

TECHNOLOGY

**HOLYKELL®**

# **HPT613**

## **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 613

## Analog & Digital Ceramic Capacitor Pressure Level Transmitter



### Applications

- Dam, weir, reservoir
- Seawater, diesel, water
- Marine Vessel
- Waterways that are occasionally iced over
- Brackish water, saltwater
- Coastal & Estuary
- River, Lake and Ocean
- Power & Energy Fields

### Features

- Corrosion-resistant
- Surge protection from lightning strikes and voltage spikes
- Flush Ceramic pressure cell resistant to 6x burst pressure
- Rugged design: Ingress protection up to IP68
- Anti-reverse connection Protection
- Excellent long term stability
- EMI/RFI Protection
- CE Certificate approved

### Profiles

HPT613 series is a high reliability, high stability, high precision of the ceramic capacitor liquid level transmitter. They're widely used in slightly corrosive liquid level measurement, such as river water, sea water, oil, natural gas, liquefied gas and other corrosive liquids. The semi-flush ceramic sensing face resists clogging and is easily cleaned.

HPT613 with 316L stainless steel casing adopts Germany E+H ceramic capacitance flush diaphragm pressure sensors, special amplifier and V/I conversion circuit in the transmitter, It can convenient to zero and full range of calibration, and can undertake external program-controlled adjustment of zero and range. This product has got CE certification.

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

### Measuring range

bar	-1 to 0-0.025...20
inWC	-100 to 0-2.5... 2000
psi	-15 to 0-0 5...300
mH2O	-1 to 0- 0.25...200

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

### Materials

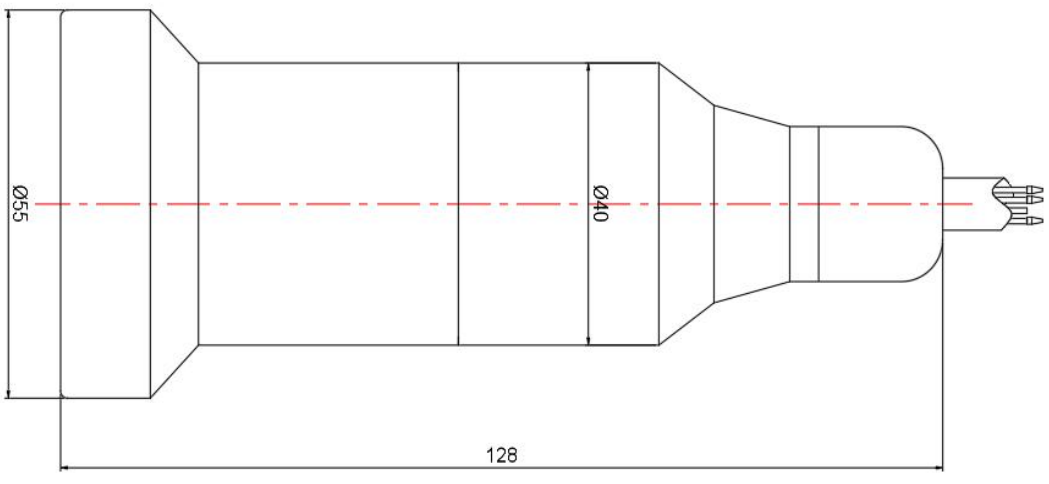
Wetted Parts	Standard	Optional
Case	Stainless steel 316L	Ti/Titanium alloy
Sensor	Ceramic	
Cable	PUR	FEP

### Specifications

Ambient Temperature: 25°C (unless specified)

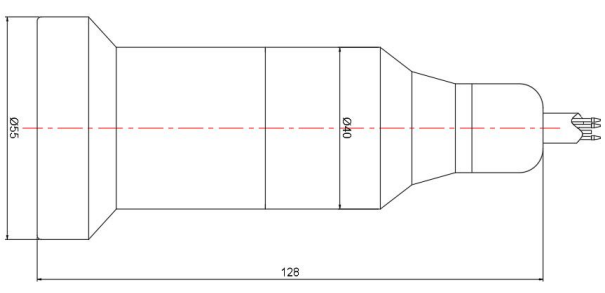
Parameters	HPT613		
Overload	300% F.S		
Burst Pressure	600% F.S		
Accuracy	≤ ±0.25%F.S (Typical); ≤ ±0.1%F.S (optional) @25°C		
Long-term Stability	0.2%F.S/year		
Working Temp.	-20-80°C(Corrosive medium)		
Storage Temp.	-40 to +80°C (Nitrile rubber sealing ring); -20 to +80°C (fluororubber rubber sealing ring)		
Temperature Compensation	0 to +50°C		
Medium compatible	Compatible with 316L Stainless Steel or Titanium Alloy& PTFE optional		
Electronic Wire	2 Wires		4 wires
Output	4-20mA	4-20mA+Hart	RS485 Modbus RTU
Power Supply	7-30 V DC	12-30 V DC	3.5-36 V DC
Load Resistance	(U-12)/0.02 Ω		
Response Time	≤20 ms(Current and voltage signals); ≤100 ms (digital signals)		
Certificate	CE Certificate		
Electronic connection	Fixed cable with vented tube and water proof IP68		
Pressure Type	Gage pressure and absolute pressure optional		
EMC Standard	EN 61326-1:2013; EN 61326-2-3:2013 EN 61000-6-2:2005; EN61000-6-4:2007+A1		
IP Rating	IP68		

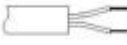
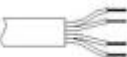
**Dimensions and Drawing**



Unit: mm

**Electrical Connections**



		Direct sealed cable	
	Current	Red	U+
		Green	U-(U-)
		Yellow	⊥ Connect to earth ground
	RS485 RTU Modbus	Red	U+
		Black	U-
		Green	RS485A
		Blue	RS485B
		Yellow	⊥ Connect to earth ground

### How to Order

#### 1. Range Selection Table:

00	0~0.5	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 .



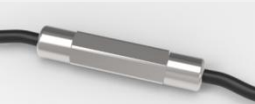




Unit of measure select on the Part Number Selection Table . Example: Code H=mH<sub>2</sub>O, that's 5m H<sub>2</sub>O

#### 2. Part Number Selection Table:

<b>613</b>	<b>S</b>	<b>35</b>	<b>H</b>	<b>G</b>	<b>E5</b>	<b>S11</b>	<b>CW</b>	<b>2</b>	<b>002</b>
Selection Type									
Material	S=316L (Typical) T=Titanium F=PTFE								
Range	Range reference to range selection table code								
Pressure Unit	B=bar    P=Psi    K=KPa H=mH <sub>2</sub> O    F=m Fuel								
Pressure type	G=Gage/Relative    A=Absolute								
Signal Output	E5= 4-20 mA E11=RS485 Modbus RTU E14=4-20 mA+Hart    X=By Customized								
Power Supply	S11=7-30 V DC    S10=12-30 V DC    S42=3.5-36 V DC S17=10-30 V DC    X=By Customized								
Measuring Medium	CW=Water/Seawater    D1=0.84g/cm <sup>3</sup> density diesel D2=0.83g/cm <sup>3</sup> density diesel    D3=0.85g/cm <sup>3</sup> density diesel D4=0.86g/cm <sup>3</sup> density diesel    X=By Customized								
Accuracy	2=0.25%F.S(Typical)    3=0.1%F.S    X=By Customized								
Cable length	000=Non-Cable    001= Cable 1M    002= Cable 2M    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