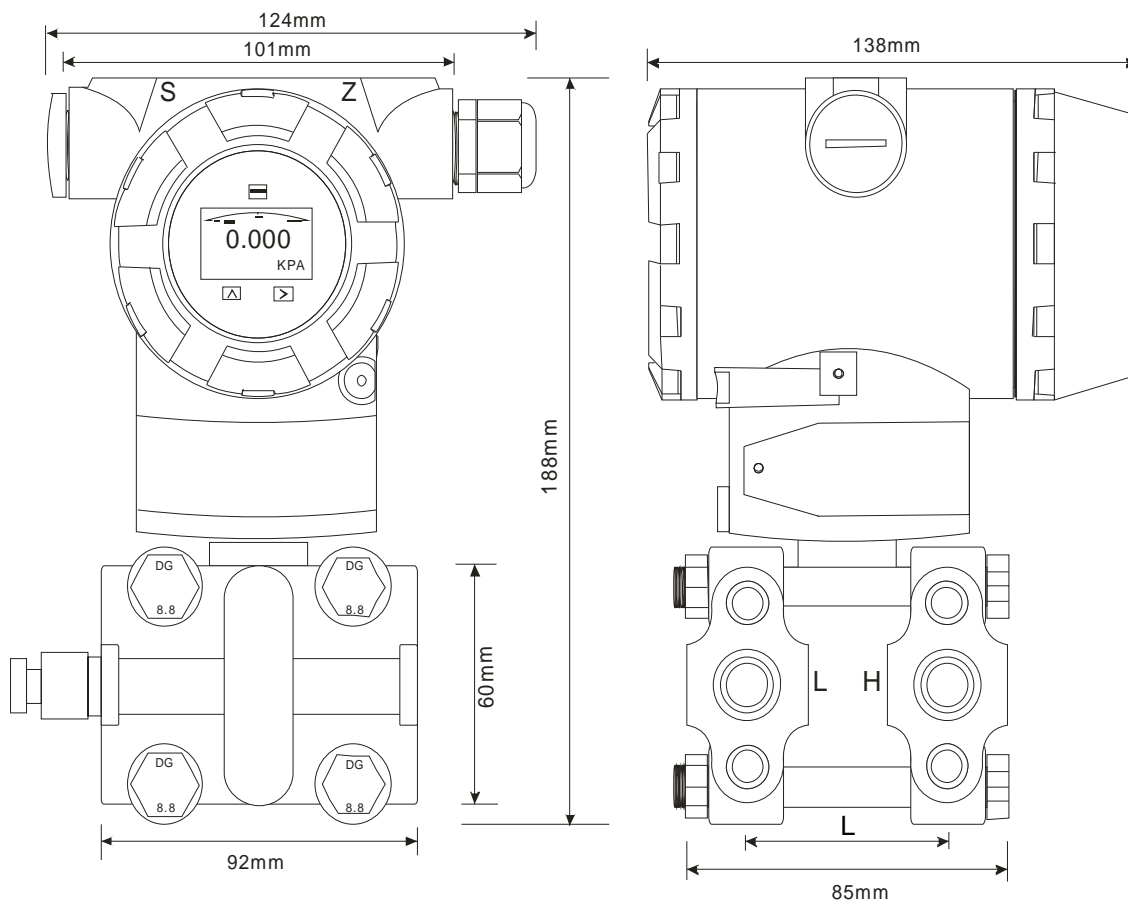
MEASURING RANGE

Range Code	Pressure Range				Transmitter		
	Low Range	High Range	Low Range	High Range	Differential Pressure	Gauge Pressure	Absolute Pressure
2	0 - 0.16 kPa	0 - 1.0 kPa	0 - 16.32 mmH2O	0 - 102.0 mmH2O	◆	◆	
	0 - 1.6 mbar	0 - 10 mbar	0 - 0.6423 InH2O	0 - 4.015 InH2O			
	0 - 0.023 psi	0 - 0.145 psi	0 - 0.001 Kg/cm2	0 - 0.010 Kg/cm2			
3	0 - 1.0 kPa	0 - 6.0 kPa	0 - 102.0 mmH2O	0 - 611.82 mmH2O	◆	◆	
	0 - 10 mbar	0 - 60 mbar	0 - 4.015 InH2O	0 - 24.088 InH2O			
	0 - 0.145 psi	0 - 0.87 psi	0 - 0.010 Kg/cm2	0 - 0.061 Kg/cm2			
4	0 - 6.0 kPa	0 - 40 kPa	0 - 611.82 mmH2O	0 - 4078 mmH2O	◆	◆	◆
	0 - 60 mbar	0 - 400 mbar	0 - 24.088 InH2O	0 - 160.6 InH2O			
	0 - 0.87 psi	0 - 5.802 psi	0 - 0.061 Kg/cm2	0 - 0.408 Kg/cm2			
5	0 - 40 kPa	0 - 200 kPa	0 - 4.079 MH2O	0 - 20.39 MH2O	◆	◆	◆
