

HR8008 Ceramic Submersible Water level Transmitter

HR8008 water Level transmitter is one kind of pressure water level gauge which is used for long-term monitoring surface water, groundwater level and water temperature. The transmitter adopts the ceramic pressure-sensitive element, with the features of high stability, high precision and over load ability. With mixed signal processing technology and unique compensation methods to realize high precision digital pressure measurement, F S digital linearity correction, full temperature digital temperature compensation, compensation data stored in nonvolatile memory, multiple safety protection system to avoid the products cannot be used due to correction data lost; Circuit part with power and watchdog monitor, which improve the reliability and avoid accident such as crash or program down.

Features

- Dry ceramic pressure-sensitive element, with long-term stability;
- With strong over load, anti-corrosion;
- High precision up to 0.05%;
- With both water level and temperature ;
- FS digital calibration and temperature compensation ;
- RS485 interface and MODBUS-RTU standard protocol;
- Reverse power protection, over voltage protection;
- Anti-surge, electromagnetic interference;
- Full stainless steel sealed construction, IP68 protection.

Specification

Main Specification	
Accuracy	$\pm 0.25\% \text{ F} \cdot \text{S} (0 \sim 2 \text{ mH}_2\text{O}) ; \pm 0.05\% \text{ F} \cdot \text{S} (0 \sim 10 \text{ mH}_2\text{O})$
Range	0~0.5 mH ₂ O... 10mH ₂ O
Long-term stability	<0.05%F·S/year
Overload capability	5X F·S
Temp. Accuracy	$\pm 0.2 \text{ }^\circ\text{C} (0 \sim 70 \text{ }^\circ\text{C})$
Temp. Resolution	0.05°C

Temperature characteristics	
Compensation temp.	0~70°C
Operating temp.	-10~80°C
Drift of temp.	Zero: <0.005%F.S/°C
	F.S: <0.005%F.S/°C
Storage temp.	-40~125°C
Electrical characteristics	
Power Supply	DC9 ~ 30V (typ.24V)
Power Protection	Anti-reverse connection, over voltage protection
Output method	RS485/MODBUS-RTU protocol : 128 nodes or 4~20mA
Structural characteristics	
Sensor material	Alumina ceramic gold plating
Housing material	Stainless steel316L or titanium alloy
Cable material	Polyurethane or PVC optional
Cable	Φ7.6m, with Shielding layer and guide hole, length customized
Environmental characteristics	
Protection level	IP68
Insulation	100MΩ@50V

Power supply and RS485 connection definition

NO.	Color	Definition
1	Red	24V+
2	Blue	RS485+
3	Green	RS485-
4	Yellow	GND

Outline Construction: (Unit: mm)

Order guide

HR8008	Submersible Water level Transmitter			
	Range	0 ~ 5 mH ₂ O		
	[0~X] mH ₂ O L	X-Water level range, L-cable length		
		Code	Output Signal	
		E	4-20mA	
		Q	RS485-RTU	
			Code	Others
		F1	Fixed flange	
	LM	Limit current		
HR8008	[0 ~ 2] mH ₂ O5	E	F1	Full model example