

TECHNOLOGY

**HOLYKELL®**

**HPT607-E**  
**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 607 -E Series

## Economical Submersible Deep Well and Borehole Level Transmitters



### ■ 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 Lifetime Lightning Protection
- Custom PU, PE or FEP cable length



### ■ Profiles

HPT607-E series submersible water level transmitters 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. These transducers utilize Germany imported FS piezoresistive sensing element fitted into a 316L stainless steel housing with an integral welded 316 stainless steel barrier diaphragm.

HPT607-E provides highly accurate water level measurement for a wide variety of applications, including those in severe environments. The submersible pressure transducers 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 and sensor	316L stainless steel	Titanium
Protection cap	Nylon cap	Stainless steel
Cable	PE	PUR/FEP

### Mounting position

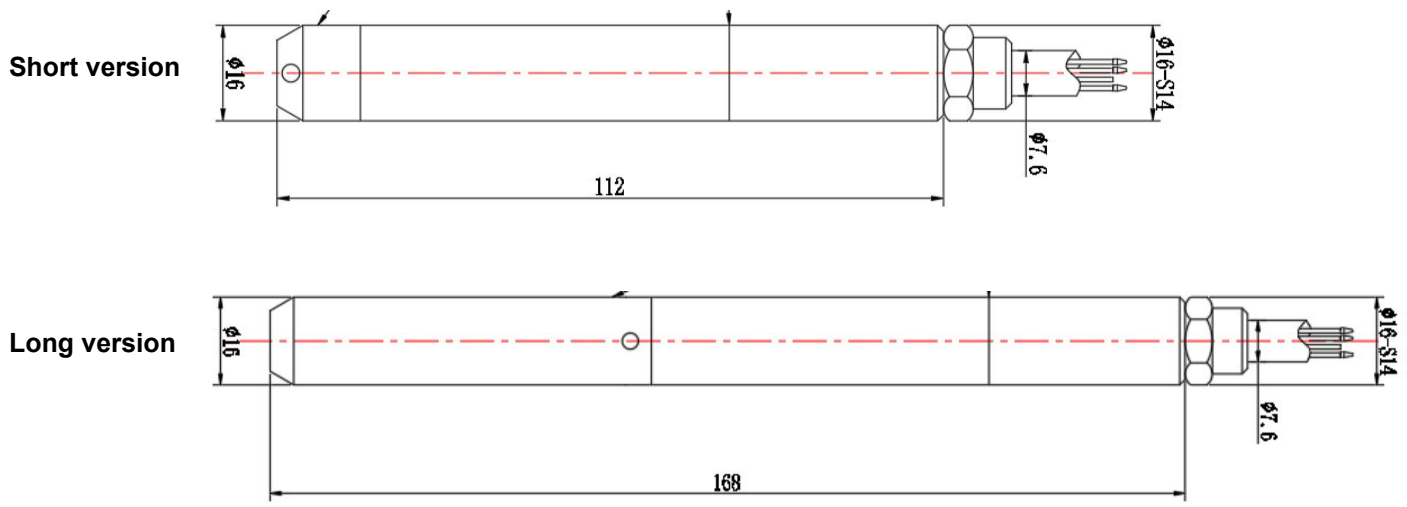
Calibrated in vertical mounting position with pressure connection facing downwards.

### Specifications

Ambient Temperature: 25°C (unless specified)

Parameter	HPT607-E				
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	≤ ±0.5%F.S@25 degree C (Typical)				
(Linearity Hysteresis	Including non-lin., rep. and hys.				
Repeatability)	Optional				
Long-term Stability	0.15%F.S±0.05%				
Working Temp.	-40-80°C(non-corrosive medium)				
Storage Temp.	-40°C~80°C(Nitrile rubber sealing ring); -20°C~80°C(fluororubber rubber sealing ring)				
Temperature Compensation	0°C~50°C (Full temp span 1%F.S. accuracy)				
Medium compatible	Compatible with 316L Stainless Steel				
Electronic Wire	2 Wires	3 Wires			4 wires
Output	4-20mA	0-5V;1-5V	0-10V	0.5-4.5V non -ratiometric	RS485 Modbus RTU
Power Supply	10-30Vdc	10-30Vdc	10-30Vdc	5Vdc±5%	10-30Vdc
Life time	≥100,000,000 pressure cycles				
Zero Temp. Drift	0.2%FS/°C(≤200kPa); 0.5%FS/°C(>200kPa)				
FS Temp. Drift	0.02%FS/°C(≤200kPa); 0.05%FS/°C(>200kPa)				
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	≤10ms				
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**



		Direct sealed cable	
	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 Customize														

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 Units	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=4-20mA(2 wires) E7=0-10V(3 wires) E11=RS485(MODBUS) X= By Customized			E6=0-5V(3 wires) E8=0.5-4.5V(3 wires) E0=1-5V(3 wires)					
Power Supply	S6=5Vdc X= By Customized			S17=10-30Vdc					
Measuring Medium	CW=Water								
Others 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>Flange</b> 4 holes, 316 SS flange, size can be customized</p>	0001
	<p><b>Locking flange</b> For locking cables, made of aluminum alloy</p>	0029
	<p><b>Conduit adapter</b> 316 SS 1/2" NPT male cable conduit adapter. Must be factory installed.</p>	0011
	<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 transmitter. It should be mounted in dry environment or directly in the switch cabinet.</p>	0003
	<p><b>Additional weight</b> The additional weight increases the dead weight of the submersible pressure transmitter. It simplifies the lowering into monitoring wells, narrow shafts and deep wells. It effectively reduces negative environmental influences on the measuring result from the measured medium (e.g. turbulent flow). Stainless steel 316L, approx. 1.46kg, height (H) 70 mm</p>	0009
	<p><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.</p>	0005
	<p><b>Surge electrostatic protector</b> Anti-surge <math>\pm 2000V/\pm 4000V</math>, 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