TECHNOLOGY

HOLYKELL®

HPT700

PRESSURE
•DATASHEET•

1. Pressure Measurement   2. Level Measurement   3. Temperature Measurement
4. Flow Measurement   5. Display & Control Instruments
6.Wireless Monitoring System   7.Velocity Measurement

HPT 700 Series

Standard Industrial
Differential Pressure Transducers

Applications

- Process Controls
- Tank Level Measurement
- Filter Performance Monitoring
- Corrosive Fluids and Gas Measurement Systems
- Flow Measurement with Pitot Tubes
- Orifice Plates and Mass Flow Meters
- Static Pressure Measurement and Control
- Combustion Chambers and Clean Rooms

Features

- Precision Micro-Machined Silicon Core
- Explosion Proof and Non-Incentive Available
- High Stability, Low Drift
- 316L Welded Stainless-Steel Construction
- Premium Temperature Performance
- Broad Compensated Temperature Range
- Durable, 1 million Cycle Life
- Ruggedness with Secondary Containment

Ex TÜVRheinland RoHS CE

Profiles

HPT700 series differential pressure transducers can measure the differential pressure of liquids or gases, for wide range of general purpose and industrial applications. Get all the great performance characteristics of the micro-machined silicon transducers in these 316L stainless steel differential pressure models. It utilizes a double diaphragm sensor technology that outperforms standard double sensor products in accurate, reliable and static operating pressure.

HPT700 DP sensor offers excellent linearity and performance over temperature, long and reliable service life with excellent long-term stability. Customers can choose from multiple accuracy, outputs.

This differential pressure sensing technology offers 0.25% accuracy with static operating pressures up to 10 bar. With its digital compensation, the pressure ports, electrical terminations and pressure ranges.

Holykell can provide a cost-effective solution for pressure monitoring for a variety of applications. Welcome your inquiry.

Measuring range	
bar	0.1 to 0. 5.. 0.5 to 1… 1 to 10
KPa	10 to 50... 50 to 100…100 to 1000
Psi	1.5 to 7... 7 to 15 … 15 to 150
mbar	0.01 to 0. 05.. 0.05 to 0.1… 0.1 to1

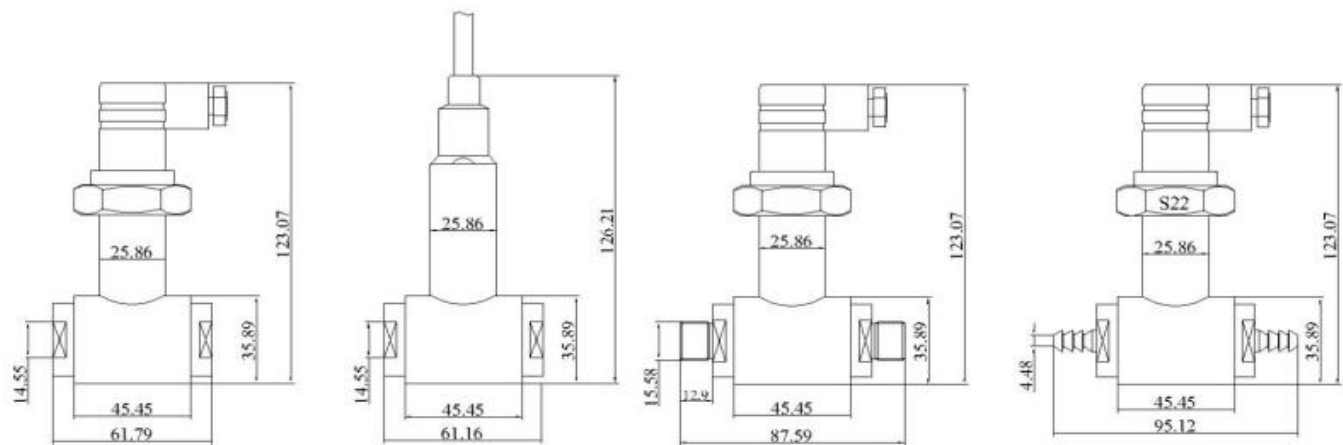They give measuring range also available in Mpa , Pa,in Hg,mm Hg

Materials

Wetted Parts	Standard	Optional
Case and sensor	Stainless steel 316	316L SST/ SUS321
Filled Oil	Silicone oil	Fluorocarbon oil
Cable	PVC	PTFE/PUR/PE

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Specifications

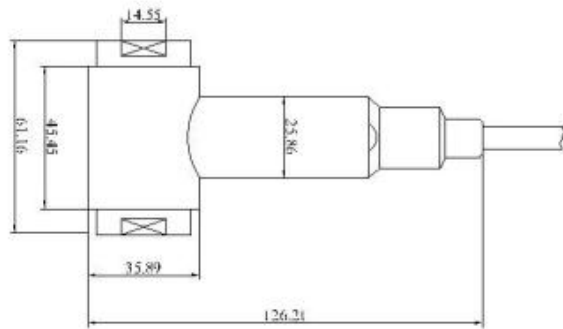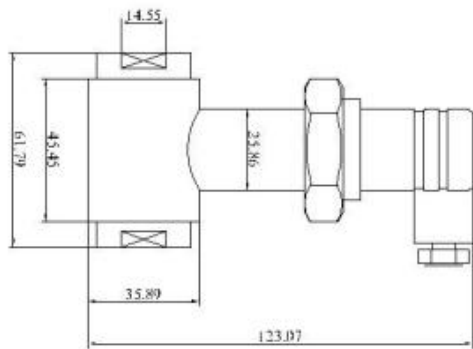Ambient Temperature: 25°C (unless specified)

