

Gauge and Absolute Piezoresistive

Pressure Sensor

CYX-12

35kPa~100MPa



Tianshui Huatian Sensor Co., Ltd
天水华天传感器有限公司



I²C
CE

CYX12

• Summary

The Piezoresistive pressure sensor imported high precision, high stability force sensitive chips, adopted advanced technology, military industry production conditions and equipment manufacturing delicately. Widely used in petroleum, chemical, metallurgy, electric power, aviation, medical equipment.

• Standard Range

(Power Supply:1.5mA or 5VDC)				
Range	Overload Pressure	Full Scale Output(mV)	Typical Value(mV)	Pressure Form
0~10 kPa	300%	35~60	45	G/D
0~20 kPa	300%	70~110	90	G/D
0~35 kPa	300%	55~80	70	G/A/D
0~70 kPa	300%	55~80	60	G/A/D
0~100 kPa	300%	60~85	75	G/A/D
0~200 kPa	300%	65~85	75	G/A/D
0~400 kPa	300%	60~80	70	G/A/D
0~600 kPa	200%	90~120	100	G/A/D
0~1.6 MPa	200%	80~120	100	G/A/D
0~1.0 MPa	200%	125~185	150	G/A/D
0~2.0 MPa	200%	50~70	60	G/A/D
0~3.5 MPa	200%	100~120	110	G/A/D
0~7.0 MPa	200%	120~150	135	A
0~10 MPa	200%	180~230	200	A
0~25 MPa	150%	140~170	150	A
0~40 MPa	150%	230~280	250	A
0~60 MPa	150%	100~160	130	S
0~100 MPa	150%	100~150	120	S

Notes: G stands for gauge pressure; A stands for absolute pressure; D stands for differential pressure; and S stands for sealed gauge.

• Technical Parameters

Range	-100kPa~100MPa		
Parameters	Typical Value	Maximum Value	Unit
Zero Output	±1	±2	mV
Nonlinearity	0.2	0.5	%FS
Hysteresis	0.05	0.1	%FS
Repeatability	0.05	0.1	%FS
Input/ Output Impedance	2.6	3.8	kΩ
Zero Temperature Drift*	±0.15	±0.8	%FS,@25℃
Sensitivity Temperature Drift*	±0.2	±0.7	%FS,@25℃
Long-term Stability	0.1		%FS/year
Excitation Current	1.5(Max input voltage is 10VDC)		mA
Insulation Resistance	500(500VDC)		MΩ

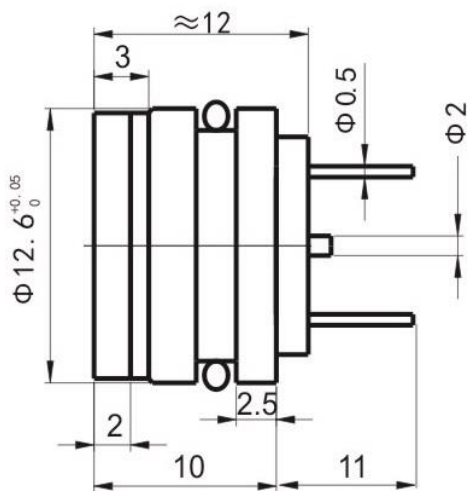
Compensation Temperature	0~50; -10~80	°C
Operating Temperature	-40~+85	°C
Storage Temperature	-40~+125	°C
Response Time	≤1	ms
Shell & Diaphragm Material	316L Stainless Steel	
Measuring Medium	The fluid which is compatible with 316L, viton, nitrile rubber	
Vibration(20~500Hz)	20	G
Useful Time(25°C)	>1*10 ⁸ Pressure Circulation(80%FS)	times
Packing Medium	Silicon Oil / Fluorine Oil	
Weight	36	g
O Ring	Φ16*1.8mm(nitrile rubber or viton)	

*The typical value of 0~10kPa and 0~20kPa's zero temperature drift and sensitivity temperature drift is 0.4%FS@25°C,max value is 1.6%FS@25°C.

