

TECHNOLOGY

HOLYKELL®

HPT604
LEVEL
• DATASHEET •

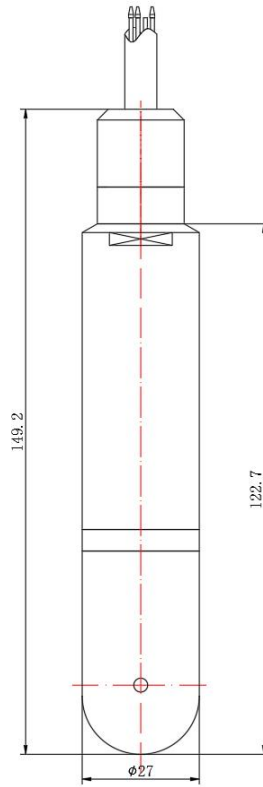
1. Pressure Measurement **2. Level Measurement** 3. Temperature Measurement
4. Flow Measurement 5. Display & Control Instruments
6. Wireless Monitoring System 7. Velocity Measurement

■ Specifications

Ambient Temperature: 25°C (unless specified)

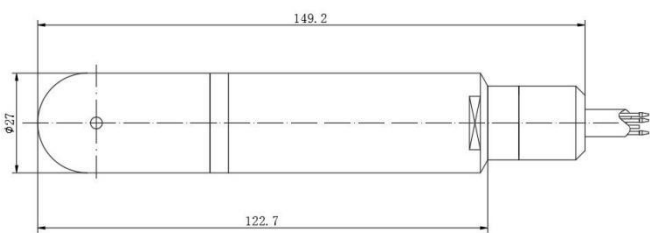
Parameter	HPT604 (Type BH)							
Pressure Range	0-0.05 Bar.....20 Bar / 0-0.5M.....200m fuel level Optional (See P1 page description) * 80m max for SDI-12 signal							
Overload	150% F.S.							
Burst Pressure	500% F.S.							
Accuracy	Better than $\pm 0.25\%$ F.S @25°C (Typical for 1m to 50m range)							
(Linearity Hysteresis Repeatability)	Including non-lin., rep. and hys.							
Long-term Stability	$\leq \pm 0.1\%$ of span/year							
Working Temp.	-30 °C to +80 °C(non-corrosive medium)							
Storage Temp.	-40 °C to +80 °C							
Temperature Compensation	-10 °C to +80 °C							
Medium Compatible	Compatible with 304 Stainless Steel							
Electrical Wire	2 Wires		3 Wires			4 wires		
Output	4-20 mA	0-5 V;1-5 V	0-10 V	0.5-4.5 V	SDI-12	Dual 4-20 mA	RS485	Modbus RTU
Power Supply	7-30 V DC	8-30 V DC	13-30 V DC	5 V DC $\pm 5\%$	12 V DC	12-30 V DC	3.6-5 V DC / 8-30 V DC	
Polarity Protection	Yes	Power wires-Yes; Signal Wires-Yes, Power&Signal Wires-No!						
Insulation Resistance	> 100M Ω @100V							
Zero-point Temp. Drift	0.01%FS/°C							
Full scale Temp. Drift	0.005%FS/°C							
Electrical Connection	Fixed cable and water proof IP68							
Response Time	≤ 20 ms(Current and voltage signals); ≤ 100 ms (digital signals)							
Pressure Type	Gauge pressure 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							
Surge & Lightning Protection (Optional)	Surge ± 1000 V, Air discharge ± 8000 V; contact discharge ± 6000 V							
Cable optional	Cable materials are optional according request, we offer 3 type special cables as follow: PE Cable(Water Proof); PUR 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
	Current(4-20mA P/L+T)	Red	U+
		Green	Iout(U-)
		Yellow	⊥ Connect to earth ground
		Blue	T
	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:

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 F=m Fuel , that's 5m Fuel



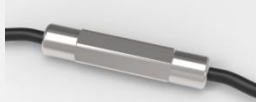




2. Part Number Selection Table:

604 Selection Type	BH (Type BH)	11	F	G	E5	S11	D3	N	1	003	
Range	Range reference to range selection table code										
Pressure & Level Unit	F=m Fuel (Min: 0.5 m Fuel; Max:200 m Fuel) B=Bar (Min: 0.05 bar Max: 20 bar) P=Psi (Min:1Psi; Max:300Psi) K= kPa (Min:5 KPa; Max:2000 KPa) I= inWC (Min: 20 inWC; Max:8000 inWC) MB= mbar (Min: 50 mbar Max: 2000 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 E22=Dual 4-20mA(P/L+T)(3 wires) E0=1-5V(3 wires) X= By customized										
Power Supply	S6=5 V DC		S5=12 V DC		S10=12-30 V DC						
	S11=7-30 V DC		S12=8-30 V DC		S62=3.6-5 V DC						
	S43=13-30 V DC		S17=10-30 V DC		X= By customized						
Measuring Medium	CW=Water			D1=0.84g/cm3 density diesel			D2=0.83g/cm3 density diesel				
	D3=0.85g/cm3 density diesel			D4=0.86g/cm3 density diesel							
	G2=0.725g/cm3 density gasoline			G5=0.737g/cm3 density gasoline							
	X=Others Liquid and Density By customized										
Others Function (Optional)	N= Standard Type T=With Temperature Sensor/Output (only RS485) FC=FEP Cable										
Accuracy	2=0.25%F.S (Typical)		1=0.5%F.S (temp 0 to 50°C)			3=0.1%F.S (By customized)					
Cable Length	001= Cable 1m		002= Cable 2m		003= Cable 3m		X= By customized				

Example of a complete PN: 604BH11FGE5S11D3N1003
 (Model: HPT604-BH, fuel level range 0-2m, gauge type, 4-20mA, 7-30 V DC, 0.85g/cm3 density diesel, standard type, 0.5%F.S accuracy with 3 meters cable)

Accessories

(Notes: Please purchase 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>Locking flange For locking cables, made of aluminum alloy</p>	0029
	<p>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</p>	0028
	<p>Desiccant drying cartridge Desiccant Pack installed on Vented Transducer cable. The cartridge will have to be field replaced as site environment requires.</p>	0010
	<p>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.</p>	0003
	<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