	0 - 400 mbar	0 - 2000 mbar	0 - 160.6 InH2O	0 - 802.9 InH2O			
	0 - 5.802 psi	0 - 29.0 psi	0 - 0.408 Kg/cm2	0 - 2.039 Kg/cm2			
6	0 - 160 kPa	0 - 1000 kPa	0 - 16.32 MH2O	0 - 101.97 MH2O	◆	◆	◆
	0 - 1.6 bar	0 - 10 bar	0 - 642.3 InH2O	0 - 4014 InH2O			
	0 - 23.21 psi	0 - 145 psi	0 - 1.632 Kg/cm2	0 - 10.197 Kg/cm2			
7	0 - 400 kPa	0 - 2500 kPa	0 - 40.79 MH2O	0 - 254.9 MH2O	◆	◆	◆
	0 - 4.0 bar	0 - 25 bar	0 - 1605 InH2O	0 - 10036 InH2O			
	0 - 58.02 psi	0 - 362.6 psi	0 - 4.079 Kg/cm2	0 - 25.49 Kg/cm2			
8	0 - 1.6 MPa	0 - 8.0 MPa	0 - 163.1 MH2O	0 - 815.76 MH2O		◆	
	0 - 16 bar	0 - 80 bar	0 - 6423.4 InH2O	0 - 32117 InH2O			
	0 - 232.1 psi	0 - 1160.3 psi	0 - 16.32 Kg/cm2	0 - 81.578 Kg/cm2			
9	0 - 4.0 MPa	0 - 20 MPa	0 - 407.9 MH2O	0 - 2039.4 MH2O		◆	
	0 - 40 bar	0 - 200 bar	0 - 16059 InH2O	0 - 80292.6 InH2O			
	0 - 580.2 psi	0 - 2901 psi	0 - 40.79 Kg/cm2	0 - 203.94 Kg/cm2			