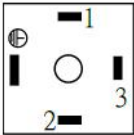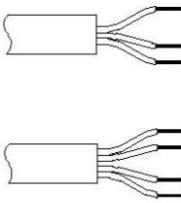| Parameter	HPT700			
Pressure Range	10~50KPa	51~100KPa	101~200KPa	201~1000KPa
High port overload	50~500 kPa	500~1000 KPa	10~20 Bar	20~40Bar
Low port overload	30~150KPa	150~300KPa	300~600KPa	600~1000KPa
Max Static Pressure	50 bar	100 bar	150bar	200bar
Accuracy (Linearity hysteresis repeatability)	≤±0.5%F.S at 25℃ (Typical) ≤±0.25%F.S at 25℃ (by customized)			
Stability	0.1%F.S/Year			
Ambient Temp Span	-40℃~85℃			
Medium Temp Span	-40℃~85℃ / -40℃~125℃(with cool device)			
Storage Temp.	-40℃~105℃			
Temp. compensation	0℃~50℃			
Zero Temp Drift	0.02%F.S/℃			
Span Temp Drift	0.02%F.S/℃			
Medium compatible	Compatible with 316L Stainless Steel			
Electrical Wire	2 Wires	3 Wires		4 wires
Output	4~20mA Loop	0~5V/1-5V analog signal / 0~10 V analog signal / I^2C		RS485 MODBUS (Digital signal)
Power Supply	7~30Vdc	8~30Vdc / 15~30Vdc / 3.3-5.5Vdc		7-30Vdc
Load resistance	(U-10)/0.02(Ω)	>100kΩ		Max 255
Insulate resistance	>100M Ω @100V			
Electrical connection	Fixed cable and water proof IP67 (HPT700-S); Terminal Box DIN43650 IP65 (HPT700-H,HPT700-G)			
Pressure connect port	1/4''-18NPT Female; G1/4'' Male; G1/2'' Male; RG=Ø8/ Ø10gas mouth optional. (by customized)			
Process structure	All-Welded Construction (non-O-rings)			
Response time	≤10ms			
Pressure Type	Differential Pressure (Gauge Type)			
Certificate	ExiaIICT6 and CE Certificate.			
EMC Standard	EN 61326-1:2013; EN 61326-2-3:2013 EN 61000-6-2:2005; EN61000-6-4:2007+A1			
Water Proof	IP65 to IP68 optional by model			
Weight	Net weight is about 0.4KG, Full Packing weight is about 0.7KG (Including 3 Meters Cable)			

Dimensions and Drawing

Unit: mm

Electrical Connections

DIN 43650 Connector		
Current	1	Vcc+ / Red
	2	S_i+ / Green
	3	NC
	4	Shield / Black
Voltage	1	Vcc+ / Red
	2	GND / Black
	3	S_i+ / Green
	4	Shield

Direct cable outlet		
Current	Red	Vcc+
	Green	S_i+
	Black	Shield
Voltage	Red	Vcc+
	Green	S_i+
	Black	GND
	Yellow	Shield
RS485 Modbus RTU	Red	Vcc+
	Black	GND
	Green	485A
	Blue	485B
	Yellow	Shield

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How to Order

1. Pressure Range Selection Table:

01	0.5	02	1	03	1.5	04	2	05	2.5	06	3	07	3.5	08	4	
09	5	10	10	11	14	12	14.5	13	15	14	20	15	25	16	30	
17	35	18	40	19	50	20	100	21	150	22	160	23	200	24	250	
25	300	26	350	27	500	X	By Customized									

Kindly according to your application select suitable range code , Example: Code 09 =5 .
Unit of measure select on the Part Number Selection Table . Example: Code B=Bar , that's 5 bar.

2. Part Number Selection Table:

700 Selection Type		H	09	B	E5	S11	10	P1	1	002
Electrical Connection	H=Hirschmann DIN43650 S=Directly cable outlet G=LED digital display									
Pressure range	Range refer to pressure range selection table code.									
Pressure unit	B= bar P=Psi K=KPa M=MPa H=mH2O									
Signal output	E5=4-20mA(2 wire) E6=0-5V (3 wire) E7=0-10V (3 wire) E0=1-5V (3 wire) E11=RS485 MODBUS RTU (4 wire) E13=I^{2}C digital output E14=4-20mA +Hart (2 wire)									
Power supply	S3=24 Vdc S4=3Vdc S5=12 Vdc S9=15-30Vdc S10=12-30 Vdc S11=7-30Vdc S12=8-30 Vdc S50=3.3-5.5Vdc									
Pressure connection	3= 1/4'' NPT male 6=G1/4"male 7=G1/4"Female 8= M20x1.5 male 9=G1/2'' male 10 =1/2'' NPT male 26=1/4''-18NPT Female 40= Ø8 gas mouth 42= Ø10 gas mouth X= By customized									
Max static pressure	P1=Standard by DP Range P2=High Static Pressure Type (20MPa) X=By Customized									
Accuracy	0=1%F.S 1=0.5%F.S 2=0.25%F.S (by customized)									
Cable length	000=Non-Cable 001= Cable 1M 002= Cable 2M X= By Customized									

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Accessories

(Notes: Please purchase separately. For the price of accessories, please contact our sales.)

	Description	Order number
	Liquid level display control device With all kinds of liquid level sensor, measurement according to liquid level, and according to the setting of the container structure and size and the density of liquid, calculation, display liquid volume or quality.	0008
	Attached LED indicator for transmitters standard version	0006
	Attached LCD indicator for transmitters standard version	0007
	Terminal box The terminal box, with IP67 and watertight ventilation element, provides a moisture-free electrical termination for the submersible pressure transmitter. It should be mounted in dry environment or directly in the switch cabinet.	0003

Order information

Model /Measuring range /Output Signal/Medium/Cable length/Case/Accessories