

## HPT604(Type GT) Generator Lower Fuel Tank Application

### Submersible Fuel Level Sensor



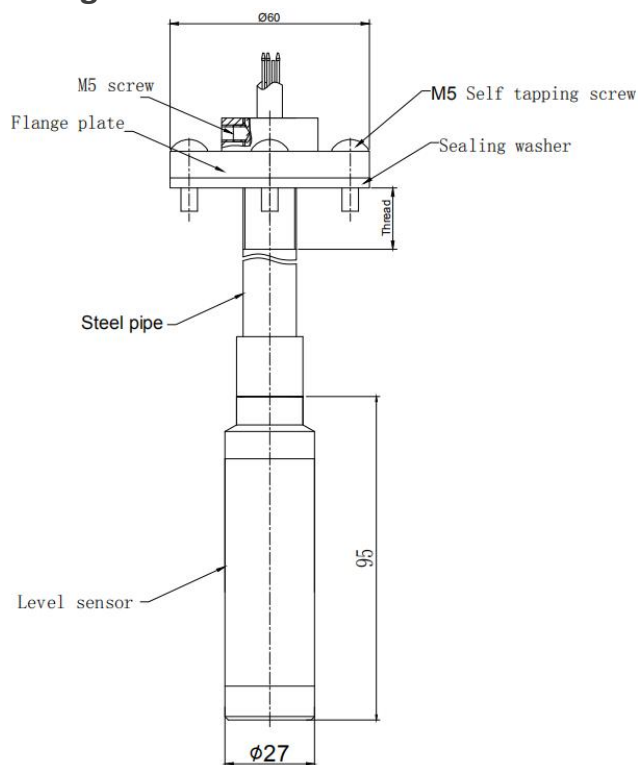
#### I . Profiles

HPT604GT series digital pressure level sensor is highly stable and reliable. It uses the U.S.A. imported GE pressure core and high accurate circuit board into the stainless steel housing. Integrated construction and standard signal provide the user easy and convenient application in the local working place. The special cable connects with housing, can be immersed into the media for a long time. HPT604 series digital pressure level transducers are a high accuracy digital and intellectual product development by HOLYKELL to meet the market needs of worldwide. HPT604-GT designed incorporating with monolithic computer technology and sensor digital conversion technology, which core component adopts 24-bit AD MCU micro-processor to ensure high quality of the transducer relaying on its strong function and high speed operation capacity. The overall designed framework is to meet the requirements of increasingly enhanced industrial site application with a view to reliability, stability, high accuracy and the product also features strong function and without manually operating device to ensure good interaction. Application digital signal processing technology is made for good disturbance immunity. It's also feature zero point automatic stable follow up capacity and temperature automatic compensation.




## II . Specifications

Parameters	HPT604 (Type GT)		
Level Range	150...2500mm by customize for RS485 Modbus 500...2500mm by customize for 4-20mA&0-5V		
Programmable	Zero point adjustable for RS485 output		
Overload	150% F.S		
Burst Pressure	500% F.S		
Accuracy (Linearity, Hysteresis, Repeatability)	≤ ±0.5%F.S(Typical); ≤ ±0.25%F.S (optional), 0.1%F.S (by customized) @25°C including non-lin., rep. and hys. optional		
Long-term Stability	≤ ±0.2%F.S/ year		
Working Temp.	-40 °C to +85°C		
Medium Temp.	-20°C to +85°C		
Storage Temp.	-40°C to +85°C		
Temp. Compensation	0°C to 50°C; -10°C to 70°C (Range > 200 kPa / 20 mH <sub>2</sub> O)		
Medium compatible	Compatible with SUS304 Stainless Steel		
Signal Output	4-20 mA	0-5 V	RS485 Modbus RTU
Power Supply	7-30 V DC	8-30 V DC	3.6-5 V DC / 8-30 V DC
Polarity Protection	The power lines feature reverse polarity protection; however, the signal lines do not have reverse polarity protection against the positive power supply and must not be cross-connected.		
Baud Rate	9600 (typical), 2400,4800,19200 on request		
Data Format	1 start bit, 8 data bits, 1 stop bit		
Odd & Even Calibration	None		
Sampling Rate	3 points/second at RS485 mode		
Resolution	1mm		
Loading Resistance	99 channels		
Insulation Resistance	>100M Ω@100V		
Zero-point Temp. Drift	0.01%FS/°C		
Electronic connection	Fixed cable with vented tube		
Power Consumption	24V: 2.8mA; 12V: 5.1mA; 5V: 10.1mA		
Mounting Type	Flange with four install holes and diameter 62mm, others by customized		
Response Time	≤20 ms(Current and voltage signals); ≤100 ms (digital signals)		
Pressure Type	Gauge pressure; Sealed gauge and absolute optional		
Certificate	ATEX (II 1G Ex ia IIC T5 Ga), TUV, RoHS and CE		
EMC Standard	EN 61326-1:2013; EN 61326-2-3:2013 EN 61000-6-2:2005; EN61000-6-4:2007+A1		
Surge & Lightning Protection	Surge ±2000V (digital); Air discharge ±8000V; contact discharge ±6000V		
IP Rating	IP68		

