Industrial Pressure Sensor Module

Description

XDB106 stainless steel pressure sensor module is designed for pressure detection and measurement, transforming pressure into output signals according to set rules. It features components made with high-temperature sintering for enhanced durability against temperature, humidity, and mechanical wear, ensuring stability in industrial settings. Unlike the XDB105, it includes a special PCB for zero-point calibration and temperature compensation.

Features

- High Precision Integration: Utilizes alloy diaphragm and stainless steel with piezoresistive technology
- Corrosion Resistance: Capable of direct contact with corrosive media, eliminating the need for isolation.
- Extreme Durability: Operates reliably at ultra-high temperatures with superior overload capacity.
- Exceptional Value: High reliability, good stability, low cost, high cost performance.

Typical applications

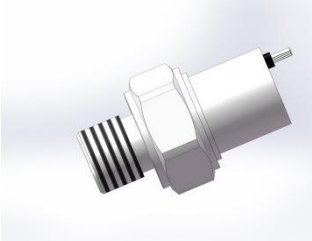
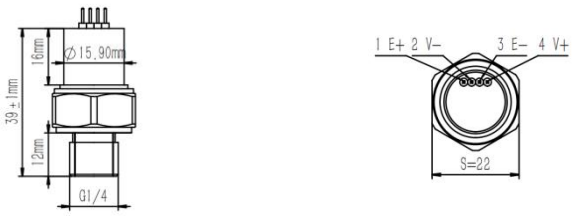
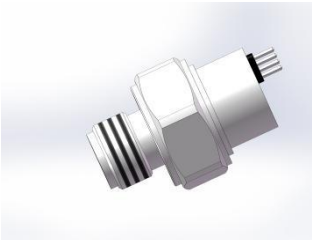
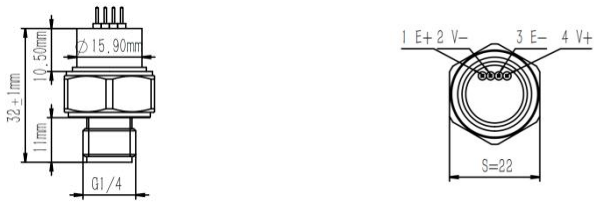
- Heavy Machinery: cranes, excavators, tunneling machines, and piling equipment.
- Petrochemical Sector: Essential for the reliable operation of petrochemical processing equipment.
- Automotive Electronics: Integral in advanced automotive systems for enhanced performance and safety.
- Construction and Safety Equipment: Ideal for pump trucks, fire safety devices, and road construction machinery.
- Pressure Management Systems: Perfect for stabilizing pressure in air compressors and water production facilities.

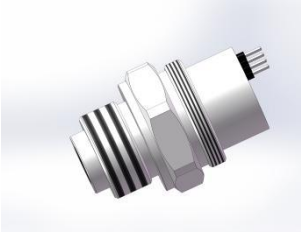
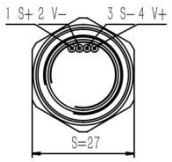
Parameters

Model	XDB106	XDB106P
Power supply	Constant current 1.5mA; Constant voltage 5V (typical)	
Bridge arm resistance	5±2KΩ	10±2KΩ
Medium contact material	SS316L	
Measuring range	0-2000bar	
Overload pressure	200%FS	
Burst pressure	300%FS	
Insulation resistance	500M Ω (test conditions: 25℃, relative humidity of 75%, 100VDC)	

Working frequency	0~1KHz	
Accuracy	±1.0%FS	
Temperature compensation	0℃~70℃	
Comprehensive error (including linearity, hysteresis, and repeatability)	1.0%FS	
Zero point output	0±2mV@5V Power supply	
Sensitivity range (full range output)	1.0-2.8mV/V@5V power supply (standard atmospheric environment)	2-5mV/V@5V power supply (standard atmospheric environment)
Sensitivity range (full range output) Temperature characteristics	≤±0.02%FS/℃(0~70℃)	
Zero position, full range temperature drift	A: ≤±0.02%FS/℃(0~70℃)	
	B: ≤±0.05% FS/℃(-10℃ ~ 85℃)	
	C: ≤±0.1% FS/℃(-10℃～85℃)	
Zero time drift characteristics	≤±0.05% FS/year(standard atmospheric environment)	
Working temperature	-40℃~150℃	
Long term stability	≤±0.05% FS/year	

Dimensions(mm) & electrical connection

Model	PIC	Dimensions
XDB106-22		
XDB106P-22		
XDB106-27		

XDB106P-27			

How to order

E.g. **XDB 106 - 22 - 0010B - 0**

Hex **1** **2**

Range (Bar) | Type of lead

1 - Solder leads
2 - pins

Model	Pressure range(Bar)	Overload pressure(Bar)	Burst pressure(Bar)
XDB106-22-0010-1	0...10	20	40
XDB106-22-0020-1	0...20	40	60
XDB106-22-0050-1	0...50	100	150
XDB106-22-0100-1	0...100	200	300
XDB106-22-0200-1	0...200	400	600
XDB106-22-0400-1	0...400	800	1200
XDB106-22-0600-1	0...600	1200	1800
XDB106-22-1000-1	0...1000	1500	2000
XDB106-22-1500-1	0...1500	2250	3000
XDB106-22-1800-1	0...1800	2700	3600
XDB106-22-2000-1	0...2000	3000	4000

Note: Other ranges can be customized according to the requirements.

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