

TECHNOLOGY

**HOLYKELL®**

**HPT605**  
**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 605

## Submersible Sewage/Waste Water Level Transducer



### Applications

- Irrigation Equipment
- Wastewater treatment and biogas production
- Retention Ponds Monitoring
- Canals and Dams Monitor Systems
- Control of Lift and Pumping Stations
- Level Measurement in waste water channels
- Agricultural applications hydrostatic level control

### Features

- Imported GE core, 0.5% F.S.
- 316L stainless steel diaphragm  
Welded 316SS body construction shock and erosion
- Custom level ranges from 1m to 200m
- Filter with 20 pores design to ensure sensitivity
- IP68 full sealed plastic waterproof design
- Optional Lifetime Lightning Protection
- Custom PU, PE or FEP cable lengths

### Profiles

HPT605 a fully submersible level transducer suitable for waste water or sewage level measurement. It consists of the U.S.A imported GE piezoresistive sensing element encased in 316 SS housing. It's all stainless steel, hermetically sealed housing make it suitable for immersion for a long time in most industrial sewage and waste water.

Each submersible pressure transducer features a removable nose cone at the sensor which protects the diaphragm from damage. Units come equipped with a 270-pound tensile strength shielded and vented cable. Ventilation tube in the cable automatically compensates for changes in atmospheric pressure above the tank. The vent is protected with a maintenance free filter eliminating particulate or water droplets from entering the transducer.

HPT605 incorporates lightning and surge protection utilizing dual arrester technology, to assure under the input and output short-circuit conditions to protect prevent reverse connection.

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 40 ... 0 to 8000
psi	0 to 1.5...0 to 300
mH2O	0 to 1...0 to 200

When choosing the FEP cable, only measuring gasoline/petrol.

### Materials

Wetted parts	Standard	Optional
Case and sensor	Stainless steel 316L	Titanium alloy
Protection cap	Stainless steel 316L	316/PTFE/Nylon
Cable	PE	PU/FEP

### Mounting position

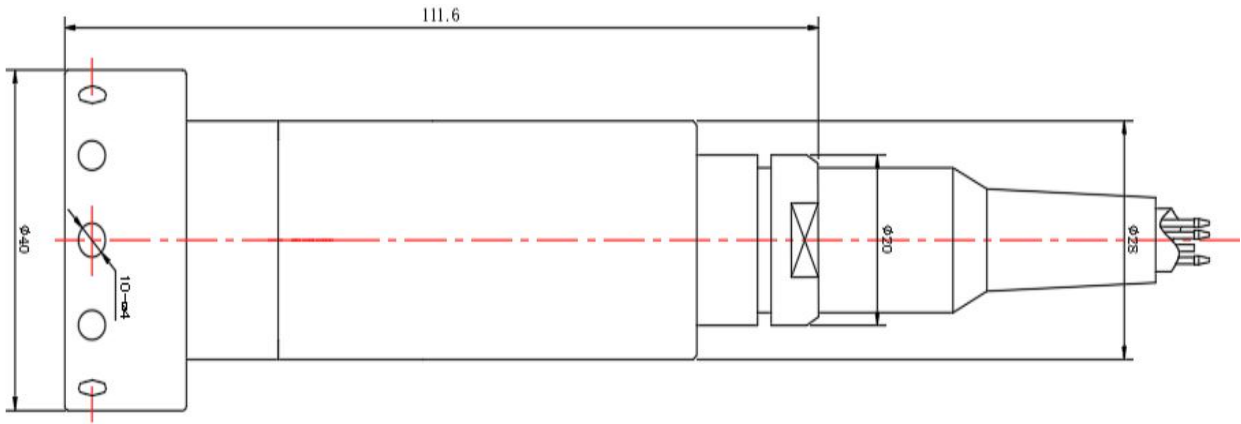
Calibrated in vertical mounting position with pressure connection facing downwards.

