

TECHNOLOGY

**HOLYKELL®**

**HPT607**  
**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

## Submersible deep well and borehole Level Transducer & Transmitter

### 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

- Imported GE pressure cell, 0.5% F.S.
- 316L stainless steel diaphragm welded 316SS body construction shock and erosion
- Custom level ranges max 500m
- Slender design Ø19mm diameter body
- IP68 full sealed plastic waterproof design
- Optional lifetime lightning protection
- Custom PU, PE or FEP cable lengths

### Profiles

HPT607 submersible water level transmitter is designed with a slim 19mm diameter body to enable it to fit small access 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.

It provides repeatable, precision depth measurements under the most adverse conditions. These transducers utilize the U.S.A imported GE piezoresistive sensing element fitted into a 316L stainless steel housing with an integral welded 316 stainless steel barrier diaphragm.

HPT607 water level sensor provides highly accurate water level measurement for a wide variety of applications, including those in severe environments. The submersible pressure transducer has a dynamic temperature compensation system, enabling high accuracy measurements over a wide temperature range. The water level sensor is easily adapted 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 0.05 ... 0 to 50
inWC	0 to 20 ... 0 to 20000
psi	0 to 1.0 ... 0 to 725
mH2O	0 to 0.5 ... 0 to 500

When choosing the PTFE 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	Stainless steel 316L	Ceramic /Titanium alloy
Protection cap	Stainless steel 316	Titanium alloy
Cable	PUR/PE	FEP

### Mounting position

Calibrated in vertical mounting position with pressure connection facing downwards.

### Specifications

Ambient Temperature: 25°C (unless specified)

Parameter	HPT607					
Pressure Range	0-0.2 Bar.....50 Bar / 0-2m...500m H <sub>2</sub> O Optional * 80m max for SDI-12 signal					
Overload	150% F.S.					
Burst Pressure	500% F.S.					
Accuracy	≤ ±0.5%F.S(Typical); ≤ ±0.25%F.S(by customized) @25 degree C					
(Linearity Hysteresis Repeatability)	Including non-lin., rep. and hys. Optional					
Long-term Stability	0.1%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)					
Temp. compensation	0°C~50°C					
Medium compatible	Compatible with 316L Stainless Steel					
Electrical Wire	2 Wires	3 Wires			4 wires	
Output	4-20mA	0-5V;1-5V	0-10V	0.5-4.5V non-ratiometric	SDI-12	RS485 Modbus RTU
Power Supply	7-30Vdc	8-30Vdc	13-30Vdc	5Vdc±5%	12Vdc	3.5-36Vdc
Life time	≥1×10 <sup>8</sup> pressure cycles					
Zero Temp. Drift	0.2%FS/°C(≤100kPa); 0.1%FS/°C(>100kPa)					
FS Temp. Drift	0.01%FS/°C(≤100kPa); 0.005%FS/°C(>100kPa)					
Electrical 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 )					
Pressure mounting port	With stainless steel filter (Standard type)					
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					
Remarks	Special request by customized					

**Dimensions and Drawing**



Unit: mm

**Electrical Connections**



		Direct cable outlet	
	Current	Red	U+
		Green	Iout(U-)
		Yellow	⊥ Connect to earth ground
	Voltage/ SDI-12	Red	U+
		Green	Vout(for voltage) Signal(for SDI-12 )
		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:

				11	0~2		12	0~2.1		13	0~2.2		14	0~2.3		15	0~2.4		16	0~2.5		17	0~3		
18	0~4		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		38	0~250		39	0~300		40	0~500		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>607</b>	<b>30</b>	<b>H</b>	<b>G</b>	<b>E5</b>	<b>S11</b>	<b>CW</b>	<b>N</b>	<b>2</b>	<b>002</b>
Selection Type									
Range	Range reference to range selection table code								
Pressure & Level Units	H=m H <sub>2</sub> O (Min: 2 mH <sub>2</sub> O; Max:500 mH <sub>2</sub> O ) B=Bar (Min: 0.2Bar Max: 50Bar) P=Psi (Min:3Psi; Max:725Psi) K= kPa (Min:20 kPa; Max:5000 kPa) I= inWC (Min: 80 inWC; Max: 20000 inWC ) MB= mbar (Min:200mbar Max: 50000 mbar)								
Pressure type	G=Gauge/Relative pressure type (universal) A=Absolute pressure (customized)								
Signal Output	E5=4-20mA(2 wires)      E6=0-5V(3 wires) E7=0-10V(3 wires)      E8=0.5-4.5V(3 wires) E11=RS485(MODBUS)      E0=1-5V(3 wires) E16=SDI-12      X= By customized								
Power Supply	S6=5Vdc      S11=7-30Vdc S12=8-30Vdc      S42=3.5-36Vdc S43=13-30Vdc      S5=12Vdc      X= By customized								
Measuring Medium	CW= Water								
Others Function (Optional)	N=Standard Type A=Anti-frequency conversion interference								
Accuracy	1=0.5%F.S (Typical)      2=0.25%F.S (by customized)								
Cable length	002= Cable 2m      005= Cable 5m      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