TECHNOLOGY

HOLYKELL®

HPT612

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 612

Submersible Liquid Level Pressure Transmitter

■ Applications

- Irrigation Equipment
- Sea Water Level Measurement and Control
- Deep Well and Groundwater Monitoring
- Vessel and Storage Monitor Systems
- Control of Lift and Pumping Stations
- Surface Water Monitoring
- Dewatering

■ Features

- GE pressure cell, 0.5% F.S.
- 316L stainless steel diaphragm,
  welded 316SS body construction shock and erosion
- Custom level ranges from 50cm to 100m
- 4-1/2 bits LED/LCD Screen Locally Display optional
- IP68 full sealed plastic waterproof design
- Optional Lifetime Lightning Protection
- Custom PU, PE or FEP cable lengths

■ Profiles

HPT612 is a fully submersible level transducer with display suitable for liquid level and depth measurement. It consists of the U.S.A imported GE piezoresistive sensing element encased in a 316 SS housing. Its all stainless steel, hermetically sealed housing make it suitable for immersion for a long time in most industrial liquids and oils.

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.

HPT612 incorporates lightning and surge protection utilizing dual arrestor technology, To assure under the input and output short-circuit conditions to prevent reverse connection. It also eliminates both power supply surges and lightning ground strike transients.

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 10
inWC	0 to 20 … 0 to 4000
psi	0 to 1.0… 0 to 145
mH2O	0 to 0.5 … 0 to 100

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

Materials

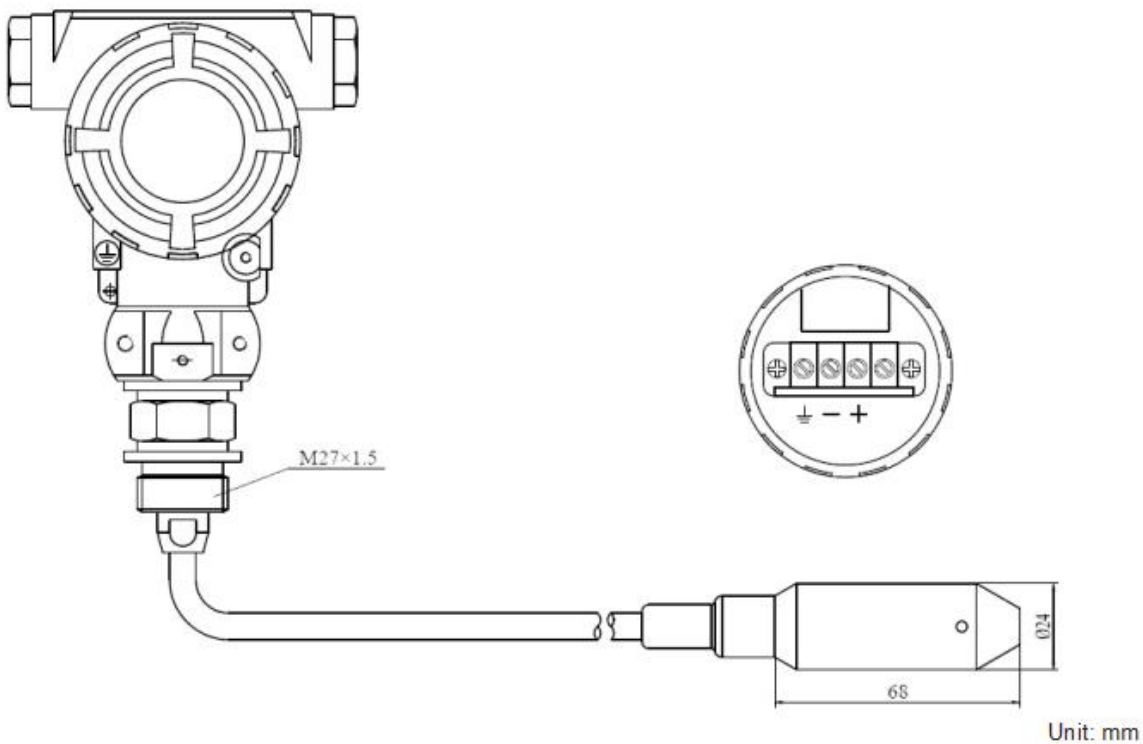| Wetted Parts	Standard	Optional
Case	Stainless steel 316	Titanium
Sensor	Stainless steel 316	Titanium
Cable	PUR/PE	FEP

Mounting position

Calibrated in vertical mounting position with pressure connection facing downwards.

