

# PRESSURE TRANSMITTER FLUSH DIAPHRAGM TYPE

Food and Beverage Industry



IPS-PT-11



## FEATURES

- Measuring ranges from 100mbar to 250bar
- Absolute, gauge and sealed gauge
- Accuracy:  $\pm 0.5\%$  FSO,  $\pm 0.2\%$  FSO (Optional)
- Calibrated and temperature compensated
- Flush diaphragm construction
- Piezoresistive pressure sensor design
- Variety of Pressure & Electrical connections
- Output 4...20mA, 0...10V, 0...5V and ModBus RS485

## PRODUCT OVERVIEW

IPS-PT-11 is made from high-quality silicon piezoresistive chip. All process connections of the flush diaphragm pressure transmitter are made of stainless steel, fully welded and isolate the process medium from the pressure measuring instrument via a positive seal. The IPS-PT-11 is precision engineered to fit food, pharmaceutical and chemical liquid pressure measurement. A wide range of process connection and electrical connection options are available to meet almost requirement.

## APPLICATIONS

- Process Control System
- Food and beverages Industries
- Pharmaceutical Industries
- Dairy Processing Industries
- Paper & Pulp Industries

## STANDARD PRESSURE RANGE

Nominal pressure	gauge	sealed gauge	absolute
-1...0bar	•		
0...0.1bar	•		
0...0.2bar	•		
0...0.35bar	•		•
0...0.7bar	•		•
0...1bar	•		•
0...1.6bar	•		
0...2.5bar	•		•
0...4bar	•		•
0...6bar	•		•
0...10bar	•	•	•
0...16bar	•	•	•
0...25bar	•	•	
0...60bar		•	
0...100bar		•	
0...250bar		•	

Other pressure ranges available. Please consult the factory.



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CIN : U52399MH2021PTC368555



## Performance and Specifications

Parameter	Value		Units	Notes
<b>General</b>				
Pressure Range	0-1, ..., 100		bar	1bar=14.5psi
Over Pressure	1.5 x FS		bar	
<b>Environmental</b>				
Operating Temperature Range	-20to+150(standard), -20to+180(Optional)		°C	-4 °F to 185 °F
Compensated Temperature Range	-10 to +70		°C	14 °F to 158 °F
Storage Temperature Range	-40 to +125		°C	-40 °F to 257 °F
Vibration	10		g	20 to 2000Hz
Shock	100		g	10 ms
Cycles	10x10 <sup>5</sup>		Cycles	

<b>Electrical</b>					
Output Signal	4...20mA	0.....5 Vdc	1.....5 Vdc	0.....10Vdc	0.5.....4.5 Vdc (ratiometric)
Power Supply(Vs)	12....36Vdc	12....36Vdc	12....36Vdc	15....36Vdc 5V	5 Vdc
Load Resistance	<(Vs-12)/0.02A (For current output), >10kΩ(For voltage output)				
Insulation Resistance	100MΩ @50Vdc				

<b>Physical Specifications</b>	
Media Compatibility	All media compatible with 316L stainless steel
Housing	316 stainless steel, Die cast aluminium flameproof Exd as per IS/IEC 60079-1:2014
Diaphragm (Wetted Part)	316L stainless steel
Seal Ring	Viton or NBR
Oil Filling	Silicon Oil
Protection	IP65(Standard), IP67 (Only for flameproof enclosure)
Net Weight	Approx. 285g

Parameter	Minimum	Typical	Maximum	Units	Notes
<b>Performance</b>					
Accuracy	0.1	0.2	0.5	% FSO	1, 2
Temp Coeff - Zero		± 1.0	± 1.5	% FSO	3
Temp Coeff - Span		± 1.0	± 1.5	% FSO	3
Long-Term Stability		± 0.2	± 0.3	% FSO/year	1

## Process Indicator

Notes:

1. All values measured at 25°C(77°F)
2. Including non-linearity, hysteresis and repeatability.
3. -10°C to 70°C(14°F to 158°F) with reference to 25°C(77°F).

The listed specifications and dimensions are subject to change without prior notice.

