

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

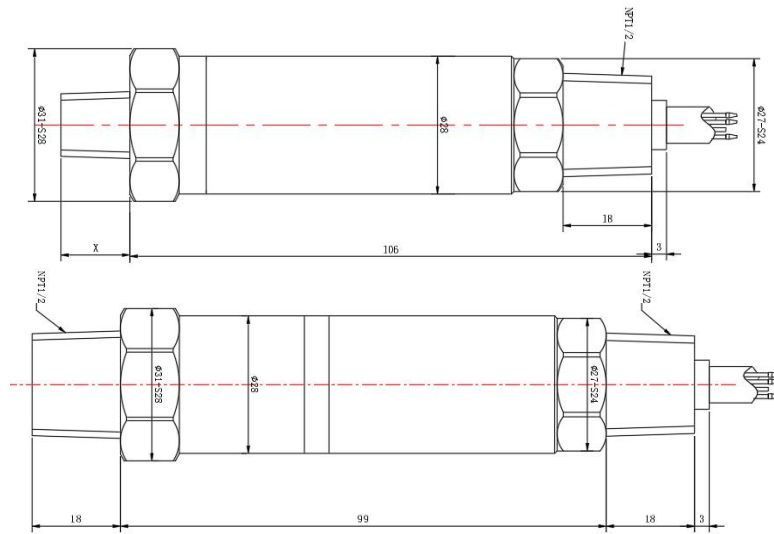
| Wetted Parts | Standard | Optional |
|-----------------|----------------------|------------------|
| Case and sensor | Stainless steel 316L | 316 SST/SUS321 |
| Filled Oil | Silicone oil | Fluorocarbon oil |
| Cable | PVC | PTFE/PUR/PE |

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); -40~250°C by customized | | | | | | |
| 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 Wires | | 3 Wires | | | 4 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) II C6 | | | | | | |
| 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



Range: 0~1000Bar

Range 0-60bar

Unit: mm

Electrical Connection

| | | Cable-out | |
|--|------------------------|-----------|---------------------------------|
| | Current | Red | U+ |
| | | Green | Iout(U-) |
| | | Yellow | ⊥ Connect to earth ground |
| | Voltage | Red | U+ |
| | | Green | Vout |
| | | Black | U- |
| | | Yellow | ⊥ Connect to earth ground |
| | RS485 RTU Modbus | Red | U+ |
| | | Black | U- |
| | | Green | RS485A |
| | | Blue | RS485B |
| | | Yellow | ⊥ Connect to earth ground/Black |

| | | Hirschmann connector | |
|--|------------------------|----------------------|----------------------------------|
| | Current | Pin 1 | U+/Red |
| | | Pin 2 | Iout(U-)/Green |
| | | Pin 3 | / |
| | | Pin 4 | ⊥ Connect to earth ground /Black |
| | Voltage | Pin 1 | U+/Red |
| | | Pin 2 | U-/Black |
| | | Pin 3 | Vout/Green |
| | | Pin 4 | / |
| | RS485 RTU Modbus | Pin 1 | U+/Red |
| | | Pin 2 | U-/Black |
| | | Pin 3 | RS485A/Green |
| | | Pin 4 | RS485B/Yellow |

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:

| | | | | | | | | | | |
|-----------------------|--|-----------------|---|------------------|--|------------|----------|----------|----------|------------|
| 200 | EX | 04 | B | G | E5 | S11 | 3 | N | 1 | 002 |
| 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 M=MPa | P=Psi H=mH2O | K=KPa | | | | | | | |
| Pressure type | G=Gauge/Relative | | A=Absolute | | | | | | | |
| Signal Output | E5=4-20mA(2 wire) E8=0.5-4.5V(3 wire) E14=4-20mA+Hart (2 wire) X= By Customized | | E6=0-5V(3 wire) | | E7=0-10V(3 wire) E11=RS485(MODBUS) E18=0.5-5V (3 wire) | | | | | |
| Power Supply | S6=5Vdc S11=7-30Vdc S43=13-30Vdc | | S10=12-30Vdc S12=8-30Vdc X=By customized | | | | | | | |
| Pressure connection | 1=7/16-20 UNF male 3= 1/4" NPT male 8= M20x1.5 male 10 =1/2" NPT male | | 2=7/16-20 UNF Female 6=G1/4" male 9=G1/2" male X=By Customized | | | | | | | |
| Other option | C=Anti-corrosive Type X=Withstand Xylene | | O=Oxygen Services 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 |
|--|---|--------------|
|  | <p>Liquid level display control device</p> <p>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.</p> | 0008 |
|  | <p>Terminal box</p> <p>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.</p> | 0003 |
|  | <p>Adapter Converter</p> <p>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.</p> | 0005 |
|  | <p>Surge electrostatic protector</p> <p>Anti-surge $\pm 2000V/\pm 4000V$, anti-static 18KV, suitable for protecting 4-20ma and RS485 circuits.</p> | 0014 |

Order information

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