TECHNOLOGY

HOLYKELL®

HPT608

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 608

Marine & Vessel Application Submersible Sea Water&Fuel Level Transmitter

Applications

- Sea Water ballast
- Fuel/Oil Ballast Tank
- Seawater Pumping Systems
- Cargo Ships Which Carry a Variety of Chemicals
- Sea Water Level Measurement
- Ship Draught Measurement
- Sea Port Wharf Level Measurement

Features

- Accuracy: ≤±0.25%F.S.
- Titanium alloy diaphragm,
- Titanium alloy body construction shock and erosion
- Custom level ranges from 1m to 200m
- 300%F.S.Safe overload
- IP68 full sealed plastic waterproof design
- Optional Lifetime Lightning Protection
- Custom PU, PE or FEP cable length

Profiles

HPT608 level transmitters use high quality U.S.A imported GE ceramic capacitance pressure sensor as signal sensing element, utilizes an all-titanium design to provide long term stability and continued performance under the harshest conditions. This includes corrosive and hazardous chemical applications. The slim design and high media resistance of the titanium submersible level transmitter allow it to perform exceptionally well in down hole applications.

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.

They are also useful in applications which often have tight space constraints and caustic environmental conditions.

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

Materials

Wetted Parts	Standard	Optional
Case and sensor	Titanium alloy/Ceramic	/
Protection cap	316L	Titanium
Cable	PUR	FEP

Mounting position

Calibrated in vertical mounting position with pressure connection facing downwards.

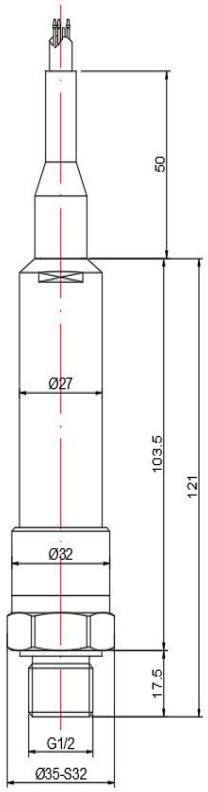
Specifications

Ambient Temperature: 25°C (unless specified)

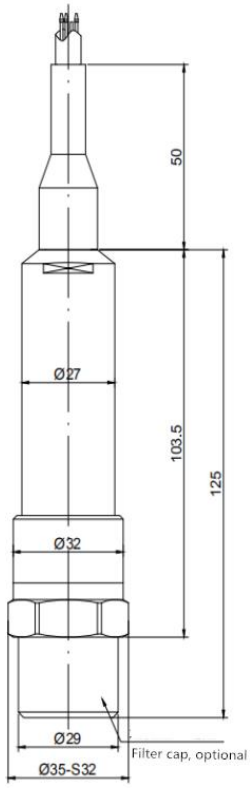
Parameter	HPT608
Pressure Range	0-0.1 Bar…..20 Bar / 0-1m…..200m H_2O Optional (See P1 page description)
Overload	300% F.S.
Burst Pressure	500% F.S.
Accuracy	≤ ±0.50%F.S(Typical); ≤ ±0.25%F.S (by customized) @25 degree C
(Linearity Hysteresis	Including non-lin., rep. and hys.
Repeatability)	Optional
Long-term Stability	≤ ±0.1%F.S. of span/year
Working Temp.	-20-80℃(corrosive medium)
Storage Temp.	-40℃~80℃(Nitrile rubber sealing ring); -20℃~80℃(fluororubber rubber sealing ring)
Temperature Compensation	0℃~50℃
Medium compatible	Compatible with titanium alloy
Electronic Wire	2 Wires 4 wires
Output	4-20mA 4-20mA+Hart RS485 Modbus RTU
Power Supply	7-30Vdc 12-30Vdc 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/℃（≤100kPa）； 0.1%FS/℃（>100kPa）
FS Temp. Drift	0.02%FS/℃（≤100kPa）； 0.01%FS/℃（>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	Exia IICT6, 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

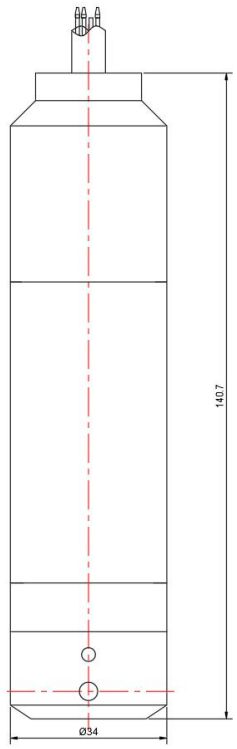
Unit: mm



Titanium alloy case
Pressure sensor

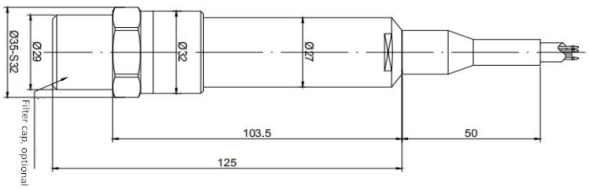


Titanium alloy case
Submersible level sensor



PVDF case

Electrical Connections



	Direct sealed cable		
	Current	Red	U+
		Green	Iout(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:

NA	NA	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												

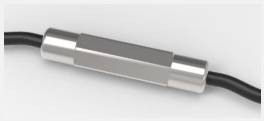
Kindly according to your application select suitable range code , Example: code 19 = 5 .
Unit of measure select on the Part Number Selection Table . Example: Code H=mH2O , that's 5m H2O

2.Part Number Selection Table:

608 Selection Type	**19**	**H**	**G**	**E5**	**S11**	**W**	**N**	**1**	**002**
Range	Range reference to range selection table code								
Pressure & Level Units	H=m H_2O (Min: 1 mH2O; Max:200 mH2O) B=bar (Min: 0.1bar Max: 20bar) P=Psi (Min:1.5Psi; Max:300Psi) K= KPa (Min:10 KPa; Max:2000 KPa) 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 E11=RS485(MODBUS) E14=4-20mA+Hart X= By Customized								
Power Supply	S10=12-30Vdc S11= 7-30Vdc S17=10-30Vdc X= By Customized								
Measuring Medium	W= Water D1=0.84g/cm3 density fuel D3=0.85g/cm3 density fuel D4=0.86g/cm3 density fuel X= by customized								
Others Function (Optional)	N=Standard type, pure titanium housing+Titanium alloy diffused silicon core(without filter cap) C=Pure titanium housing+Titanium alloy diffused silicon core(with filter cap) P=PVDF housing+Ceramic capacitor core 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
	**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
	**Locking flange** For locking cables, made of aluminum alloy	0029
	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	0028
	Desiccant drying cartridge Desiccant Pack installed on Vented Transducer cable.The cartridge will have to be field replaced as site environment requires.	0010
	**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
	**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

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