

TECHNOLOGY

**HOLYKELL®**

# **HPT200-EX**

## **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-EX

## Industrial Explosion-proof Type Pressure Transmitter



### Applications

- Oil, gas applications
- Drilling platforms and pipeline
- Refineries and petrochemical industry
- Natural gas compressors
- Marine and vessel approved
- Diesel tank level monitoring
- Hydraulic and pneumatic system
- Harsh and hazardous application

### Features

- Imported chip, 0.25% F.S.
- 316L stainless steel diaphragm  
Welded SUS316L Body construction
- High degree of EMC/EMI protection
- Strong shock and erosion resistance
- IP68 waterproof protection
- Exia IIC T6, ATEX approved
- Custom absolute and gauge (relative) versions



### Profiles

The HPT200-EX intrinsically safe pressure transmitter is designed for use in hazardous environments, and offers a reliable pressure measurement, specifically for the high demands of industrial oil and gas applications. It has the explosion proof Exia IIC T6 ATEX approval.

It features all stainless steel wetted parts, an exceptionally high resistance to vibration, pressure spikes and moisture ingress. Furthermore, this pressure transmitter is IP68 rated. The fully sealed structure makes it ideal for installation where space in a hazardous environment is at a premium.

HPT200-EX pressure transmitter can be delivered with analog signals 4...20mA or RS485 RTU output signal, absolute and gauge (relative) pressure can be measured with measuring ranges from up to 600 bar.

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

### Measuring range

bar	-1 to 0..0 to 0.1...0 to 600
Kpa	-100 to 0..0 to 10...0 to 60000
psi	-15 to 0..0 to 1.5...0 to 9000
mbar	-1000 to 0..0 to 100...0 to 600000

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

### Materials

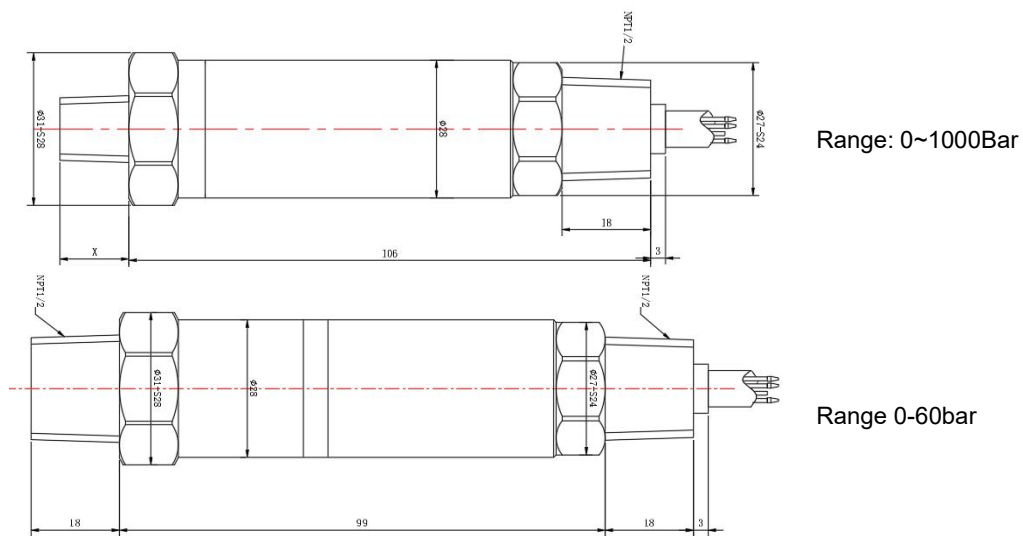
Wetted Parts	Standard	Optional
Case and sensor	Stainless steel 316L	316 SST/SUS321
Filled Oil	Silicone oil	Fluorocarbon oil
Cable	PVC	PTFE/PUR/PE

### Specifications

Ambient Temperature: 25°C (unless specified)

