

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

- MEAS TE pressure cell, 0.5% F.S.,
- 316L stainless steel diaphragm, welded 316SS body construction shock and erosion
- Custom level ranges from 2m to 500m
- Slender design Ø16mm diameter body
- IP68 full sealed plastic waterproof design
- Optional Lifetime Lightning Protection
- Custom PU, PE or PTFE cable lengths

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 a imported MEAS TE 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 0.05 ... 0 to 30
inWC	0 to 20 ... 0 to 12000
psi	0 to 1.0 ... 0 to 435
mH2O	0 to 0.5 ... 0 to 300

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	Option
Case and sensor	Stainless steel 316L	Ceramic /Titanium alloy
Protection cap	Nylon cap	Stainless steel
Cable	PUR/PE	FEP

Mounting position

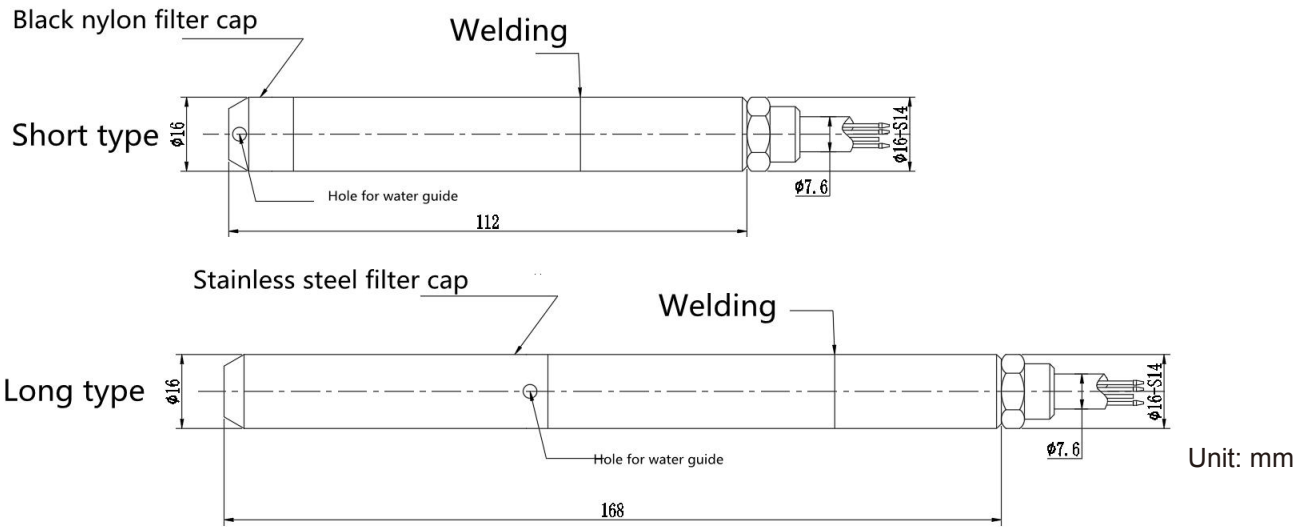
Calibrated in vertical mounting position with pressure connection facing downwards.

Specifications

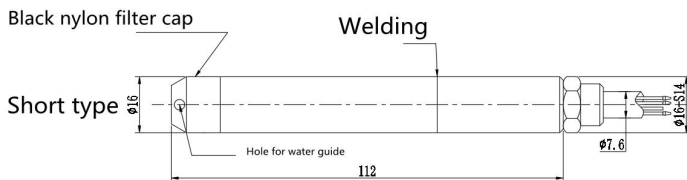
Ambient Temperature: 25°C (unless specified)




Parameter	HPT607-E		
Pressure Range	0-2 Bar.....30 Bar / 0-20m...300m H ₂ O Optional		
Overload	150% F.S.		
Burst Pressure	300% F.S.		
Accuracy:	≤ ±0.5%F.S.@25 degree C (Typical)		
(Linearity Hysteresis Repeatability)	Including non-lin., rep. and hys. Optional		
Long Stability	0.1%F.S±0.05%		
Working Temp	-30°C~70°C		
Storage Temp	-40°C~85°C		
Temperature Compensation	0°C~50°C (Full temp span 1%F.S. Accuracy)		
Medium compatible	Compatible with 316L Stainless Steel		
Electronic Wire Output	2 Wires 4~20mA	3 Wires 0.5~4.5 V Non-Radiometric	4 wires RS485 MODBUS
Power Supply	10~30Vdc	5Vdc±10%	10~30Vdc
Life time	≥100,000,000 pressure cycles		
Zero Temp. Drift	0.05%FS/°C (≤100kPa) ; 0.04%FS/°C (>100kPa)		
FS Temp. Drift	0.05%FS/°C (≤100kPa) ; 0.04%FS/°C (>100kPa)		
Electronic connection	Fixed cable 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 approving	ExdIICT6 and 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



Electronic Connections



Directly sealed cable			
	Current	Red	V_{cc+}
		Green	I_{out}
		Yellow	Earth wire
	Voltage	Red	V_{cc+}
		Green	V_{out+}
		Yellow	Earth wire
		Black	GND
	RS485 RTU Modbus	Red	V_{cc+}
		Green	RS485+
		Black	GND
		Yellow	Earth wire
		Blue	RS485-

V_{cc} =Power Supply, GND= V_{cc-} & V_{out-}

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			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 H₂ O, that's 35m H₂ O

2. Part Number Selection Table:

HPT607E Selection Type	30	H	G	E5	S3	W	N	1	002
Range	Range reference to range selection table code								
Pressure & Level Units	H=m H ₂ O (Min: 20 mH ₂ O; Max:300 mH ₂ O) B=Bar (Min: 2Bar Max: 30Bar) P=Psi (Min:30Psi; Max:435Psi) K= kPa (Min:200 kPa; Max:3000 kPa) l= inWC (Min: 800 inWC; Max:12000 inWC) MB= mbar (Min:2000mbar Max:30000 mbar)								
Pressure type	G=Gauge/Relative pressure type (universal) A=Absolute pressure (customized)								
Signal Output	E5= 4-20mA 2 wires E8= 0.5-4.5V 3wires		E6=0-5V 3 wires E11=RS485 MODBUS RTU						
Power Supply	S3=24Vdc S6=5Vdc (for code E8) S17=10-30Vdc (for code E11)		S5=12Vdc (for code E6) S10=12 ~ 30Vdc (for code E5,E6)						
Measuring Medium	W= Water								
Others Function (Optional)	N=Standard Short Type A=Long Type								
Accuracy @25 degree C	1=0.5%F.S (Typical);		2=0.25%F.S (by customized)						
Cable length	020= Cable 20m	050= Cable 50m	100= Cable 100m	X= By Customized					

Accessories

(Notes: Purchased 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>Flange 4 holes, 316 SS flange, size can be customized</p>	0001
	<p>Locking flange For locking cables, made of aluminum alloy</p>	0029
	<p>Conduit adapter 316 SS 1/2" NPT male cable conduit adapter. Must be factory installed.</p>	0011
	<p>Terminal box The terminal box, with IP 67 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>Additional weight 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>Adapter Converter 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 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