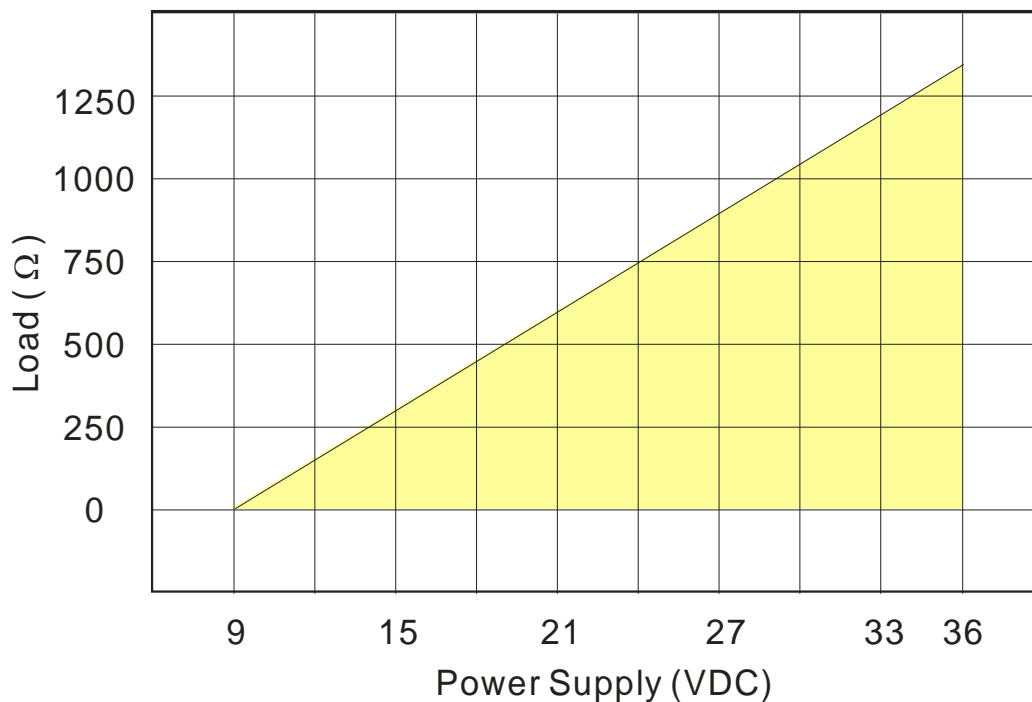
WIRING DIAGRAM



DIMENSIONS



Supply Voltage VS Loop Load



HOW TO ORDER

BASIC MODEL

MEASURING RANGE

2	0-0.1~1.5 Kpa	5	0~186.8 Kpa	8	0~6890 Kpa
3	0~7.5 Kpa	6	0~690 Kpa	9	0~20680 Kpa
4	0~37.4 Kpa	7	0~2068 Kpa		

OUTPUT

S	4-20mA, HART Protocol, Linear output
J	4-20mA, HART Protocol, Square root output(Range≥5kpa)

DIAPHRAGM MATERIAL / FILLING FLUID

2S	Stainless Steel 316L	Silicone Oil	4S	Stainless Steel 316L	Fluorine oil
3H	Hastelloy C(range >3Kpa)	Silicone Oil			

DRAIN HOLE

B	Back of process flange or none	U	Process flange side upper	L	Process flange side lower
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WETTED O-RING MATERIAL

5	Low Temperature Viton (FKM-GFLT)	6	Viton (FKM) (Temperature ≥-20°C)	7	Buna-N (NBR)
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PROCESS CONNECTION

H	1/4" NPT F
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MAXIMUM PRESSURE LIMIT

1	14 Mpa(4Mpa for range 2)	3	(7Mpa for range 3) 25 Mpa	5	32 Mpa
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CABLE ENTRY

1	M20*1.5
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MOUNTING BRACKET

B00	None	B04	Tube-type Curved Bracket (stainless steel)
B01	Tube-type Curved Bracket (carbon steel)	B05	Wall mounting bracket (stainless steel)
B02	Wall mounting bracket (carbon steel)	B06	Tube-type Flat Bracket (stainless steel)
B03	Tube-type Flat Bracket (carbon steel)		

OPTIONAL

D	Intrinsically safe type, Flameproof (Exd IIC T4~T6)	M3	LCD display
I	Intrinsically safe (Exia IIC T4~T6)	K1	Degreasing treatment
D1	Stainless steel drain valve or screw (2pcs)	C12	1/2" NPT-M20*1.5-Φ14 pressure pipe (2sets)
C1	1/2" NPT female waist flange (2sets)	C21	M20*1.5 T joint -Φ14 pressure pipe (2sets)
C2	M20*1.5 male thread T joint (2sets)		

IPS-PT-16

X

X

XX

X

X

X

X

X

XXX

XXX

**MATERIAL TEST CERTIFICATE WILL BE PROVIDED ONLY FOR WETTED PARTS WITH CHEMICAL COMPOSITION TESTING.FOR OTHERS PLEASE CONTACT FACTORY.

Note: Specifications and dimensions given in this catalogue the state of engineering at the time of printing. Modifications may take place and material specified may be replaced by others without prior notice.



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