

TECHNOLOGY

**HOLYKELL®**

**HPT607E**  
**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 607E

## Economical Submersible Deep Well and Borehole Level Sensor



### Applications

- Groundwater Monitoring
- Deep well and borehole measurements
- Down Hole measurement
- Surface Water Monitoring
- Control of Lift and Pumping Stations
- Level Measurement in Storm Water
- Dam's Operations

### Features

- Germany pressure cell, 0.5% F.S
- 316L stainless steel diaphragm welded 316SS body construction shock and erosion
- Custom level ranges max 200m
- Slender design Ø16mm diameter body
- IP68 full sealed plastic waterproof design
- Optional lightning protection
- Custom PU, PE or FEP cable length

### Profiles

HPT607E series submersible water level sensors are designed with a slim 16mm diameter body to enable it to fit smaller ports, you can use it to measure liquid level and depth for water and waste water applications, at lift stations, Ship- board, in-ground /above ground tanks and with Inventory tank gauging.

They provide repeatable, precision depth measurements under the most adverse conditions. It utilizes Germany imported FS piezoresistive sensing element fitted into a 316L stainless steel housing with an integral welded 316 stainless steel barrier diaphragm.

HPT607E provides highly accurate water level measurement for a wide variety of applications, including those in severe environments. The submersible pressure sensors have a dynamic temperature compensation system, enabling high accuracy measurements over a wide temperature range. It easily adapts to all data loggers, telemetry, monitoring equipment, and displays.

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



### Measuring range

bar	0 to 0.5 ...20
inWC	0 to 200 ... 8000
psi	0 to 5...290
mH2O	0 to 5...200

When choosing the FEP cable, only measuring ranges up to 0 ... 10 bar, 0 ... 150 psi and 0 ... 100 mH2O are available. The given measuring ranges are also available in mbar, kPA and MPa

### Materials

Wetted Parts	Standard	Optional
Case & sensor	316L stainless steel	Titanium
Protection cap	Stainless steel	/
Cable	PE	PUR/FEP

### Mounting position

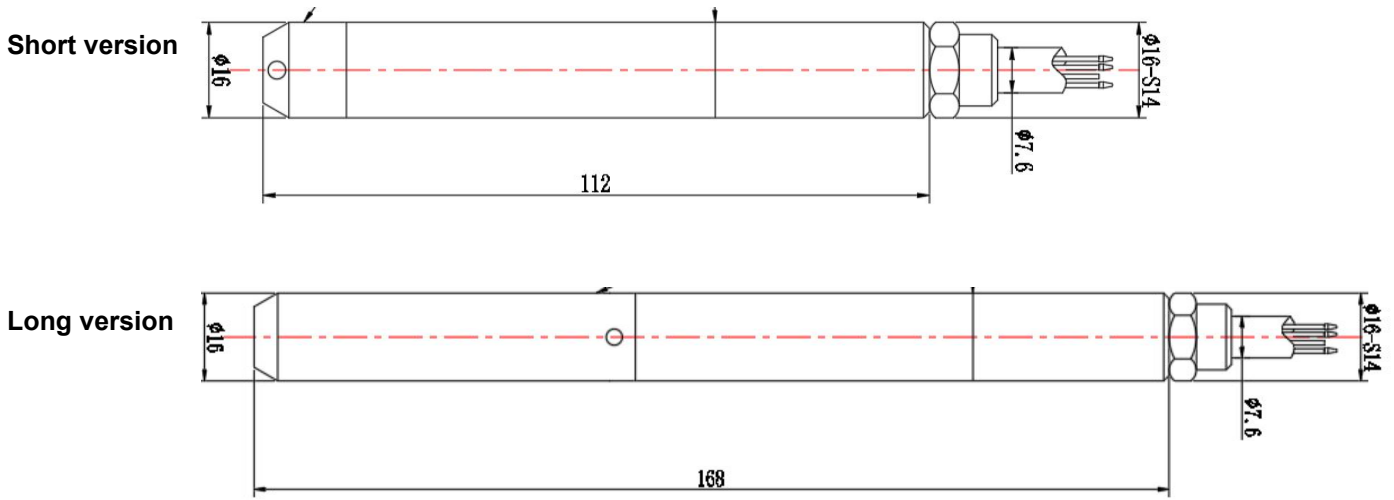
Calibrated in vertical mounting position with pressure connection facing downwards.

