

SIER ELECTRONICS CO., LTD

SPT21S Anti-corrosive Pressure Transmitter

Features

- Integrated construction, unnecessary to do outer adjustment
- High-performance ceramic sensing element
- Resistance to strong acids, alkalis, and other highly corrosive liquids
- Multi-protection design with enhanced durability
- High reliability and stability

Applications

- Chemical industry
- Pharmaceutical industry
- Water treatment industry
- Oil and gas industry
- Food and beverage industry
- Laboratory and scientific research



Introduction

SPT21S is pressure transmitter with special material for anti-corrosive application. It is made by ceramic diaphragm sensing element and high accurate circuit board into the PTFE wetted parts. Integrated construction and standard signal provide the user easy and convenient application in the local working place. SPT21S pressure transmitter is suitable for pressure/level measurement of corrosive liquid.

Specification

Range	0~0.3...30bar	
Over pressure	2 times FS	
Accuracy	see Accuracy definition	
Stability	$\leq \pm 0.2\% \text{FS/year}$	
Thermal drift(range > 1bar)	0.02%FS/°C (offset)	0.05%FS/°C (span)
Thermal drift(range ≤ 1bar)	0.02%FS/°C (offset)	0.05%FS/°C (span)
Application temp. range	-10~80°C	
Storage temp. range	-40~100°C	

Accuracy

(Test condition: Environment temperature: 25±5°C Relative humidity: 45%~75%)

SPT21S Anti-corrosive Pressure Transmitter Datasheet

Pressure Type	Range	Accuracy
Gauge (G)	0bar~0.1bar<X<0.35bar	±1%FS
	0.35bar≤X≤35bar	±0.5%FS (default)
		±0.25%FS

Output Signals

2-wire current	4~20mA
3-wire current	4~20mA (default)
	0~20mA
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 proportional voltage	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±0.1V	DC 8~32V
DC 0.5~2.5V	DC 5V±0.1V	DC 8~32V、DC3.3V
DC 0.1~2.1V	DC 5V±0.1V	DC 8~32V、DC3.3V
DC 0.5~4.5V (proportional output)	DC 5V±0.5V	/

Load Resistance(Ω)

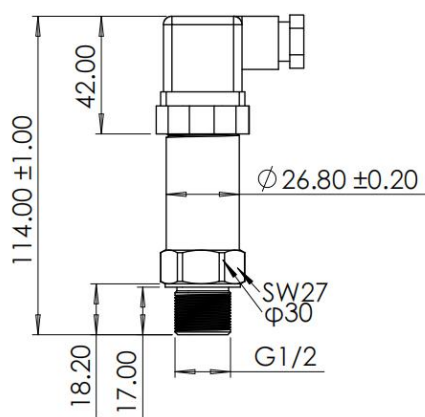
Current outout	≤ (power supply-11V) /0.02A
Voltage output	≥10k

Material

Housing	SS304
Wetted parts	PTFE
Diaphragm	Ceramic
O-ring	FKM
Connector	Glass Fiber Nylon

Outline Dimension (Unit:mm)

