

TECHNOLOGY

**HOLYKELL®**

# **HPT200**

## **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

# HPT200 series

## Universal Industry Pressure(Level) Transducer & Transmitter

### Applications

- Critical industrial applications
- Petroleum
- Chemi-industry
- Metallurgy
- Power station
- Hydrology, Agriculture
- Harsh environments in the process industry
- Fuel storage and transport

### Features

- Non-linearity up to 0.1% of span
- High Shock and Vibration
- Customized outputs, electrical connections and pressure ports
- CE ATEX RoHS certificate approved
- Overcurrent/overvoltage protection
- Polarity Protection
- Full sealed high stability impact design

### Profiles

HPT200 pressure transducers/transmitters use high quality imported piezoresistive pressure sensor. It has a fully welded 316L stainless steel housing, with high shock and vibration resistance and EMI/RFI protection.

HPT200 series offers continuous measuring ranges up to 1000 bar and it can be combined with all the standard industrial output signals, the most common process connections and a wide number of electrical connections.

Furthermore, it offers numerous options, such as different accuracy classes, extended temperature ranges and custom specific pin assignments, meaning it can suit the widest range of applications.

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



**RoHS CE**

### Measuring range

bar	-1 to 1...0 to 0.1...0 to 1000
Kpa	-100 to 100...0 to 10...0 to 100000
psi	-15 to 15...0 to 1.5...0 to 15000
mbar	-1000 to 1000...0 to 100...0 to 1000000
m	0 to 1...50m Level (by customized)

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

### Materials

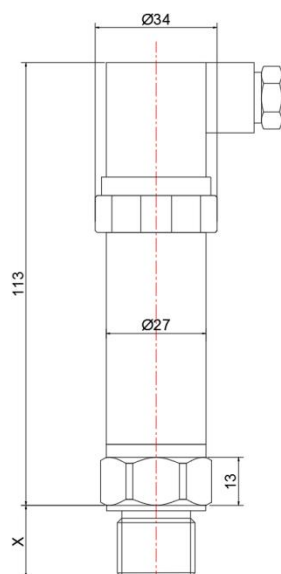
Wetted Parts	Standard	Option
Case and sensor	Stainless steel 316L	316 SST/SUS321
Filled Oil	Silicone oil	Fluorocarbon oil
Cable	PVC	PTFE/PUR/PE

### Specifications

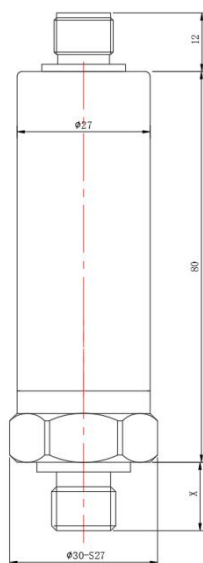
Ambient Temperature: 25°C (unless specified)

Parameter	HPT200-H/C8/C5							
Pressure Range	Gauge /Absolute / Sealed gauge / Negative pressure optional.							
Safe Overload	200% F.S.							
Burst Pressure	500% F.S.							
Accuracy at 25°C (Linearity Hysteresis Repeatability)	$\leq \pm 0.25\% \text{ F.S typical}$ $\leq \pm 0.1\% \text{ F.S (by customized) at } 25^\circ\text{C}$ Including non-lin., rep. and hys.							
Total Error Band	0. ...50 °C max. $\leq \pm 0.75\% \text{ FS}$ ; 1. -10...60 °C max. $\leq \pm 1.0\% \text{ FS}$							
Long-term Stability	0.1%F.S/Year							
Working Temp.	-20°C~80°C(corrosive medium); -40°C~80°C(non-corrosive medium)							
Storage Temp.	-40°C~125°C(Nitrile rubber sealing ring); -30°C~150°C(fluororubber rubber sealing ring)							
Medium Compatible	Compatible with SUS316L							
Electrical Wire	2 Wires		3 Wires			4 wires		
Output	4-20mA	4-20mA+Hart	0-5V;0.5-5V	0-10V	0.5-4.5V non-ratiometric	4-20mA +Temp(Ω)	Double 4-20mA (P+Temp)	RS485 Modbus RTU
Power Supply	7-30Vdc	12-30Vdc	8-30Vdc	13-30Vdc	5Vdc $\pm 5\%$	12-30Vdc	12~30Vdc	3.3-36Vdc
Load Resistance	Current type: (U-10)/0.02 (Ω); Voltage type: >100K Ω							
Insulate resistance	>100M Ω @100V dc							
Zero Temp. Drift	0.2%FS/°C ( $\leq 100\text{kPa}$ ), 0.1%FS/°C ( $> 100\text{kPa}$ )							
Body material	316L stainless steel							
Material of diaphragm	316L Stainless steel							
Endurance	>100 million cycles, 10...90 %FS at 25°C							
Electrical connection	DIN43650 Hirschmann Connector 4 Pin Type Direct cable outlet type							
Limiting Frequency	1 kHz							
Mechanical vibration	$\pm 20\text{g}$							
Pressure connect port	G1/4"male, G1/2"male, 1/8"NPT male, 1/4"NPT male, 1/2"NPT male and female optional. (by customized)							
Water Proof	IP65 to IP67							
Response time	$\leq 10\text{ms}$							
Options	Temperature Range by customized, Maximal range: -40...+100 °C Oil Filling Fluorocarbon oil (O2-compatible), olive-oil, lowest temperature oil (-55 °C) Pressure Connection, Electrical Connection Others on request. withstand Xylene medium pressure and level application (customized)							