### Specifications

Ambient Temperature: 25°C (unless specified)

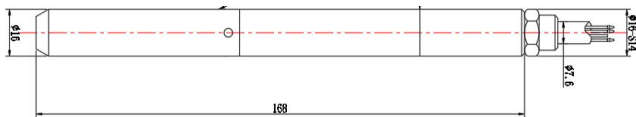
Parameter	HPT607E				
Pressure Range	0-2 Bar.....20 Bar / 0-20m...200m H <sub>2</sub> O optional 0-0.5 Bar.....2Bar / 0-5m...20m H <sub>2</sub> O optional (by customized)				
Overload	150% F.S				
Burst Pressure	300% F.S				
Accuracy(Linearity, Hysteresis, Repeatability)	≤ ±0.5%F.S@25°C (Typical) including 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 316L Stainless Steel				
Electronic Wire	2 Wires	3 Wires			4 wires
Output	4-20 mA	0-5 V;1-5 V	0-10 V	0.5-4.5 V	RS485 Modbus RTU
Power Supply	10-30 V DC	10-30 V DC	10-30 V DC	5 V DC±5%	10-30 V DC
Life Time	≥100,000,000 pressure cycles				
Zero-point Temp. Drift	0.01%FS/°C				
Full scale Temp. Drift	0.005%FS/°C				
Electronic Connection	Fixed cable with vented tube and water proof IP68 (5 layer grade seal, water proof cover+2 grade Rectangular ring+O-ring seal+ sealant+ Encapsulating compound )				
Response Time	≤20 ms(Current and voltage signals); ≤100 ms (digital signals)				
Pressure Type	Gauge pressure and absolute optional				
Certificate	CE Certificate				
EMC Standard	EN 61326-1:2013; EN 61326-2-3:2013 EN 61000-6-2:2005; EN61000-6-4:2007+A1				

Dimensions and Drawing



Unit: mm

Electrical Connections



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

### How to Order

#### 1. Range Selection Table:

19	0~5	20	0~6	21	0~7	22	0~8	23	0~10	24	0~12	25	0~15	26	0~16	27	0~20
28	0~25	29	0~30	30	0~35	31	0~40	32	0~50	33	0~60	34	0~80	35	0~100	36	0~150
37	0~200	X	By Customized														

Kindly according to your application select suitable range code , Example: code 30 = 35 .








Unit of measure select on the Part Number Selection Table . Example: Code H=m H<sub>2</sub>O, that's 35m H<sub>2</sub>O

#### 2. Part Number Selection Table:

<b>607E</b> Selection Type	<b>30</b>	<b>H</b>	<b>G</b>	<b>E5</b>	<b>S17</b>	<b>CW</b>	<b>N</b>	<b>1</b>	<b>020</b>
Range	Range reference to range selection table code								
Pressure & Level Unit	H=m H <sub>2</sub> O(Min: 5mH <sub>2</sub> O; Max:200mH <sub>2</sub> O ) B=bar(Min: 0.5bar Max:20bar) P=Psi(Min:7.5Psi; Max:300Psi)								
Pressure Type	G=Gauge/Relative pressure type (universal) A=Absolute pressure (customized)								
Signal Output	E5=4-20 mA(2 wires)      E6=0-5 V(3 wires) E7=0-10 V(3 wires) E21=0.5-4.5 V non-ratiometric (default, 3 wires) E8=0.5-4.5 V ratiometric (by customized, 3 wires) E11=RS485(MODBUS)      E0=1-5 V(3 wires) X= By customized								
Power Supply	S6=5 V DC      S17=10-30 V DC X= By Customized								
Measuring Medium	CW=Water								
Other Function (Optional)	N=Standard Short Type L=Long Type								
Accuracy	1=0.5%F.S								
Cable Length	020= Cable 20m      050= Cable 50m      100= Cable 100m      X= By customized								

### Accessories

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

	Description	Order number
	<p><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.</p>	0008
	<p><b>Locking flange</b> For locking cables, made of aluminum alloy</p>	0029
	<p><b>IP68 rated deep water level cable extender</b> Mainly used to extend the cable of deep water level sensor. 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><b>Desiccant drying cartridge</b> Desiccant Pack installed on vented sensor cable. The cartridge will have to be field replaced as site environment requires.</p>	0010
	<p><b>Terminal box</b> The terminal box, with IP67 ingress protection and watertight ventilation element, provides a moisture-free electrical termination for the submersible pressure sensor. It should be mounted in dry environment or directly in the switch cabinet.</p>	0003
	<p><b>Adapter Converter</b> 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><b>Surge electrostatic protector</b> Anti-surge <math>\pm 2000V/\pm 4000V</math>, anti-static 18KV, suitable for protecting 4-20 mA and RS485 circuits.</p>	0014

### Ordering information

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