

TECHNOLOGY

HOLYKELL[®]

HPT609
LEVEL
• 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 609

Submersible Fuel Level Pressure Transducer & Transmitter

Applications

- Level Measurement in Bio-Fuels
- Monitoring of Gasoline & Diesel Fuel Tanks
- Level Measurement in Ballast Tanks
- Level Measurement in Oil Tanks
- Monitoring of Contain Coolant for Diesel Engines
- Level Measurement in AdBlue Tanks
- Level Measurement in Kerosene

Features

- Imported pressure chips, 0.5% F.S.,
- Survives Harsh Environments
- EMI/RFI Protection
- Custom level ranges from 50cm to 50m
- Unique impurities filter mesh design
- IP68 full sealed plastic waterproof design
- CE, RoHS, ATEX and IECEx Approved
- Custom PUR or FEP cable lengths

Profiles

HPT609 is a submersible fuel level transducer suitable for differential fuel level and depth measurement. It consists of an Germany imported FS piezoresistive sensing element encased in 316 SS housing. It's all stainless steel, hermetically sealed housing makes it suitable for most industrial measurement of liquids and oils.

Each submersible pressure transducer features a removable nose cone at the sensor which protects the diaphragm from damage. Units come equipped with a 270-pound tensile strength shielded and vented cable. Vented tube in the cable automatically compensates for changes in atmospheric pressure above the tank. The vent is protected with a maintenance free filter eliminating particulate or water droplets from entering the transducer.

HPT609 incorporates lightning and surge protection which utilizes the dual arrestor technology, to assure normal work under the input and output short-circuit conditions, which prevents reverse connection. It eliminates both power supply surges and lightning ground strike transients.

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



Measuring range

| | |
|-----------|------------------------|
| bar | 0 to 0.05 ... 0 to 5 |
| inWC | 0 to 20 ... 0 to 2000 |
| psi | 0 to 1.0 ... 0 to 72.5 |
| mH2O/Fuel | 0 to 0.5 ... 0 to 50 |

When order sensor for gasoline/petrol, please choosing the FEP cable.
The given measuring ranges are also available in mbar, KPa and MPa

Materials

| Wetted Parts | Standard | Optional |
|--------------------------|----------------------|----------------|
| Sensor | Stainless steel 316L | Titanium Alloy |
| Housing & Protection cap | Stainless steel 304 | 316L/PVDF/POM |
| Cable | PUR | FEP |

Mounting position

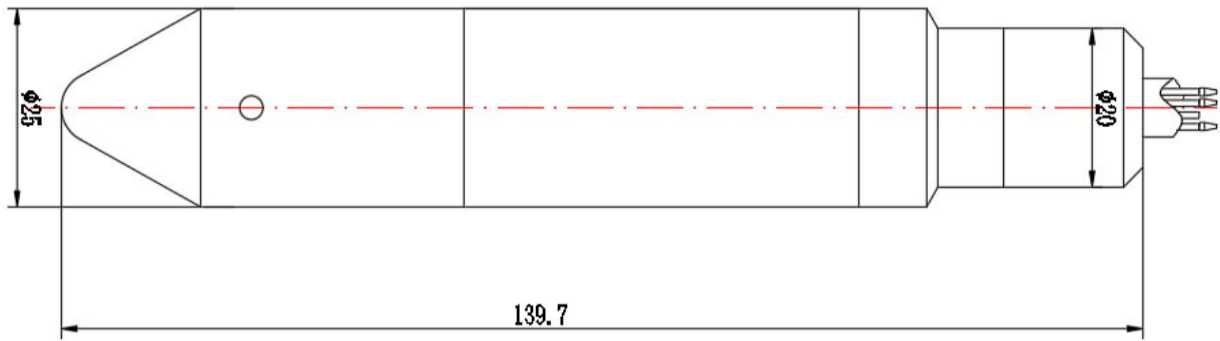
Calibrated in vertical mounting position with pressure connection facing downwards.