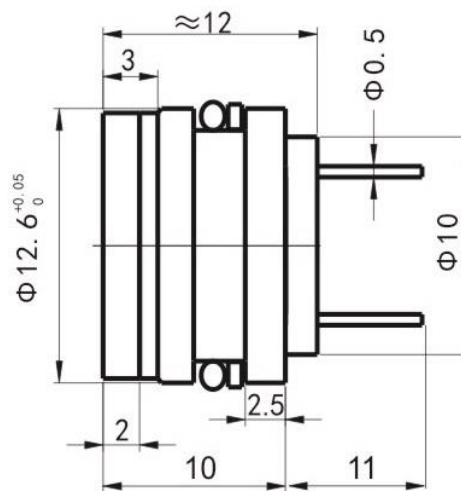
• Trait

1. The accuracy can reach 0.1%.
2. Full span output is 100mV(typical value).
3. Imported high stable chips.
4. Long-term stability reach 0.1%FS/year.
5. Cost effective.

• Structure



CYX12 small / medium range



CYX12 large range

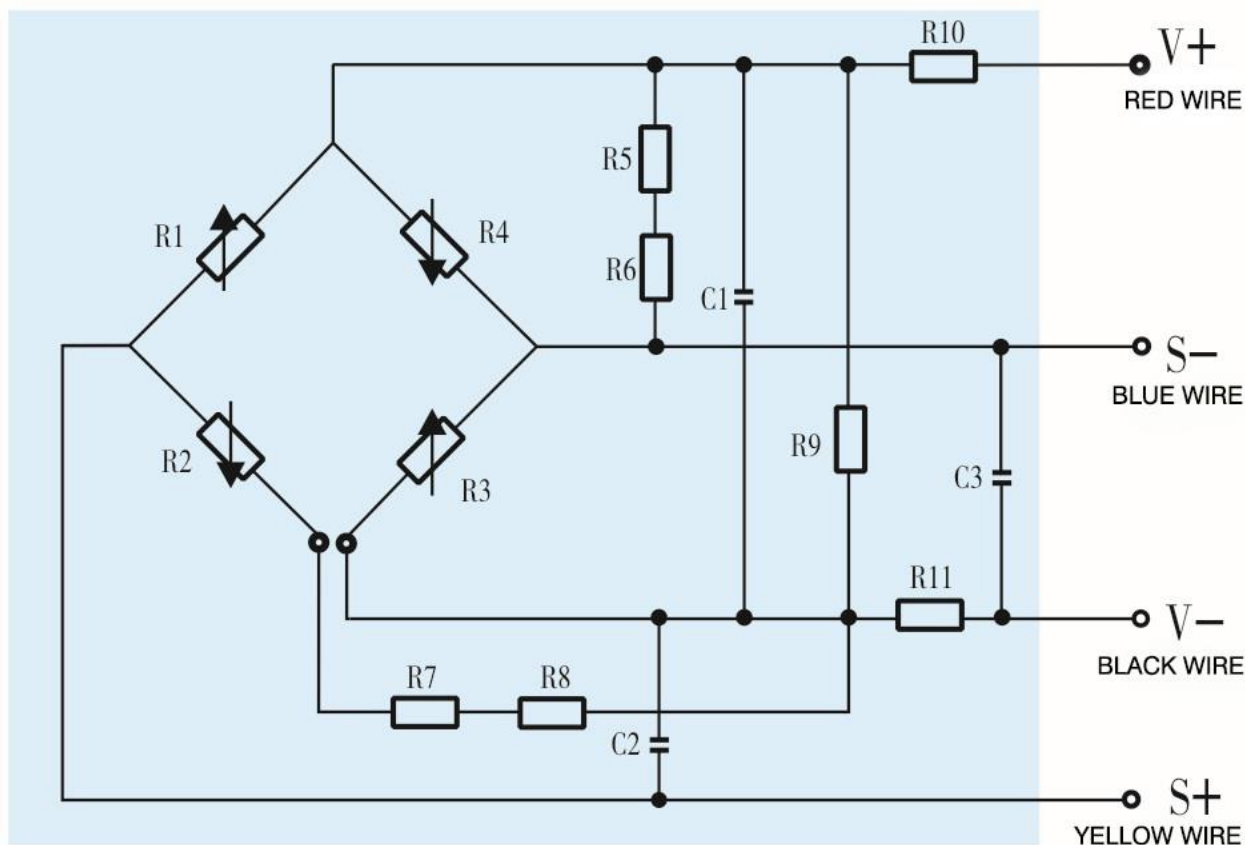
• Connection

red wire -- positive vdd

yellow wire -- positive output

black wire -- ground

blue wire -- negative output



• Selection

