Sensor Co.,LTD

PRODUCT OVERVIEW

PRESSURE MEASUREMENT

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P803 Series Standard Industrial

Differential Pressure Transducers & Transmitters

Characteristics

☆ Accuracy: ≤±0.5%F.S.
☆ Wide working temperature scope
☆ Advanced digital temperature compensation.
☆ Excellent resistance against impact, overload, Shock and erosion.
☆ Highly static pressure overload
☆ Highly strong RFI & EMI resistance
☆ Impact resistance and disturbance
☆ 1.5 times range standard overload.
☆ 3 times range burst pressure
☆ CE approval

Applications

★ Industrial course testing and control
★ Level measurement and control
★ Service to Oxygen, CO2, Nitrogen, Natural gas and so on
★ Petrochemical industry
★ Storage and fuel, Oil, Water Tank applications
★ Pump station and water treatment system
★ Laboratory equipment
★ Industrial machinery manufacture
★ Automatic detection system
★ Saving water to irrigate
★ And so on

Profiles

P803 Series DP transducer/transmitter is a high reliability, stability, and accuracy DP transmitters. It is widely used in the field of liquid, gas pressure test, water, oil, and mildly corrosive liquids measurement.

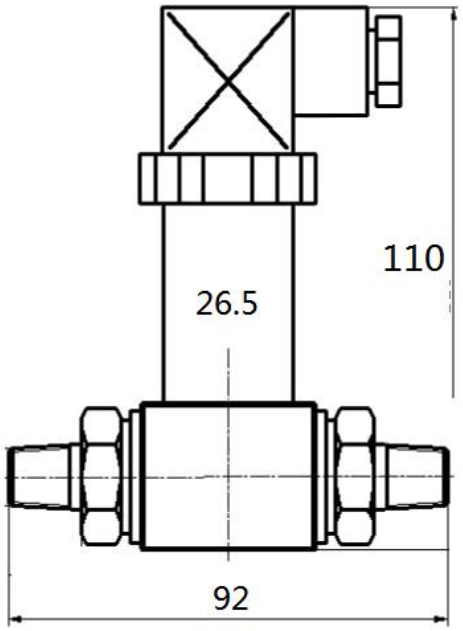
The product material is 316L stainless steel, imported high accuracy silicon pressure sensor, dedicated amplifier and V / I conversion circuit transmitter, the specific anti-high voltage, high current, high magnetic field, polar lead and other characteristics.

P803 Series DP Transducer/Transmitters are piezoresistive differential pressure sensor as sensing element. Silicon/fluorocarbon oil is filled in between die and two diaphragms, when measured differential pressure is added on two diaphragms the pressure could be transferred onto die through oil. Sensor die connects with amplifier circuit through wires, using semi-conductor's piezoresistive effect, transforming differential pressure signal into electric signal. The whole product is used for differential pressure measurement of petroleum, chemi-industry, natural gas pipeline, power station and hydrology, etc.