Specifications

Ambient Temperature: 25°C (unless specified)

| Parameter | HPT609 | | | |
|--|---|-------------|------------|-----------|
| Pressure Range | 0-0.1 Bar.....5 Bar / 0-1m.....50m fuel level Optional | | | |
| Overload | 150% F.S | | | |
| Burst Pressure | 300% F.S | | | |
| Accuracy(Linearity, Hysteresis, Repeatability) | ≤ ±0.5%F.S (Typical for 2m to 50m range) ; ≤ ±1.0%F.S(Typical for 0-1m range) @25°C including non-lin., rep. and hys. optional | | | |
| Long-term Stability | ≤ ±0.2% FS/year | | | |
| Working Temp. | -40 to +80°C(non-corrosive medium) | | | |
| Storage Temp. | -40 to +80°C(Nitrile rubber sealing ring); -20 to +80°C(fluororubber rubber sealing ring) | | | |
| Temperature Compensation | 0 to +50°C | | | |
| Medium Compatible | Compatible with 304 Stainless Steel | | | |
| Electrical Wire | 2 Wires | | 3 Wires | |
| Output | 4-20 mA | 1-5 V;0-5 V | 0-10 V | 0.5-4.5 V |
| Power Supply | 7-30 V DC | 8-30 V DC | 13-30 V DC | 5 V DC±5% |
| Polarity Protection | The power lines feature reverse polarity protection; however, the signal lines do not have reverse polarity protection against the positive power supply and must not be cross-connected. | | | |
| Insulation Resistance | >100M Ω@100V | | | |
| Zero-point Temp. Drift | 0.01%FS/°C | | | |
| Full scale Temp. Drift | 0.005%FS/°C | | | |
| Electrical Connection | Fixed vented tube cable and water proof IP68 | | | |
| Response Time | ≤20 ms(Current and voltage signals); ≤100 ms (digital signals) | | | |
| Pressure Type | Gauge pressure and absolute optional. | | | |
| Certificate | ATEX (II 1G Ex ia IIC), IECEx, TUV, RoHS and CE | | | |
| EMC Standard | EN 61326-1:2013; EN 61326-2-3:2013 EN 61000-6-2:2005; EN61000-6-4:2007+A1 | | | |
| Surge & Lightning Protection | Surge ±2000V (digital); Air discharge ±8000V; contact discharge ±6000V | | | |
| Cable Optional | Cable materials are optional according to request, we offer 3 types of special cables as follow: PE Cable(Water Proof); PUR Cable(Oil/Fuel Proof); FEP Cable(Anti-Corrosive) | | | |


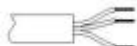
Dimensions and Drawing



Unit: mm



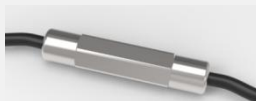




Electrical Connections



| | | Direct cable outlet | |
|---|---------|---------------------|---------------------------|
|  | Current | Red | U+ |
| | | Green | Iout(U-) |
| | | Yellow | ⊥ Connect to earth ground |
|  | Voltage | Red | U+ |
| | | Green | Vout |
| | | Yellow | ⊥ Connect to earth ground |
| | | Black | U- |

Accessories

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

| | Description | Order number |
|---|--|--------------|
|  | <p>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.</p> | 0008 |
|  | <p>Locking flange For locking cables, made of aluminum alloy</p> | 0029 |
|  | <p>IP68 rated deep water level cable extender Mainly used to extend the cable of deep water level transmitter. Users can rewire it locally. It can work continuously for more than 10 years 500 meters underwater, and the safe tensile strength of the cables at both ends can reach 200N</p> | 0028 |
|  | <p>Desiccant drying cartridge Desiccant Pack installed on Vented Transducer cable. The cartridge will have to be field replaced as site environment requires.</p> | 0010 |
|  | <p>Terminal box The terminal box, with IP67 ingress protection 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.</p> | 0003 |
|  | <p>Adapter Converter It is able to convert RS232 signal to RS485 balanced differential signal and extend the communication distance to 1.2km. It uses a particular pump to gain power from RS232 signal (RTS, DTR, TXD) without initializing the RS232 series interface. This interface converter does this without requiring any AC or DC power.</p> | 0005 |
|  | <p>Surge electrostatic protector Anti-surge $\pm 2000V/\pm 4000V$, anti-static 18KV, suitable for protecting 4-20ma and RS485 circuits.</p> | 0014 |

Ordering information

Model / Measuring range / Output signal / Temperature measurement / Cable material / Cable length / Case / Lightning protection / Accessories