

TECHNOLOGY

HOLYKELL®

HPT675S
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

HPT675S Self-contained Water Level Recorder



Features:

- ★ No cable leading out, strong underwater sealing;
- ★ High quality and high stability pressure sensor;
- ★ Internal battery & memory collect and store data regularly;
- ★ Low power consumption: energy saving design of power management, standby power consumption <math>< 5 \mu A</math>, acquisition power consumption 3mA;
- ★ Full-parameter: real time monitoring of water level, temperature, pressure, battery power, time and other factors at the same time;
- ★ Atmospheric pressure compensation mode is adopted;
- ★ Temperature compensation: full range digital calibration, and temperature error compensation in full temperature zone;
- ★ Electrical characteristics of sensor: over-voltage protection, surge voltage protection and power polarity reverse connection protection to avoid electrical damage caused by misoperation.

Applications:

- ★ Monitoring of groundwater level and temperature data
- ★ Flood control level monitoring in city
- ★ Real time monitoring of reservoir and dam water level
- ★ Monitoring of lake and surface runoff level
- ★ Unattended hydrological monitoring station
- ★ Real time monitoring of liquid level in tank
- ★ On site liquid level monitoring of industrial control system

Profile

HPT675S self-contained water level recorder is a groundwater monitoring instrument powered by internal battery, which can be used to record water depth (pressure) and temperature for a long time. It's made of stainless steel or titanium alloy, The water level recorder includes water level and temperature sensors, built-in large capacity flash memory and long-life lithium battery. All functions are integrated to a 26mm diameter metal shell instrument, suitable for surface water, groundwater and marine environment water level and temperature measurement.

It's widely used in petroleum, chemical industry, power station, water conservancy, city flood control and city water supply and drainage, etc.

Specifications

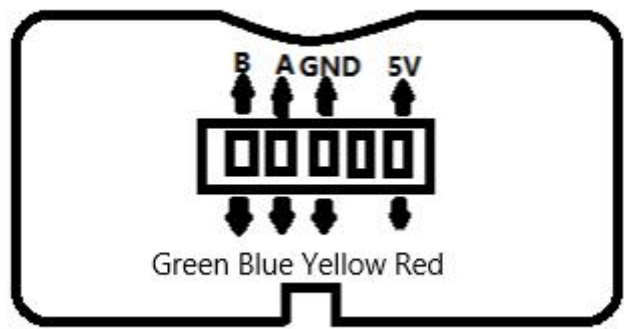
| Model | HPT675S |
|-----------------------------|--|
| Parameter | |
| Pressure Range | 0~10m H ₂ O...0~200m H ₂ O |
| Overload | 200% F.S. |
| Burst Pressure | 300% F.S. |
| Level Accuracy | 0.05%F.S(0~50℃) |
| Level resolution | 1mm |
| TEMP. accuracy | ±0.5℃ |
| TEMP. resolution | 0.1℃ |
| Stability | 0.05%F.S/year |
| Operating temperature | -10~80℃ |
| Temp. compensation range | 0~50℃ |
| Battery life | 10 years (once/60 min) |
| Memory capacity | >40000 pcs records(+water temp.+battery voltage+time) |
| Real-time clock | <±5 min/year |
| Supply voltage | External voltage:5-30Vdc(typical 24V); Internal battery: 2.7-3.6Vdc |
| Power protection | Protection against reverse connection,and against 2KV surge and over voltage |
| Output | RS485 / MODBUS-RTU protocol, through the reader to download data to the computer |
| Measuring medium | Compatible with 316L stainless steel and fluororubber |
| Protection class | IP68 |
| Shell material | 316L stainless steel, titanium alloy, optional |
| Hoisting steel wire | 304 stainless steel or 316L stainless steel |
| Protection Grade | IP68 |
| Ambient vibration | Bear the vibration test specified in GB / T9359 |
| Free fall | Withstand the drop test specified in GB / t9359 |
| Electromagnetic environment | Comply with GB / t17626.8 Level 3 |
| Mean time between failures | Not less than 30000h |

Dimension and Drawing



Electronic Connections

| Color | Definition |
|--------|------------|
| Green | RS485- |
| Yellow | GND |
| Blue | RS485+ |
| Red | 24V+ |



Order Codes Selection Table

| 675S | Self-contained submersible level logger | | | | | |
|-------------|---|-----------------------------------|--|---------------------------------------|-----------------|-----------------------|
| Range code | Pressure range | Ref. | Range code | Pressure range | Ref. | |
| 01 | 0....0.1 Bar/0-1mH ₂ O | G | | | | |
| 02 | 0....0.2 Bar/0-2 mH ₂ O | G | 15 | 0....3.5 Bar / 0-35 mH ₂ O | G/A | |
| 03 | 0....0.3 Bar/0-3 mH ₂ O | G | 16 | 0....4 Bar / 0-40 mH ₂ O | G/A | |
| 04 | 0....0.4 Bar/0-4 mH ₂ O | G | 17 | 0....4.5 Bar / 0-45 mH ₂ O | G/A | |
| 05 | 0....0.5 Bar/0-5 mH ₂ O | G | 18 | 0....5 Bar / 0-50 mH ₂ O | G/A | |
| 06 | 0....0.6 Bar/0-6 mH ₂ O | G | 19 | 0....5.5 Bar / 0-55 mH ₂ O | G/A | |
| 07 | 0....0.7 Bar/0-7 mH ₂ O | G | 20 | 0....6 Bar / 0-60 mH ₂ O | G/A | |
| 08 | 0....0.8 Bar/0-8 mH ₂ O | G | 21 | 0....7 Bar / 0-70 mH ₂ O | G/A | |
| 09 | 0....0.9 Bar/0-9 mH ₂ O | G | 22 | 0....8 Bar / 0-80 mH ₂ O | G/A | |
| 10 | 0....1 Bar/0-10 mH ₂ O | G/A | 23 | 0....9 Bar / 0-90 mH ₂ O | G/A | |
| 11 | 0....1.5 Bar / 0-15 mH ₂ O | G/A | 24 | 0....10 Bar / 0-100 mH ₂ O | G/A | |
| 12 | 0....2 Bar / 0-20 mH ₂ O | G/A | 25 | 0....20 Bar / 0-200 mH ₂ O | G/A | |
| 13 | 0....2.5 Bar / 0-25 mH ₂ O | G/A | | | | |
| 14 | 0....3 Bar / 0-30 mH ₂ O | G/A | X | Customized | | |
| | Code | Pressure type | | | | |
| | A | Absolute pressure (standard type) | | | | |
| | | Code | Power Supply | | | |
| | | S24 | 3.6Vdc Internal battery | | | |
| | | S25 | 5-30Vdc (typical 24V) external voltage | | | |
| | | X | Other customized | | | |
| | | | Code | Signal Output | | |
| | | | E11 | RS485/MODBUS-RTU | | |
| | | | X | By Customized | | |
| | | | | Code | Accuracy | |
| | | | | 6 | ±0.05%F.S | |
| | | | | 3 | ±0.1%F.S | |
| | | | | X | By Customized | |
| 675S | 25 | A | S25 | E11 | 3 | Others remarks |