**Specifications**

Ambient Temperature: 25°C (unless specified)

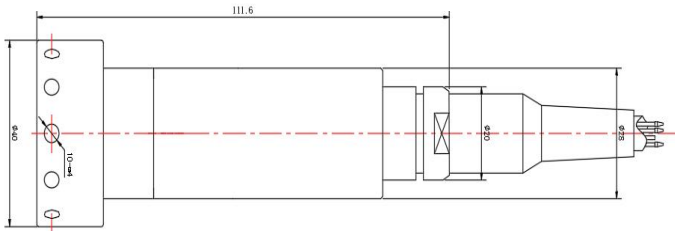
Parameter	HPT605					
Pressure Range	0-0.1 Bar.....20 Bar / 0-1m.....200m H <sub>2</sub> O Optional (See P1 page description) * 80m max for SDI-12 signal					
Overload	150% F.S.					
Burst Pressure	500% F.S.					
Accuracy	≤ ±0.5%F.S (Typical) ; ≤ ±0.25%F.S(by customized) @25 degree C					
(Linearity Hysteresis Repeatability)	Including non-lin., rep. and hys. Optional					
Long-term Stability	≤ ±0.1%F.S. of span/year					
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~80°C					
Medium compatible	Compatible with 316L Stainless Steel					
Electrical Wire	2 Wires	3 Wires				4 wires
Output	4-20mA	1-5V;0-5V	0-10V	0.5-4.5V	SDI-12	RS485 Modbus RTU
Power Supply	7-30Vdc	8-30Vdc	13-30Vdc	5Vdc±5%	12Vdc	3.5-36Vdc
Polarity protection	Yes Power wires-Yes; Signal Wires-Yes, Power&Signal Wires-No!					
Insulate resistance	> 100M Ω@50V					
Zero Temp. Drift	0.2%FS/°C (≤100kPa) ; 0.1%FS/°C (>100kPa)					
FS Temp. Drift	0.02%FS/°C (≤100kPa) ; 0.01%FS/°C (>100kPa)					
Electrical connection	Fixed cable with vented tube and water proof IP68					
Response time	≤10 ms					
Pressure Type	Gauge pressure; Sealed gauge 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					
Lightning Protection (optional functions)	Air conduction more than 8000V; external sensor more than 4000 Voltage protection.					
Cable optional	Cable materials are optional according request, we offer 3 type special cable as follow: PE Cable (Water Proof) ; PU Cable (Oil/Fuel Proof) ; FEP Cable (Anti-Corrosive)					

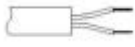

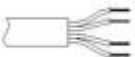
**Dimensions and Drawing**



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 Customized						



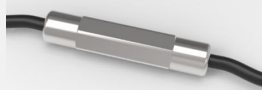




Kindly according to your application select suitable range code , Example: code 19 = 5 .  
 Unit of measure select on the Part Number Selection Table . Example: Code H=mH2O , that's 5m H2O

#### 2. Part Number Selection Table:

<b>605</b>	<b>19</b>	<b>H</b>	<b>G</b>	<b>E5</b>	<b>S11</b>	<b>W</b>	<b>N</b>	<b>1</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: 1 mH <sub>2</sub> O; Max:200 mH <sub>2</sub> O ) B=bar (Min: 0.1 bar Max: 20 bar) P=Psi (Min:1.5Psi; Max:300Psi) K=KPa (Min:10 KPa; Max: 2000KPa) I=inWC (Min: 40 inWC; Max: 8000 inWC ) MB=mbar (Min: 100 mbar Max: 20000 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) E21=0.5-4.5V non-ratiometric (default, 3 wires) E8=0.5-4.5V ratiometric (by customized, 3 wires) E11=RS485(MODBUS) E16=SDI-12                      E0=1-5V (3 wires) X= By customized								
Power Supply	S6=5Vdc S11=7-30Vdc S43=13-30Vdc			S5=12Vdc S12=8-30Vdc X= By customized		S42=3.5-36Vdc			
Measuring Medium	W=Normally Water			S=Sewage/Waste water		C=Strongly corrosive wastewater			
Others Function (Optional)	N= Standard Type TAP=Titanium alloy process material ELP=With external surge and lightning protection box/device X=by customized								
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><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 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><b>Desiccant drying cartridge</b> Desiccant Pack installed on Vented Transducer 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 transmitter. 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 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