Dimension: 65 x 45 x 45 mm  
 Display: 4 Digit 7 Segment  
 Display resolution: 1999 to 9999  
 Input: 4-20mA  
 Accuracy: mA : 0.5% of span  
 Enclosure: ABS



Connector DIN43650	Cable outlet	
	<b>2-wire(current)</b>	<b>3-wire(voltage)</b>
	Supply+ 1	1
	Signal+ 2	3
	Gnd -	2
	<b>2-wire(current)</b>	<b>3-wire(voltage)</b>
	Supply+ red	red
	Signal+ black	green
	Gnd -	black

Connector M12x1(4-pin)	Connection For Flameproof Enclosure	
	<b>2-wire(current)</b>	<b>3-wire(voltage)</b>
	Supply+ 1	1
	Signal+ 2	3
	Gnd -	2
	Power Supply	
	1 = Input (+) 12...36VDC	
	2 = Output (-) 4-20mA	
	3 = Gnd	



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## Electrical Connection

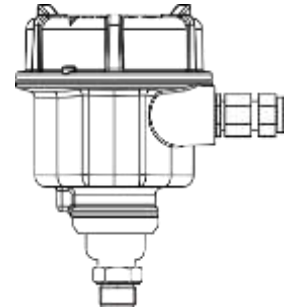
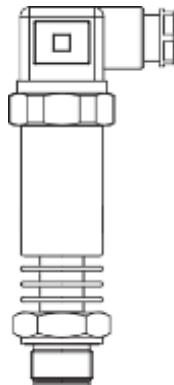
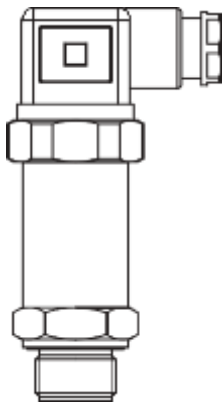
Connector DIN43650  
Operating Temperature Range  
-40 to +85 °C

Connector DIN43650  
Operating Temperature Range  
-40 to +150 °C

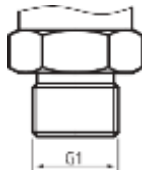
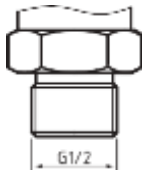
Cable outlet with PVC-cable

M12X2, 4-pin

With Flameproof Enclosure



## Mechanical Connection



G1/2

G1

## Ordering Information

IPS-PT-11 2500 G 1 G1 IX D 01			
<b>MODEL FAMILY</b>			<b>ACCURACY</b>
IPS-PT-11 Pressure Transmitter (Flush Diaphragm Type)			01 = 0.5% FS
			02 = 0.2% FS (Optional)
<b>PRESSURE RANGE</b>			<b>ELECTRICAL CONNECTION</b>
N001 = -1...0bar	0040 = 0 - 4 Bar	1000 = 0 - 100 Bar	D = Connector DIN43650
0001 = 0...0.1bar	0060 = 0 - 6 Bar	1600 = 0 - 160 Bar	C = Cable outlet with PVC-cable,length=1.5m
0003 = 0...0.35bar	0100 = 0 - 10 Bar	2500 = 0 - 250 Bar	M = M12x1, 4-pin
0007 = 0...0.7bar	0160 = 0 - 16 Bar	PRS = Customized range	HAX = With Flameproof Enclosure as per IS/IEC 60079-1:2014; suitable for gas group IIC, T6
0010 = 0...1bar	0250 = 0 - 25 Bar		<b>INDICATOR</b>
0016 = 0 - 1.6 Bar	0350 = 0 - 35 Bar		IX = Without Indicator
0025 = 0 - 2.5 Bar	0600 = 0 - 60 Bar		I = With Indicator
<b>PRESSURE TYPE</b>			<b>MECHANICAL CONNECTION</b>
G = Gauge			G2 = G ½" (M)
A = Absolute Gauge			G = G 1" (M)
S = Sealed Gauge			Nx = Customized
<b>OUTPUT SIGNAL</b>			
1 = 4 - 20 mA			
2 = 1 - 5 Vdc			
3 = 0 - 5 Vdc			
4 = 0 - 10 Vdc			
5 = 0.5...4.5(ratiometric)			
6 = RS 485			

Due to continuous development of our products technical information's are subject to change.

Please ensure the compatibility between the measured medium and the contacting part of the product when placing an order.

IPSPL reserves the right to make any change in this datasheet without notice. The information provided is believed to be accurate and reliable as of this product sheet. Contact factory for custom configurations not shown