

SPT21WC Cost Effective Level Transmitter

Features

- Stable and reliable performance, easy to operate
- Short-circuit protection and reverse polarity protection
- Compact size and light weight
- Available in gauge pressure, absolute pressure, and sealed gauge pressure types
- Supports range conversion using our company's debugger

Applications

- Petroleum and petrochemical industry
- Electric power
- Mechanical manufacturing
- Hydraulic and pneumatic control
- Pipeline systems
- Hydrology and water resources



Introduction

SPT21WC is a fully sealed submersible level transmitter. This product consists of a long-term stable and reliable pressure sensor, a high-precision dedicated circuit, and a high-standard stainless steel housing. The integrated structure and standardized signal provide convenience for on-site use and automated control. The dedicated cable is hermetically connected to the housing, allowing long-term submersion in liquids compatible with the transmitter's structural materials.

The SPT21WC level transmitter is compact, lightweight, and offers good stability, making it suitable for water or liquid level measurement and control in various applications.

Specification

Range	0mH ₂ O~1mH ₂ O...200mH ₂ O
Over pressure	≤2 times full scale pressure
Pressure type	Gauge/absolute
Accuracy	see Accuracy definition
Long term stability	≤±0.2%FS/year
Offset thermal drift	0.05%FS/°C (≤10mH ₂ O); 0.03%FS/°C (> 10mH ₂ O)
Span thermal drift	0.05%FS/°C (≤10mH ₂ O); 0.03%FS/°C (> 10mH ₂ O)
Operating temperature	-10~80°C
Storage temp.	-40~100°C
Housing protection	IP68

Accuracy(Test condition: Environment temperature: $25\pm 5^{\circ}\text{C}$ Relative humidity: 45%~75%)

Pressure Type	Range	Accuracy
Gauge (G)	$0\text{mH}_2\text{O}\sim 10\text{mH}_2\text{O}<X<3.5\text{mH}_2\text{O}$	$\pm 1\%\text{FS}$
	$3.5\text{mH}_2\text{O}\leq X\leq 10\text{mH}_2\text{O}$	$\pm 0.5\%\text{FS}$
	$10\text{mH}_2\text{O}\leq X\leq 200\text{mH}_2\text{O}$	$\pm 0.25\%\text{FS}$
		$\pm 0.5\%\text{FS}$ (default)
Absolute (A)	$0\text{mH}_2\text{O}\sim 7\text{mH}_2\text{O}<X\leq 10\text{mH}_2\text{O}$	$\pm 1\%\text{FS}$
	$10\text{mH}_2\text{O}<X\leq 200\text{mH}_2\text{O}$	$\pm 0.5\%\text{FS}$

Output Signals

2-wire current	4~20mA
3-wire voltage	DC 0~10V
	DC 0~5V
	DC 1~5V
	DC 0.5~4.5V
	DC 0.5~2.5V
	DC 0.1~2.1V
3-wire voltage ratiometric	DC 0.5~4.5V
RS485	

For other output requirements, please contact us.

Power Supply

Output signals	Power supply	
	Default	Optional
4~20mA	DC 11~28V	DC 8~32V
DC 0~10V	DC 11~28V	DC 11~32V
DC 0~5V	DC 11~28V	DC 11~32V
DC 1~5V	DC 11~28V	DC 11~32V
DC 0.5~4.5V	DC 5V $\pm$ 0.1V	DC 8~32V
DC 0.5~2.5V	DC 5V $\pm$ 0.1V	DC 8~32V、DC3.3V
DC 0.1~2.1V	DC 5V $\pm$ 0.1V	DC 8~32V、DC3.3V
DC 0.5~4.5V(ratiometric)	DC 5V $\pm$ 0.5V	/
RS485	DC 11~28V	DC 5V

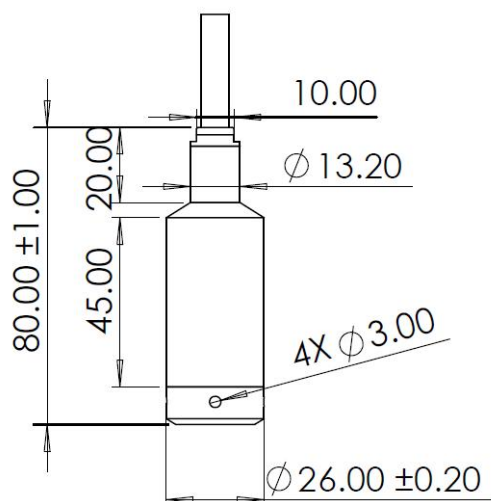
Load Resistance(Ω)

Current output	$\leq (\text{power supply}-11\text{V}) / 0.02\text{A}$
Voltage output	$\geq 10\text{k}$

Material

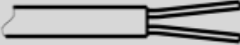
Housing	SS304/SS316L
Diaphragm	SS316L
Cable	PE/PUR/PVC/PTFE

Outline Dimension (unit: mm)



Please contact us if you request anything else.

Electrical Connection

Venting Cable				
		2-wire	3-wire	4-wire (RS485)
	U _B	RED	RED	RED
	0V	GREEN	BLACK	BLACK
	S+	-	YELLOW (GREEN)	-
	RS485A	-	-	YELLOW
	RS485B	-	-	GREEN

Optional accessories

Name	Shape	Description
STS01 Multifunctional Transmitter Debugging Tool		ower supply : 220VAC Features : 4.5-inch LCD screen, touch buttons Functions : testing, calibration, zeroing, range migration, unit conversion

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		Operating Instructions Operating Video
SD01 loop powered display		Display range -1999~9999 Input: 2-wire 4~20mA Output: 2-wire 4~20mA

Order Information

SPT21WC	Cost Effective Level Transmitter									
	Range	0~200mH ₂ O								
	[0~X mH ₂ O] L	X: the actual measured pressure, cable length suggested L-X=(1~2)m								
		Code	Output signal							
		E	4~20mADC	2 wire						
		J	0~5VDC	3 wire						
		V	0~10VDC	3 wire						
		R	RS485	4 wire						
				Construction material						
			Code	Diaphragm			Housing			
			22	SS316L			SS304			
			24	SS316L			SS316L			
			26	titanium			titanium			
				Code	其他					
				1	Accuracy±0.25%FS					
				2	Accuracy±0.5%FS					
					D1	Diameter 26mm				
						X1	Mounting Hooks			
						X2	Waterproof Junction Box			
SPT21WC	[0~1mH ₂ O]	E	22	1	D1	X1	the whole spec			

Selection Tips

1. For product accuracy, please refer to the "Accuracy Parameters" on page 2.
2. The default sealing ring material for the product is fluororubber (FKM), with a minimum operating temperature of -20°C. If the product operating temperature is below -20°C, the temperature range must be noted in the order. Alternative sealing solutions are available upon request, such as EPDM sealing rings with a minimum operating temperature of -40°C.
3. When ordering, please note that for products with 5VDC/3.3VDC power supply, if the cable is connected via lead-out wiring, the cable length should be less than 10m.
4. If accessories are required, please consult our company and specify them in the order.
5. If the ordered product requires a metrological verification certificate or has other special requirements, please consult our company and specify them in the order.

Contact

A: 2nd Floor, Building No.A2, Western sensor park, No.30 Jiangtan Xi Road, Baoji 721004, Shaanxi, China

Tel: +86 917 3652001

Fax: +86 917 3652001

Email: kenny@sirelectro.com

Web: www.sirelectro.com