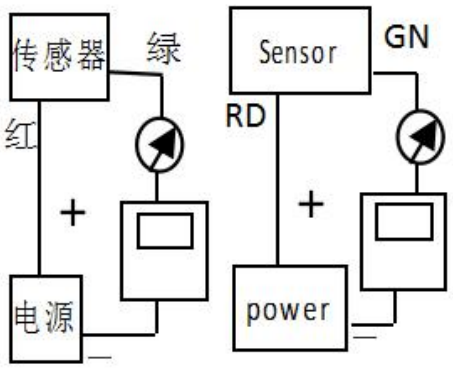
Specifications

Model / Parameter	P803 Series					
Pressure Range	10~50KPa	51~100KPa	101~200KPa	201~500KPa	501~1000KPa	1~20Bar
High port overload	50…500 kPa	500…1000 kPa	10…20 Bar	20…40 Bar	40…50 Bar	10…105Bar
Low port overload	30…150 kPa	150…300 kPa	300…600 kPa	600..1000 kPa	1…1.5 Bar	1.5…55 Bar
Max Static Pressure	1…5 Bar	5…20 Bar	20…40 Bar	40…50 Bar	50 Bar	50…100 Bar
Accuracy(Linearity Hysteresis Repeatability)	≤±0.25%F.S (by customized); ≤±0.5%F.S (Typical); ≤±1.0%F.S Optional					
Stability	Standard: 0.1%F.S, Max:0.2%F.S					
Ambient Temp.	-20℃~70℃					
Medium Temp.	-20℃~85℃/125℃(with cool device)					
Storage Temp.	-30℃~85℃					
Temp. Compensation	-10℃~50℃ or 0℃~80℃ or by customized					
Zero Temp Drift	0.02%F.S/℃					
Sensitivity Temperature Drift	0.02%F.S/℃					
Medium compatible	Compatible with 316 Stainless Steel					
Electronic Wire	2 Wires	3 Wires			4 wires	
Output	4~20mA	0~5V		0~10 V	RS485 MODBUS	
Power Supply	12~36Vdc (Typical:24 V DC)	9~36Vdc (Typical:24 V DC)		15~36Vdc (Typical:24 V DC)	10-30Vdc (Typical:24 V DC)	
Load resistance	(U-10)/0.02(Ω)	>100kΩ			Max 255	
Insulate resistance	>100M Ω @100V					
Electrical connection	Fixed cable and water proof IP67; Terminal Box DIN43650 IP65					
Pressure connect port	1/4''-18NPT Female; G1/4'' Male; G1/2'' Male; RG=Ø8/Ø10 gas mouth optional(by customized)					
Process structure	All-Welded Construction (non-O-rings)					
Diaphragm material	316L Stainless Steel					
Response time	≤10ms					
Pressure Type	Differential Pressure (Gauge Type)					
Certificate	ExiaIICT6 and CE Certificate.					
EMC Standard	Electromagnetic radiation:EN50081-1/-2 Electromagnetic susceptibility:EN50082-2					
Water Proof	IP65 to IP68 optional by model					

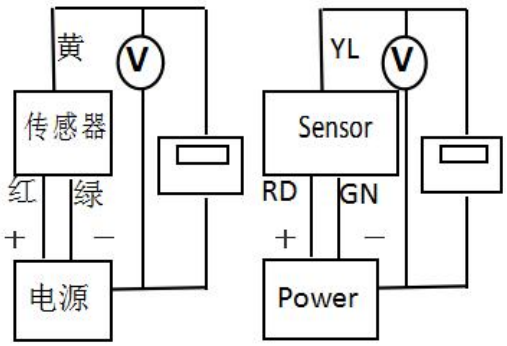
Dimension and Drawing



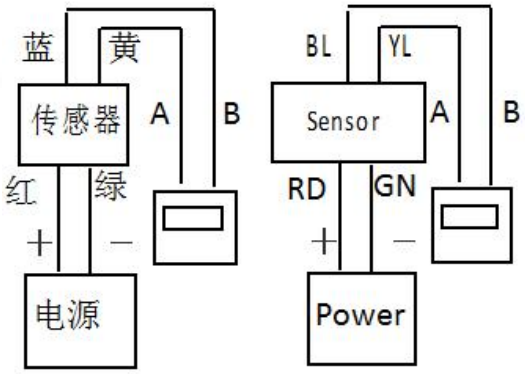
Electrical Connections



Current output, 2-wire



Voltage output, 3-wire



RS485 output

Part Number Code Table For Pressure Range

	000	0-0.1		009	0-3.5		018	0-40		027	0-1000
	001	0-0.2		010	0-5		019	0-50		028	0-1200
	002	0-0.35		011	0-10		020	0-100		029	0-1300
	003	0-0.7		012	0-15		021	0-150		030	0-1500
	004	0-1.0		013	0-20		022	0-200		031	0-2000
	005	0-1.5		014	0-25		023	0-250			
	006	0-2		015	0-30		024	0-300			
	007	0-2.5		016	0-35		025	0-400			
	008	0-3		017	0-38		026	0-500		X	Customized

Order Information

P/N / Selection	803 (Model)	010	E5	S37	H	1	1	26	P1
Range	Refer to *PART NUMBER CODE TABLE FOR RESSURE RANGE* on previous page and select your requested range code here.								
Output	E5=4-20mA(2 wires) E6=0-5V(3 wires) E7=0-10V(3 wires) E11=RS485(MODBUS) E12=RS2325(MODBUS) E14=4-20mA +Hart (2 wires) X= By Customized								
Power Supply	S3=24Vdc S37=12-36Vdc S5=12Vdc S44=15-36Vdc S17=10-30Vdc S18=9-36Vdc X= By customized								
Electrical Connection	S=Direct outlet cable H=Hirschmann terminal box D=Hirschmann terminal connector with display								
Accuracy	0=1%F.S 1=0.5%F.S 2=0.25%F.S(by customized)								
Cable Length	1=Cable 1m 2=Cable 2m 3=Cable 3m X=Cable x m								
Pressure Connection	26= 1/4''-18NPT Female (Typical) 9=G=1/2" male 6=G1/4" male 7=G1/4" Female 8= M20x1.5 male 10=1/2"NPT male 42=RG Φ10 gas mouth 27=RG 7 gas mouth X= By Customized								
Max Static Pressure	P1=Standard by DP range P2=High static pressure type by customized								

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