

TECHNOLOGY

HOLYKELL®

HPT606
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 606

Submersible Flood & River Level Transducer & Transmitter



Applications

- Flood level monitor and alarm
- Wastewater treatment and biogas production
- Retention Ponds Monitoring
- Canals and Dams Monitor Systems
- Level Measurement in Lakes, Pond and Rivers
- Level Measurement in waste water channels
- Agricultural applications hydro-static level control

Features

- Imported GE pressure cell, 0.25% F.S
- 316L stainless steel diaphragm welded 316SS body construction shock and erosion
- Custom level ranges from 1m to 200m
- Special sediment filter to prevent to the tiny impurities clogging problem
- IP68 full sealed plastic waterproof design
- Optional lightning protection
- Custom PU, PE or FEP cable lengths

Profiles

HPT606 a fully submersible level transducer suitable for flood and river level measurement. It consists of the U.S.A imported GE piezoresistive sensing element encased in a 316 SS housing. It's all stainless steel, hermetically sealed housing make it suitable for immersion for a long time in most river and flood water.

Each submersible sewage level transducer features a removable 30 um ceramic filter nose which can effective against the inside of the rivers and lakes sediment, stones and grasses into the liquid level sensor, and easy to clean. Ventilation tube in the cable automatically compensates for changes in atmospheric pressure. The vent is protected with a filter eliminating moisture in the transducer. It incorporates lightning and surge protection utilizing dual arrestor technology, to assure under the input and output short-circuit conditions and prevent reverse connection.

It can be used for rivers, flood, sewage, water, liquid measure and control of sewage pump station, water well, liquid tank, medicine, metallurgy, electricity, mine, city water supply and drainage and hydrology, especially used in the field of sewage level and pressure measurement.

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

Measuring range

bar	0 to 0.1... 0 to 20
inWC	0 to 20 ...0 to 8000
psi	0 to 1.0...0 to 300
mH2O	0 to 1.0...0 to 200

The given measuring ranges are also available in mbar, kPa and MPa

Materials

Wetted Parts	Standard	Optional
Housing	Stainless steel 316L	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	HPT606					
Pressure Range	0-0.1 Bar.....20 Bar / 0-1m...200m H2O Optional (See P1 page description) * 80m max for SDI-12 signal					
Overload	150% F.S					
Burst Pressure	500% F.S					
Accuracy(Linearity, Hysteresis, Repeatability)	≤ ±0.5%F.S (Typical); ≤ ±0.25%F.S; ≤ ±0.1%F.S optional @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 316L Stainless Steel					
Electrical Wire	2 Wires	3 Wires			4 wires	
Output	4-20mA	1-5 V;0-5 V	0-10 V	0.5-4.5 V	SDI-12	RS485 Modbus RTU
Power Supply	7-30 V DC	8-30 V DC	13-30 V DC	5 V DC±5%	12 V DC	3.5-36 V DC
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					
Process Connection	Submersible Type					
Electrical connection	Fixed cable with vented tube and water proof IP68					
Response Time	≤20 ms(Current and voltage signals); ≤100 ms (digital signals)					
Pressure Type	Gage pressure and absolute optional.					
Certificate	TUV RoHS and CE Certificate					
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 request, we offer 3 type special cable 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/ 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:

		01	0~1.0	02	0~1.1	03	0~1.2	04	0~1.3	05	0~1.4	06	0~1.5	07	0~1.6	08	0~1.7
09	0~1.8	10	0~1.9	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							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 H₂O, that's 35m H₂O .

2. Part Number Selection Table:

606	30	H	G	E5	S11	CW	N	1	003	
Selection Type										
Range	Range reference to range selection table code									
Pressure & Level Units	H=mH ₂ O(Min:1 mH ₂ O; Max:200 mH ₂ O) B=bar(Min: 0.1bar Max: 20bar) P=Psi(Min:1.5Psi; Max:300Psi)									
Pressure type	G=Gage/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) E16=SDI-12 E0=1-5 V(3 wires) X= By customized									
Power Supply	S6=5 V DC S11=7-30 V DC S43=13-30 V DC			S5=12 V DC S12=8-30 V DC X= By Customized		S42=3.5-36 V DC				
Measuring Medium	CW=Normal Water			SW=Sewage		X=by customized				
Others Function (Optional)	N=Standard Type ELP=External Lightning protection box									
Accuracy	1=0.5%F.S (Typical)			2=0.25%F.S (by customized)						
Cable length	001= Cable 1m		002= Cable 2m		003= Cable 3m		X= By customized			

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