TECHNOLOGY

HOLYKELL®

HPT604-FW

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

HPT604-FW

Submersible Water Detector and Fuel Level & Temperature Transducer

Features:

- Accuracy: ≤±0.25%F.S.
- Wide working temperature scope
- Advanced digital temperature compensation
- Excellent resistance against impact, overload, shock and erosion.
- Water detection, fuel level & temperature optional
- Impact resistance and disturbance

Applications:

- Fuel Tank Level Monitor Systems
- Water detection Under the diesel
- Water Under Oil and Fuel Level Monitor
- Oil and Water Separation Location Detection
- Position Detector Of Silt Layer
- Water Level Position Detector
- Fuel containers
- And so on

Profiles

HPT604-FW is full sealed submersible level transducer. Users can select different versions to detect water presence, fuel level and fuel temperature. It is made by high stable and reliable piezo-resistive pressure sensor with water detect sensors and high accurate circuit board into the stainless steel housing. Integrated conductivity sensor and standard signal provide the user easy and convenient application in the local working place. The special cable connected with housing, can be immersed into the media for a long time.

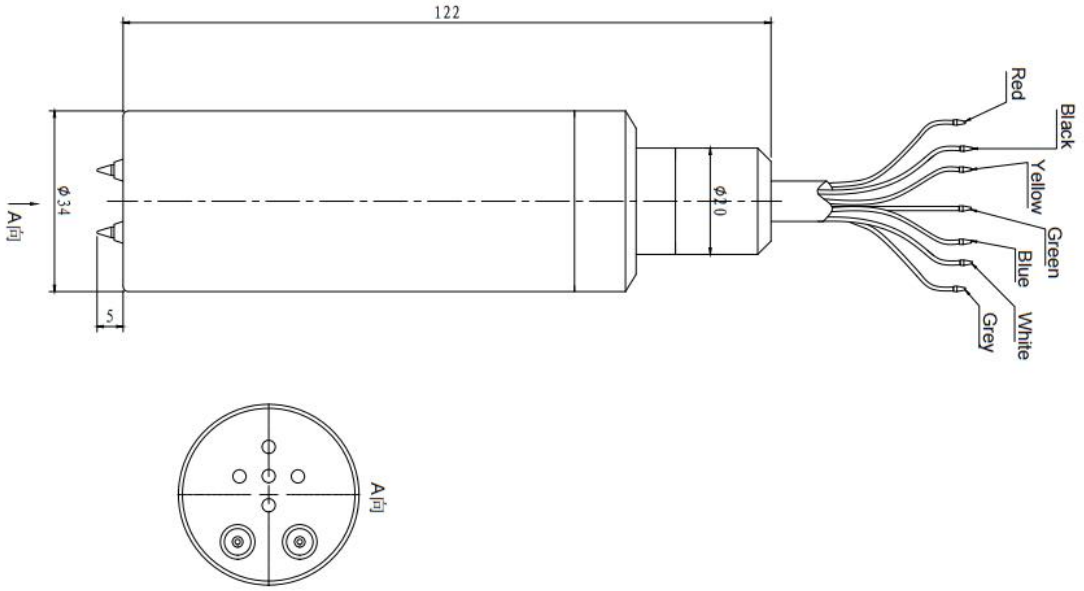
HPT604-FW has compact size, light weight and good stability; it can be used for water alarm for the diesel tanks, water position and others hierarchy liquids level and position monitor.