Specifications

Ambient Temperature: 25°C (unless specified)

Parameters	HPT612					
Overload	150% F.S.					
Burst Pressure	300% F.S.					
Accuracy	≤ ±0.5%F.S (Typical); ≤ ±0.25%F.S (by customized) @25 degree C					
Long-term Stability	0.1%F.S±0.05%					
Working Temp.	-40-80℃(non-corrosive medium)					
Storage Temp.	-40℃~80℃(Nitrile rubber sealing ring); -20℃~80℃(fluororubber rubber sealing ring)					
Temperature Compensation	0℃~50℃					
Medium compatible	Compatible with 316L Stainless Steel					
Electronic Wire	2 Wires	3 Wires		5/8WiresTwo Relay Output or	4 wires	
Output	4-20mA	0-5V	0-10V	One Relay with 4-20mA	RS485 RTU	Modbus
Power Supply	7-30Vdc	8-30Vdc	13-30Vdc	18-30Vdc	3.5-36Vdc	
Response time	≤10ms					
Alarm function	With sound alarm output, optional					
Local Display	Yes (LED 4-1/2bits)					
Insulate resistance	> 100M Ω@50V					
Zero Temp. Drift	0.2%FS/℃（≤100kPa）；0.1%FS/℃（>100kPa）					
FS Temp. Drift	0.02%FS/℃（≤100kPa）,0.01%FS/℃（>100kPa）					
Certificate	Exia IICT6 and CE Certificate					
IP Rating	Sensor water proof IP68; Electronic Indicator IP65					
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					
Remarks	3.6V Li-battery with solar panel is available (customized!) Special applications request by Customized					

Dimensions and Drawing

M27×1.5

Ø24

68

Unit: mm

Electronic Connections

Directly sealed cable			
	Current	Red	$V_{cc}+$
		Green	S_i+
		Yellow	Shield
	Voltage/ SDI-12	Red	$V_{cc}+$
		Green	V_{out}
		Yellow	Shield
		Black	GND
	RS485 RTU Modbus	Red	$V_{cc}+$
		Black	GND
		Green	RS485A
		Blue	RS485B
		Yellow	Shield

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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
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$_2$O, that's 5m H$_2$O

2. Part Number Selection Table:

612 Selection Type		**19**	**H**	**G**	**E5**	**S11**	**N**	**N**	**1**	**003**
Range		Range reference to range selection table code								
Pressure Unit		B=Bar P=PSI MB=mbar H=mH2O F=m Fuel								
Pressure type		G=Gage A=Absolute								
Signal Output		E5=4-20mA(2 wires) E6= 0-5V(3 wires) E7=0-10V(3 wires) E11=RS485 MODBUS RTU(4 wires) E23=Double 4-20mA+One Channel Relay alarm E35=Two Channels Relay Alarm X=By Customized								
Power Supply		S11=7-30Vdc S12=8-30Vdc S17=10-30Vdc S27=18-30Vdc S24=3.6Vdc Li Battery S10=12-30Vdc S23=3.6Vdc Li Battery+ External 12 to 30Vdc								
Electronic Display		N=Standard Type (Without Indicator) LE=With LED Indicator LC=With LCD Indicator								
Others Function (Optional)		N=Standard Type (with short filter) PFC= PTFE materials cap/filter cover ANC=Anti-corrosion type (PVDF) TAP=Titanium alloy material probe ELP=With external lightning protection box (for 4-20mA&RS485 non-battery type) 6=G1/4'' male thread mounting type NFC=Nylon material filter cover AL=With barometer and Absolute type								
Accuracy		1=0.5%F.S(Typical) 2=0.25%F.S(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
	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.	0008
	Flange 4 holes 316 SS flange, size can be customized	0001
	Locking flange For locking cables, made of aluminum alloy	0029
	Conduit adapter 316 SS 1/2" NPT male cable conduit adapter.Must be factory installed.	0011
	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.	0003
	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	0009
	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.	0005
	Surge electrostatic protector Anti-surge ±2000V/±4000V, anti-static 18KV, suitable for protecting 4-20ma and RS485 circuits.	0014

Ordering information

Model / Measuring range / Output signal / Temperature measurement / Cable material / Cable length / Case / Lightning protection / Accessories