

TECHNOLOGY

HOLYKELL®

HPT604B
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 604B

Submersible Fuel Level Pressure Transducers & Transmitters

Applications

- Level Measurement in Bio-Fuels
- Monitoring of Gasoline & Diesel Fuel Tanks
- Level Measurement in Ballast Tanks
- Level Measurement in Oil Tanks
- Monitoring of Contain Coolant for Diesel Engines
- Level Measurement in AdBlue Tanks
- Level Measurement in Kerosene

Features

- TE pressure chips, 0.5% F.S.,
- Survives Harsh Environments
- EMI/RFI Protection
- Custom level ranges from 50cm to 50m
- Unique impurities filter mesh design
- IP68 full sealed plastic waterproof design
- CE, RoSH and ATEX Approved
- Custom PUR or FEP cable lengths

Profiles

HPT604 -B type is a submersible fuel level transducer suitable for differential fuel level and depth measurement. It consists of an imported TE piezoresistive sensing element encased in 316 SS housing. It's all stainless steel, hermetically sealed housing make it suitable. The given measuring ranges are also available in mbar, mFuel, mH2O, KPa and bar. for immersion 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.

The HPT604 incorporates lightning and surge protection utilizing dual arrestor technology, and to assure under the input and output short-circuit conditions to protect prevent reverse connection. The grounded to case, eliminating 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 to your inquiry.



Measuring range	
bar	0 to 0.05 ... 0 to 5
inWC	0 to 20 ... 0 to 2000
psi	0 to 1.0... 0 to 72.5
mH2O/Fuel	0 to 0.5 ... 0 to 50

When order sensor for gasoline/petrol, please choosing the FEP cable. The given measuring ranges are also available in mbar, KPa and MPa

Materials		
Wetted Parts	Standard	Option
Sensor	Stainless steel 316L	Titanium Alloy
Housing & Protection cap	Stainless steel 304	316L/PVDF/Nylon
Cable	PUR	FEP

Mounting position

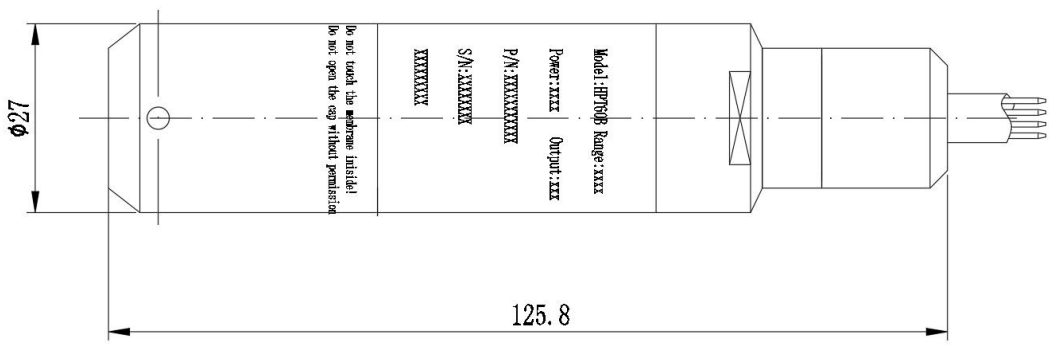
Calibrated in vertical mounting position with pressure connection facing downwards.

Specifications

Ambient Temperature: 25°C (unless specified)

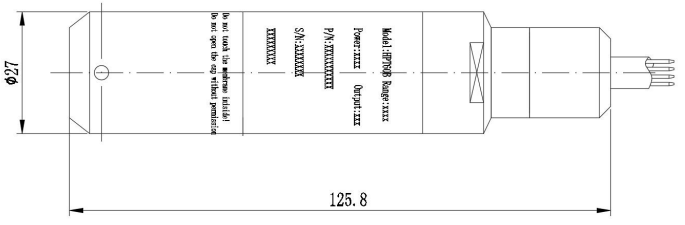
Parameter	HPT604 (B Type)					
Pressure Range	0-0.05 Bar.....5 Bar / 0-0.5M.....50m fuel level Optional (See P1 page description)					
Overload	200% F.S.					
Burst Pressure	500% F.S.					
Accuracy:	≤ ±0.5%F.S (Typical for 1m to 50m range); ≤ ±1.0%F.S(Typical for 0-1m range).					
(Linearity Hysteresis Repeatability)	Including non-lin., rep. and hys.					
Long Stability	≤ ±0.25% of span/year					
Working Temp	-30°C~70°C					
Storage Temp	-40°C~85°C					
Temperature Compensation	0~50°C or Special temp span by Customize.					
Medium compatible	Compatible with 304 Stainless Steel					
Electronic Wire Output	2 Wires	3 Wires		3 wires		4 wires
	4~20mA	1~5V; 0~5V;	0~10 V	0.5~4.5V Non-Radiometric	SDI-12	RS485 Modbus RTU
Power Supply	7~30Vdc	8~30Vdc	15~30Vdc	5Vdc±5%	12Vdc	10~30Vdc (3.3-12Vdc optional)
	Yes		Power wires-Yes; Signal Wires-Yes, Power&Signal Wires-No!			
Insulate resistance	> 100M Ω@50V					
Zero Temp. Drift	0.05%FS/°C (≤100kPa) ; 0.05%FS/°C (>100kPa)					
FS Temp. Drift	0.05%FS/°C (≤100kPa) ; 0.04%FS/°C (>100kPa)					
Electronic connection	Fixed cable and water proof IP68					
Response time	≤10 ms					
Pressure Type	Gauge pressure and absolute optional.					
Certificate approving	ATEX intrinsic safety or ExdIICT6, TUV RoHS and CE Certificate approving					
EMC Standard	EN 61326-1:2013; EN 61326-2-3:2013 EN 61000-6-2:2005; EN61000-6-4:2007+A1					
Lighting 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) ; PUR Cable (Oil/Fuel Proof) ; FEP Cable (Anti-Corrosive)					
Weight	Net weight is about 0.35KG, Full Packing weight is about 1.0 KG (Excluding Cable)					


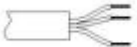

Dimensions and Drawing



Unit: mm

Electronic Connections





Directly sealed cable			
	Current	Red	V_{cc+}
		Green	I_{out}
		Yellow	Earth wire
	Voltage	Red	V_{cc+}
		Green	V_{out+}
		Yellow	Earth wire
		Black	GND
	RS485 RTU Modbus	Red	V_{cc+}
		Green	RS485+
		Black	GND
		Yellow	Earth wire
		Blue	RS485-

V_{cc} =Power Supply, GND= V_{cc-} & V_{out-}

Accessories

(Notes: Purchased 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>Flange 4 holes 316 SS flange, size can be customized</p>	0001
	<p>Locking flange For locking cables, made of aluminum alloy</p>	0029
	<p>Conduit adapter 316 SS 1/2" NPT male cable conduit adapter. Must be factory installed.</p>	0011
	<p>Terminal box The terminal box, with IP 67 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>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</p>	0009
	<p>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.</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