Specifications

Ambient Temperature: 25°C (unless otherwise specified)

PARAMETERS					
Level range	0m~0.5m…20m Optional				
Pressure Type	Gauge/Relative pressure type(Typical); Absolute pressure Optional				
Overload	150%F.S Rated				
Water Existence alarm Output	ohm, or PNP switch, or NPN switch signal output optional. Water detection signal: ohm signal (When≥100 Ω, it means that water has been detected, and 0 ohm means no water exists).				
Fuel Level Output	4~20mA	0~5V	0~10V	RS485 Modbus RTU optional	
Electrical Wire	2 wires Loop	3 wires	3 wires	4 wires	
Power Supply	DC 7...30V	DC 8...30V	DC 13...30V	DC 7...30V	
Polarity protection	Yes	Power supply+&- only		Power supply+&-; Signal A&B only	
Accuracy	0.5	0.25	0.1	%FS	By Customized
Long-term Stability	0.15%FS/year				
Zero temp. drift	±0.02%FS/℃				
Sensitivity temp. drift	±0.02%FS/℃				
Temperature Compensation	0~50℃(Typical); -10~60℃(by customized)				
Medium Temp.	-30...70 degree C				
Load Resistance	Current: (U-12)/0.02(Ω)				
Max work current	(4-20mA) 21.8mA	(0-5/10V) 5mA		(RS485 MODBUS RTU) 10mA	
Max signal transfer distance	1000m	200m		1000m	
Lightning&Surge protection	Surge:±2000V Air conduction more than 8000V; external sensor more than 4000 Voltage protection.				
EMC Standard	EN61326-1:2013;EN61326-2-3:2013 EN61000-6-2:2005;EN61000-6-4:2007+A1				
Intrinsic safety Certificate	Exia IICT6				
Water Proof Grade	IP68				

Dimensions and Drawing



Electrical Connections

	Signal output / Wire color	4-20mA+100Ω	RS485+100Ω	0-5V/0-10V+100Ω
Ohm signal	Red	U+	U+	U+
	Black	U-	U-	U-
	Green	Iout(U-)	RS485A	Vout
	Blue	R	RS485B	R
	Yellow	R	R	R
	Grey	⏚ Connect to earth ground	⏚ Connect to earth ground	⏚ Connect to earth ground
	White		R	

	Signal output / Wire color	4-20mA+PNP	RS485+PNP	0-5V/0-10V+PNP
PNP signal	Red	U+	U+	U+
	Black	U-	U-	U-
	Green	Iout(U-)	RS485A	Vout
	Blue	PNP+	RS485B	PNP+
	Yellow	⏚ Connect to earth ground	⏚ Connect to earth ground	⏚ Connect to earth ground
	White		PNP+	

How to Order

Use the **bold** characters from the chart below to construct a product code

604FW F G 11 S11 E5E50 D1 N 1 003

Model:
604FW

Pressure & Level Units

B	bar(Min: 0.05bar Max: 2bar)
P	Psi(Min:0.73Psi; Max:29Psi)
F	m Fuel(Min:0.5m; Max:20m)

Pressure type

G	Gage/Relative pressure type (universal)
A	Absolute pressure (customized)

Pressure Range

00	0...0.5	**18**	0...4.0
01	0...1.0	**19**	0...5.0
03	0...1.2	**21**	0...7.0
06	0...1.5	**24**	0...10
09	0...1.8	**25**	0...12
11	0...2.0	**26**	0...15
13	0...2.2	**27**	0...16
16	0...2.5	**28**	0...20
17	0...3.0	**X**	By Customized

Power supply:

S11	7-30 Vdc
S12	8-30 Vdc
S43	13-30 Vdc
X	By Customized

Signal Output

Fuel/oil level signal

E5	4-20 mA (2 wires)
E6	0-5 V (3 wires)
E7	0-10 V (3 wires)
E11	RS485 MODBUS RTU (4 wires)
X0	By Customized

Water detection signal

E50	Ohm
E51	PNP
E52	NPN
X1	By Customized

Measuring Medium

D1	0.84g/cm3 density diesel
D2	0.83g/cm3 density diesel
D3	0.85g/cm3 density diesel
D4	0.86g/cm3 density diesel
X	By Customized

Other Function (Optional)

N	Standard with water detection & fuel level
A	Water detection, fuel level & fuel temp.

Accuracy

1	≤±0.5%F.S (Typical)
2	≤±0.25%F.S
3	≤±0.1%F.S(by customized)

Cable Length

003	3 meters
X	By Customized

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