GP-6112 Piezoelectric Pressure Transmitter

Features

- ✓ High-frequency response
- ✓ Wide passband
- ✓ Water-cooled
- ✓ High stability
- ✓ Strong anti-interference capability
- ✓ Extensive measurement range.

Introduction

The GP-6112 water-cooled high-temperature high-frequency dynamic pressure sensor features a water-cooled structure and a pressure-sensing diaphragm with a near-flush encapsulation design, offering high temperature resistance and frequency response. This series of pressure sensors and transmitters is engineered to meet users' specific requirements for response frequency and high operating temperatures. To fulfill these multiple user demands, the transmitter employs a split-body structure.

Application

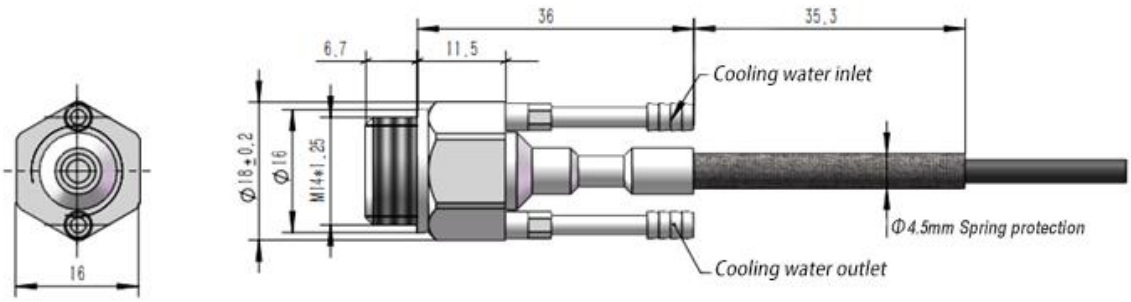
Measurement of dynamic pressure curves within internal combustion engine cylinders, knock studies in gas engines, high-frequency pressure oscillations in engines, explosion, shock, and pulse pressure testing, high-temperature industrial process monitoring, and other pressure measurement applications involving high frequencies, high temperatures, and intense vibrations.

Specification

Item	Parameter		
Range	-100kPa……1MPa……30MPa		
Over Pressure	x1.5 FS or 40MPa (The smaller of the two)		
Pressure Type	Gauge, Absolute, Negative		
Accuracy	±0.5%FS		
Medium	Air or Liquid		
Stability	≤±0.2%FS/year		
Zero Temp. Err	≤±0.03%FS/℃(≤100kPa), ≤±0.02%FS/℃(＞100kPa)		
Span Temp. Err	≤±0.03%FS/℃(≤100kPa), ≤±0.02%FS/℃(＞100kPa)		
Rise time	＜2μs		
Resonant Frequency	≤350kHZ		
Bandwidth	0～3KHz	0～20KHz	0～200KHz

Resolution	1/100000
Power Supply	9V ~ 36V DC, Optional
Output	0 ~ 5V DC
Protection	IP68
Connection	5m Cable
Housing	Stainless Steel
Seal Material	FKM / Copper Gasket

Dimension(mm)



Order Guide

GP-6112	Pressure Transmitter						
	Code1	Pressure range					
	(0-X) U	Gauge, U:kPa/MPa/psi					
	(-X-X) U	Other, U: kPa/MPa/psi					
		Code2	Power supply				
		V1	9-36V DC				
		V2	5V DC				
		V3	1.5 mA				
		V4	12~15V DC				
			Code3	Output			
			F	0-5V DC			
				Code4	Accuracy		
				25	±0.5%		
					Code5	Resonant	
					H3	0-200kHz	
						Code6	Pressure port
						M1	M20x1.5 M
GP-6112-(0-1)MPa-V1-F-25-H3-M1							

Note

This series of sensors consists of water-cooled high-temperature, high-frequency pressure sensors and transmitters designed for specialized high-temperature applications. Before testing, connect the water pipes, open the water valves, and ensure the water-cooling system maintains normal circulation with water pressure not less than the specified inlet pressure. Testing must only proceed under these conditions; failure to do so may cause permanent damage to the sensor.

When inlet water pressure is 20 kPa ⩾ P ⩽ 100 kPa, the sensor operating temperature is ⩽150°C;
When inlet water pressure is 100 kPa ⩾ P ⩽ 200 kPa, the sensor operating temperature is ⩽180°C;
When inlet water pressure is 200 kPa ⩾ P ⩽ 300 kPa, the sensor operating temperature is ⩽ 250°C;
When inlet water pressure is 300 kPa ⩾ P ⩽ 400 kPa, the sensor operating temperature is ⩽ 300°C.