Sensor Co.,LTD

PRODUCT OVERVIEW

PRESSURE MEASUREMENT

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PF100 Intrinsically Safe Explosion-proof Pressure Transmitter

Characteristics

☆High accuracy up to 0.2%F.S
☆Sputtered film ensures long-term stability ≥±0.2%FS/year
☆No oil filling, not causing thermal instability or leaks
☆Wide selection range, from 0.5MPa to 250MPa
☆Reverse polarity protection
☆Accuracy guaranteed within the temperature -40℃ to 105℃
☆All welded stainless steel construction, no glue, less creep
☆IP65, IP67 degree of protection

Applications

☆Ships
☆Refining
☆Oil drilling
☆Chemical industry
☆Gas network
☆Oil pipeline
☆Coal
☆Inflammable and explosive industry

Profiles

PF100 intrinsically safe explosion-proof pressure transmitter is packaged with a metal-based pressure-sensitive chip. The wetted parts are made of 17-4PH stainless steel material. We provide a variety of electrical and pressure connections. The manufacturing process adopts the most advanced automation equipment and ensure consistent sensor quality and performance.

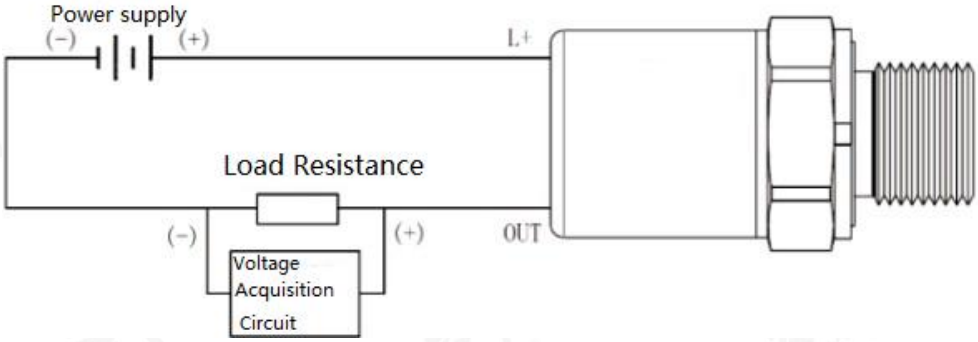
The pressure sensor adopts an all-welded stainless steel compact design, which can effectively protect the sensor under harsh working conditions. Its solid internal structure design ensures that the sensor can work normally in a high-vibration environment.

PF100 features strong long-term fatigue resistance, wide temperature range, and shock-resistance and high reliability. It can perform accurate measurement even under the harshest conditions, and is suitable for pressure measurement of various gases and liquids. The pressure transmitter is compact and ideal for tight space installation applications in hazardous areas.

Specifications

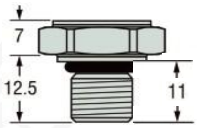
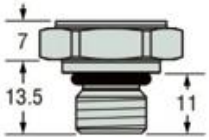
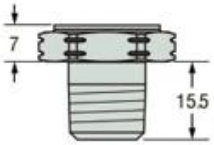
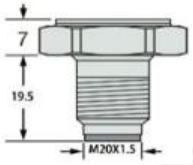
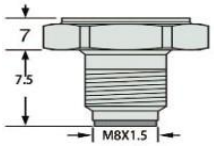
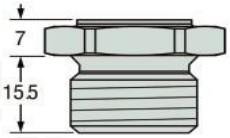
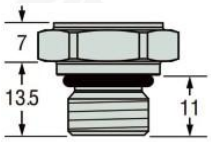
Parameter	PF100								
Measuring range(MPa)	0.5-2.5	4-10	16-40	60	70	100	120-180	200	250
Overload pressure	200%	200%			150%				≤300MPa
Burst pressure	2000%	2000%	1000%	≤400MPa	≤400MPa				
Accuracy	±0.2%F.S,±0.5%F.S ,±1%F.S								
Long-term stability	±0.2%F.S/year								
Output	4-20mA								
Power Supply	24VDC								
Zero point temperature drift	±0.1%F.S/10℃								
Full range temperature drift	±0.3%F.S/10℃								
Load	For current output: RL≤50×(Vcc-8)Ω								
Response time	≤1ms								
Durability	10^7 pressure circles								
Insulation resistance	≥1000MΩ/500VDC								
Sensitive component material	17-4PH								
IP rating	IP65, IP67								
Explosion-proof grade	Ex ia llC T6 Ga								
Medium temperature range	-40~+105℃								
Ambient temperature range	-40~+105℃								
Storage temperature range	-40~+105℃								
Random vibration	20g, GB/T2423.56-2006								
Sinusoidal vibration	14.1g,GB/T2423.10-2008								
Shock	50g,11ms, GB/T2423.5-1995								
EMC-electromagnetic field radiation immunity	GB/T 17626.3-2016								
EMC-electrostatic discharge immunity	GB/T 17626.2-2018								

Wiring

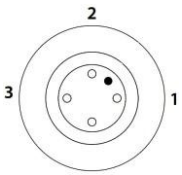
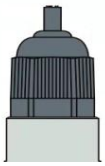


For current output

Pressure Connections

Code	G2	M3	G1	G5	M6
Overall dimensions	 G1/4-19	 M12x1.5	 G1/8	 G1/4-19A	 M20X1.5
Code	M1	G4	M4	N2	
Overall dimensions	 M8X1.25 female	 G1/2	 M14X1.5	 NPT1/4	

Electrical Connections

Code	01	02
Port form	M12X1 	Direct cable outlet 
Pin definition	Current	Current
	1:Power + 2:Loop 3:/ 4:/	Red:Power Black:Loop

Order Information

Item / PF100 (Model)	01	A	S3	G2	055	1
Electrical Connection	01=M12X1 02=Direct cable outlet					
Output	A= 4-20mA					
Power Supply	S3=24Vdc					
Pressure connection	G2=G1/4-19 M6=M20X1.5 G1=G1/8 G4=G1/2 M1=M8X1.25 female	N2=NPT 1/4 M3=M12X1.5 G5=G1/4-19A M4=M14X1.5				
Pressure Measurement	055=0.5 MPa 255=2.5 MPa 106=10 MPa 406=40 MPa 107=100 MPa 167=160 MPa 257=250 MPa	105=1 MPa 046=4 MPa 166=16 MPa 606=60 MPa 127=120 MPa 187=180 MPa	165=1.6 MPa 066=6 MPa 256=25 MPa 706=70 MPa 147=140 MPa 207=200 MPa			
Accuracy	0=1%F.S	1=0.5%F.S	7=0.2%F.S			

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