

PRODUCT OVERVIEW

PRESSURE MEASUREMENT

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PF611/612/613 Sputtered Thin Film

Rail Pressure Sensor



Characteristics

☆ High accuracy up to 0.5%F.S
☆ Wide range, high pressure resistance
☆ Good long-term stability, high reliability, fast response
☆ 17-4PH stainless steel material, corrosion resistant
☆ Low temperature drift
☆ Wide working temperature range -40~140°C

Applications

☆ Common Rail Diesel Injection System
 ☆ Common Rail Gasoline Direct Injection System
 ☆ New Energy Vehicle Rail
 ☆ Rail Transportation
 ☆ Industrial Machinery
 ☆ Automotive Industry

Profiles

PF611, 612, 613 rail pressure sensors are packaged with metal-based pressure-sensitive chip, which provides reliable pressure measurement even in harsh environments.

The product is designed with integrated fully-weld stainless steel structure and has good long-term stability, wide temperature range and high accuracy. Its electrical connector is IP65 rated and has durable internal structure design.

The product is installed on the common rail tube, which can accurately determine the real-time fuel pressure on the common rail system in the shortest time, and convert the fuel pressure in the rail to voltage signal and transmit to ECU at the same time to realize the stable control of injection precision and injection timing.

Specifications-PF611

Parameter	PF611
Measuring range(MPa)	0~200MPa
Accuracy	0.5%F.S, 1%F.S
Long-term stability	±0.2%F.S/year
Zero point drift	$\pm 0.1\%$ F.S/10 $^{\circ}$ C or by customized
Full scale temperature drift	$\pm 0.3\%$ F.S/10 $^{\circ}$ C or by customized
Durability	10 ⁷ pressure cycles
Safety pressure	250MPa
Burst pressure	300MPa
Supply voltage	5VDC±0.25VDC
Insulation resistance	≥1000M Ω /500VDC
Output	20%-84%Vpwr
Load resistance	200K Ω (Pull-up resistors)
Sensitive element material	17-4PH
Pressure connection	M18X1.5(or by customized)
Electrical connection	AMP connector, BOSCH connector, MLK connector
Protection class	IP65
Operating temperature range	-40~140℃
Storage temperature range	-40~140℃
Random vibration	10g,GB/T2423.56-2006
Sine vibration	30g,GB/T2423.10-2008
Shock	30g,11msGB/T2423.5-1995
EMC-electromagnetic field radiation immunity	GB/T 17626.3-2016

Dimensions-PF611









Specifications-PF612

Parameter	PF612
Measuring range(MPa)	0~45MPa
Accuracy	0.5%FS(-40~100℃), 1%FS(100~140℃)
Long-term stability	±0.2%F.S/year
Zero point drift	$\pm 0.1\%$ F.S/10 $^{\circ}$ C or by customized
Full scale temperature drift	$\pm 0.3\%$ F.S/10 $^{\circ}$ C or by customized
Durability	10 ⁷ pressure cycles
Load pressure	200%
Burst pressure	300%
Supply voltage	5VDC±0.25VDC
Insulation resistance	≥1000M Ω /500VDC
Output	10%-90%Vpwr
Sensitive element material	17-4PH
Pressure connection	M10X1-6g (or by customized)
Electrical connection	AMP connector, BOSCH connector, MLK connector
Protection class	IP65
Operating temperature range	-40~140°C
Storage temperature range	-40~140℃
Random vibration	10g,GB/T2423.56-2006
Sine vibration	30g,GB/T2423.10-2008
Shock	30g,11msGB/T2423.5-1995
EMC-electromagnetic field radiation immunity	GB/T 17626.3-2016

Dimensions-PF612



Specifications-PF613

Parameter	PF613
Measuring range(MPa)	0.05~1MPa
Accuracy	0.5%F.S
Long-term stability	±0.2%F.S/year
Zero point drift	±0.1%F.S/10 $^{\circ}$ C or by customized
Full scale temperature drift	$\pm 0.3\%$ F.S/10 $^{\circ}$ C or by customized
Durability	10 ⁷ pressure cycles
Load pressure	200%
Burst pressure	300%
Supply voltage	5VDC±0.25VDC
Insulation resistance	≥1000M Ω /500VDC
Output	0.5~4.5±0.08
Sensitive element material	17-4PH
Pressure connection	M12X1.5-6g (or by customized)
Electrical connection	AMP connector, BOSCH connector, MLK connector
Protection class	IP67
Operating temperature range	-40~125℃
Storage temperature range	-40~125℃
Random vibration	10g,GB/T2423.56-2006
Sine vibration	30g,GB/T2423.10-2008
Shock	30g,11msGB/T2423.5-1995
EMC-Electromagnetic field radiation immunity	GB/T 17626.3-2016

Dimensions-PF613







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Order Information

PF611 (Model) Item) 1		1	S6	M18	10	1	
Electrical Connection	1=AMP connector 2=BOSCH connector 3=MLK connector							
Output	1=20%-84%Vpwr							
Power Supply	S6=5Vdc±0.25VDC	2						
Process connection	M18=M18X1.5 X=By customized							
Pressure Measurement	01=10MPa 02=20Mpa 10=200MPa							
Accuracy	1=0.5%F.S	0=1.0%F.S						

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PF612 (Model) Item	1		2	S6	M10	05	1	
Electrical Connection	1=AMP connector 2=BOSCH connector 3=MLK connector							
Output	2=10%-90%Vpwr							
Power Supply	S6=5Vdc±0.25VDC							
Process connection	M10=M10X1-6g X=By customized							
Pressure Measurement	01=10MPa 02=20Mpa 05=45MPa							
Accuracy	1=0.5%F.S	0=1.0%F.S						

PF613 (Model Item) 1	1	1	M12	11	1	
Electrical Connection	1=AMP connector 2=BOSCH connector 3=MLK connector						
Output	1=0.5-4.5V						
Power Supply	S6=5Vdc \pm 0.25VDC						
Process connection	M12=M12X1.5-6g X=By customized						
Pressure Measurement	01=0.05MPa 02=0.1 Mpa 03=0.2Mpa 11=1MPa						
Accuracy	1=0.5%F.S						



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