**III. Dimension and Drawing**



**IV. Electrical Wires Connection**

		Cable-out	
	Current	Red	U+
		Green	Iout(U-)
		Yellow	⊥ Connect to earth ground
	Voltage	Red	U+
		Green	Vout
		Yellow	⊥ Connect to earth ground
		Black	U-
	RS485 RTU Modbus	Red	U+
		Black	U-
		Green	RS485A
		Blue	RS485B
		Yellow	⊥ Connect to earth ground






V . Part Number Selection Table

604	GT	Submersible Pressure Fuel Level Sensor											
		Code	Pressure & Level Range										
		00	0...0.5 m					02	0...2 m				
		01	0...1 m					X	By customized				
		Code	Pressure & Level Units										
		H	m H2O										
		F	m Fuel										
		Code	Pressure type										
		G	Gauge/Relative pressure type (universal)										
		Code	Power Supply										
		S12	8-30 V DC	S62	3.6-5 V DC	S11	7-30 V DC	X	Customized				
		Code	Signal Output										
		E11	RS485 Modbus	E5	4-20mA	E6	0-5V						
		X	Customized										
		Code	Measuring Medium										
		CW	Water			G0	petrol, density 0.72						
		D0	Diesel, density 0.83			G2	petrol, density 0.725						
		D1	Diesel, density 0.84			G5	petrol, density 0.737						
		D3	Diesel, density 0.85			X	Others by customized						
		Code	Probe Length Selection										
		L23	23cm (13cm≤Tank Height≤30cm)										
		L43	43cm (30cm≤Tank Height≤50cm)										
		L68	68cm (50cm≤Tank Height≤75cm)										
		L93	93cm (75cm≤Tank Height≤100cm)										
		X	by customized										
		Code	Blind Zone Of Sensor										
		B	5 mm (Flat Filter)										
		Code	Accuracy										
		1	≤±0.5%F.S										
		2	≤±0.25%F.S										
		3	≤±0.1%F.S										
		Code	Cable Length										
		002	2 meters										
		X	By customized										
604	GT	00	F	G	S11	E5	D1	L23	B	2	002	Remarks	

Example Part No.: 604GT00FGS11E5D1L23B2002

(Model: HPT604, type GT, fuel level range 0-0.5m 0.84g/cm3, gauge type, 7-30 V DC, 4-20mA, probe length 23cm, 0.25%F.S accuracy and with 2 meters cable)

## Accessories List

Items Name	Picture	Specifications	P/N	Qty	Remarks
Adjustable Pipe		Length: 23cm Materials: steel or aluminum Suitable for tank height span: 13...30cm	AP023	1pc	Pipes spec according to order P/N and each one sensor with 1pcs pipe, 1pc flange, 1pc fix screw, 1pc O-ring and 4pcs screws.
		Length: 43cm Materials: steel or aluminum Suitable for tank height span: 30...50cm	AP043	1pc	
		Length: 68cm Materials: steel or aluminum Suitable for tank height span: 50...75cm	AP068	1pc	
		Length: 93cm Materials: steel or aluminum Suitable for tank height span: 75...100cm	AP093	1pc	
Flange		Size: 60mm diameter with 4 holes Material: Nylon With a fix screw hole	0022	1pc	
Pipe fix screw		Size: M5 Material: stainless steel Use for fix pipe and flange	0025	1pc	
Sealing O-ring		Size: Diameter 60mm with 4 holes Material: NBR Use for sealing flange and tank top	0023	1pc	
Mounting Screws		Size: M4.8 Material: stainless steel Use for fix flange and tank top	0026	4pcs	