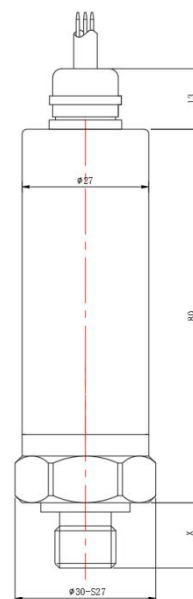
## Dimensions and Drawing



HPT200-H



HPT200-C5



HPT200-C8

Unit,mm

## Electrical Connection

Direct cable outlet			
	Current	Red	Vcc+
		Green	Si+
		Black	Shield
	Voltage	Red	Vcc+
		Green	Vout
		Black	GND

Direct cable outlet			
	4-20mA +Temp	Red	Vcc+
		Green	S+(Pressure)
		Yellow	S+(PT100A)
		Blue	S+(PT100B)
		Black	GND&Shield
	Rs485 RTU Modbus	Red	Vcc+
		Black	Vcc-&S-
		Green	RS485A
		Blue	RS485B
		Yellow	Shield wire

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

Plug:4-pin Type			
	Current	1	Vcc+ /Brown
		2	Si+ / White
		3	NC
		4	Shield / Black
	Voltage	1	Vcc+ / Brown
		2	Vout/ White
		3	GND / Blue
		4	Shield /Black

### How to Order

#### 1. Range Selection Table:

01	-1~65	07	0~6	13	0~35	19	0~160	25	0~500		
02	-1~125	08	0~10	14	0~40	20	0~200	26	0~600		
03	0~1	09	0~16	15	0~50	21	0~250	27	0~1000		
04	0~2	10	0~20	16	0~60	22	0~300				
05	0~3	11	0~25	17	0~70	23	0~350				
06	0~5	12	0~30	18	0~100	24	0~400	X	By Customized		

Kindly according to your application select suitable range code , Example: Code 11 = 25 .





Unit of measure select on the Part Number Selection Table . Example: Code B=Bar , that's 25 bar .

#### 2. Part Number Selection Table:

<b>200</b> Selection Type	<b>H</b>	<b>15</b>	<b>B</b>	<b>G</b>	<b>E7</b>	<b>S43</b>	<b>3</b>	<b>N</b>	<b>1</b>	<b>002</b>
Electrical Connection	H= Hirschmann DIN43650 EX=1/2"NPT C8=Directly cable outlet C5= M12 (4-pin) Type GE=LED digital display GC=LCD digital display									
Pressure Range	Range reference to pressure range selection table code									
Pressure Units	B=bar P=Psi K=KPa M=MPa H=mH2O F=m Fuel									
Pressure type	G=Gauge/Relative A=Absolute									
Signal Output	E0=1-5V (3 wire) E5=4-20mA(2 wire) E6=0-5V(3 wire) E7=0-10V (3 wire) E8=0.5-4.5V(3 wire) E11=RS485 Modbus RTU (4wire) E22=Double 4-20mA for P+T E55=4-20mA+Temp. X= By customized									
Power Supply	S6=5Vdc S10=12-30Vdc S11=7-30Vdc S12=8-30Vdc S19=3.3-36Vdc S43=13-30Vdc X= By customized									
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"-18 NPT Female X= By customized									
Other option	C=Anti-corrosive Type F=Flush diaphragm O=Oxygen services X=Withstand Xylene N=Standard Type FF=Fuel Filter									
Accuracy	2=0.25%F.S 3=0.1%F.S(by customized)									
Cable length	000=Non-Cable 001= Cable 1M 002= Cable 2M X= By customized									

### Accessories

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

	Description	Order number
	<b>Liquid level display control device</b> 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
	<b>Terminal box</b> 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