Parameter	HPT200-EX
Pressure Range	Gauge /Absolute / Negative pressure optional
Overload	200% F.S.
Burst Pressure	500% F.S.
Accuracy	0.5%F.S.(Typical); 0.25%F.S.; 0.1%F.S.(by customized) at 25°C
(Linearity Hysteresis Repeatability)	Including non-lin., rep. and hys. Optional
Long-term Stability	≤ ±0.1%F.S. of span/year
Working Temp.	-20°C~80°C (corrosive medium), -40°C~80°C (non-corrosive medium)
Compensation Temp.	0°C~50°C
Storage Temp.	-40°C~125°C (Nitrile rubber sealing ring); -30°C~150°C (fluororubber rubber sealing ring)
Medium Compatible	Compatible with 316L Stainless Steel
Electrical Wire	2 Wires3 Wires4 wires
Output	4-20mA 4-20mA+ Hart 0-5V;0.5-5V 0-10V 0.5-4.5V non-ratiometric RS485 Modbus RTU
Power Supply	7-30Vdc 12-30Vdc 8-30Vdc 13-30Vdc 5Vdc±5% 7-30Vdc
Load Resistance	(U-10)/0.02 (Ω)
Insulate resistance	>100M Ω @100V
Zero Temp. Drift	0.03%FS/°C (≤100kPa), 0.02%FS/°C (>100kPa)
Pressure Connection	G1/4" male, G1/2" male, 1/4"NPT male, 1/2"NPT male optional
Electrical connection	1/2"NPT male thread with cable outlet IP68.
Endurance	>100 million cycles, 0...100 %FS at 25°C
Explosion-proof rating	Ex(ia) IIC6
Mechanical vibration	±20g
Certificate	CE RoHS ATEX
IP rating	IP68
Response time	≤10ms
Options	Custom 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



## Electrical Connection

Direct cable outlet		
	Current	Red U+
		Green Iout(U-)
		Black $\perp$ Connect to earth ground
	Voltage	Red U+
		Green Vout
		Black U-
	RS485 RTU Modbus	Red U+
		Black U-
		Green RS485A
		Blue RS485B
		Yellow $\perp$ Connect to earth ground/Black

## Pressure Connections

M20x1.5 male	1/2" NPT male	1/4" NPT male	G1/2" male	G1/4" male
M20x1.5 male	1/2" NPT	1/4" NPT	G1/2"	G1/4"

### 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				
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 08 =10 .





Unit of measure select on the Part Number Selection Table . Example: Code B=Bar , that's 10 bar .

#### 2. Part Number Selection Table:

<b>200</b>	<b>EX</b>	<b>04</b>	<b>B</b>	<b>G</b>	<b>E5</b>	<b>S11</b>	<b>3</b>	<b>N</b>	<b>1</b>	<b>002</b>
Selection Type										
Electrical Connection	EX= 1/2"NPT X=By customized									
Pressure Range	Range reference to pressure range selection table code									
Pressure Units	B=bar    P=Psi    K=KPa M=MPa    H=mH2O									
Pressure type	G=Gauge/Relative    A=Absolute									
Signal Output	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) E14=4-20mA+Hart (2 wire)    E18=0.5-5V (3 wire) X= By Customized									
Power Supply	S6=5Vdc    S10=12-30Vdc S11=7-30Vdc    S12=8-30Vdc S43=13-30Vdc    X=By customized									
Pressure connection	1=7/16-20 UNF male    2=7/16-20 UNF Female 3= 1/4" NPT male    6=G1/4" male 8= M20x1.5 male    9=G1/2" male 10 =1/2" NPT male    X=By Customized									
Other option	C=Anti-corrosive Type    O=Oxygen Services X=Withstand Xylene    N=Standard Type									
Accuracy	1=0.5%F.S.    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
	<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. It's use for extend ground cable to control room.	0003
	<b>Adapter Converter</b> It is able to convert RS-232 signal to RS-485 balanced differential signal and extend the communication distance to 1.2km.It uses a particular pump to gain power from RS-232 signal (RTS, DTR, TXD) without initializing the RS-232 series interface.This interface converter does this without requiring any AC or DC power.	0005
	<b>Surge electrostatic protector</b> Anti-surge $\pm 2000V/\pm 4000V$ , anti-static 18KV, suitable for protecting 4-20ma and RS485 circuits.	0014

### Order information

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