Hirschmann 4-pole plug-in type



Electrical Connection

Hirschmann			
		2-wire	3-wire
	U _B	1	1
	0V	2	2
	S+	-	3

Description

UB : Power +

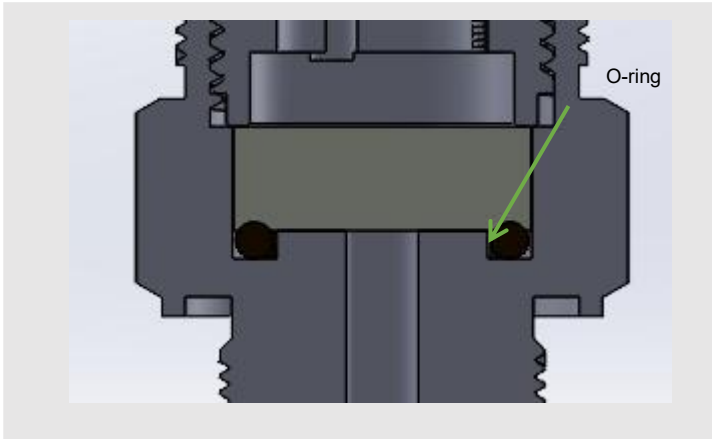
0V : Power -

S+ : Analog output

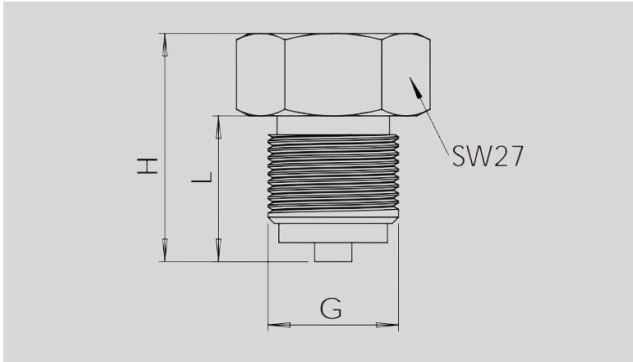
Sensor Sealing

O-ring Sealing

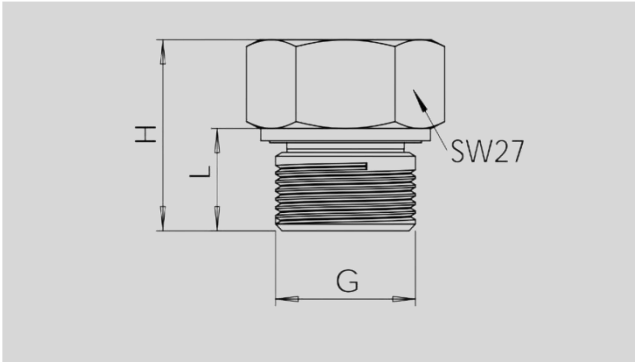
(O-ring material : fluorine rubber, ethylene propylene diene monomer, nitrile rubber)



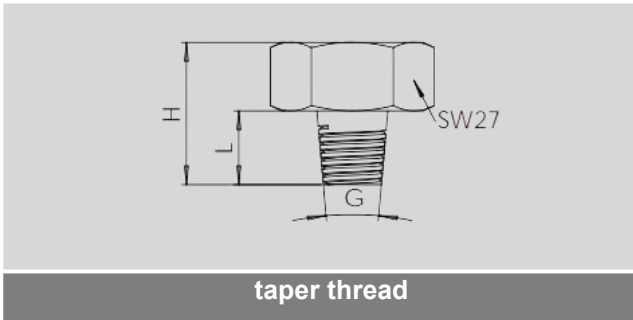
Process connection(Unit:mm)



EN837		
G	H	L
G _{1/8}	20	10
G _{1/4}	25	15
G _{3/8}	26	16
G _{1/2}	36	23
M20X1.5	36	23



straight thread		
G	H	L
G _{1/4}	28	15
G _{1/2}	28	15
M14X1.5	28	15
M20X1.5	28	15

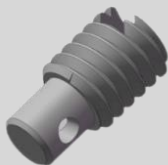


taper thread

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G	H	L
NPT _{1/8}	23	10
NPT _{1/4}	28	15
NPT _{1/2}	34	18
R _{1/4}	27	14
R _{3/8}	28	15
R _{1/2}	32	19
PT _{1/4}	27	14
PT _{3/8}	28	15
PT _{1/2}	32	19

Optional accessories

Name	Shape	Description
Damper		Material : copper or stainless steel Uses : Reduce the effects of cavitation, liquid hammer and pressure peak on the sensor in air or liquid with flow rate changes.
STS01 calibrator		Power supply : 220VAC Features : 4.5-inch LCD screen, touch buttons Functions : testing, calibration, zeroing, range migration, unit conversion   Operating Instructions Operating Video
SPT-LCD display		Display : 4 + 1 / 2 digit display Input : 2-wire 4 ~ 20mA Output : 2-wire 4 ~ 20mA Optional with control function

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SPT-LED display		Display : 4 + 1 / 2 digit display Input : 2-wire 4 ~ 20mA Output : 2-wire 4 ~ 20mA Optional with control function
SD01 loop powered display		Display range -1999~9999 Input: 2-wire 4~20mA Output: 2-wire 4~20mA
M12 plug-in cable		thread M12×0.75

Order Guide

SPT21S		Anti-corrosive Pressure Transmitter			
	Range		0~0.3...30bar		
	[0~X] bar		X: the actual measured pressure		
			Code	Output signal	
			E	4~20mADC	
			J	0~5VDC	
			V	0~10VDC	
			R	RS485 interface	
				Code	Process connection
				C2	G1/4 male thread
			C3	G1/2 male thread	
SPT21S	[0~1bar]	E	C2	the whole spec	

Ordering Notes

Please pay attention that the medium should be compatible with the contacted parts;

1. When the product is used in thunder storm area, we suggest the user to use protection device to protect the product and power grounding reliably;
2. For special requirement, please feel free to contact us.

Contact

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