



Product model: HPM280 protective pressure transmitter

Manufacturer: Nanjing Hangjia Electronic Technology Co.,Ltd.

Product category: pressure transmitter

Application: pressure measurement in mechanical, metallurgical, petrochemical, electric and other industrial processes

Product Overview

HPM280 Protective Pressure Transmitter adopts high stable and reliable diffused silicon piezoresistive pressure sensor as signal measuring element. It is processed through automatic testing and laser trimming to achieve wide temperature compensation. The product has stable and reliable performance because they all pass the strict testing and ageing testing. With field digital display, it is applied to the occasion of measuring pressure in the hostile working environment. HPM280 can be widely used for pressure measurement in the fields of machinery, metallurgy, petrochemical, power, etc.

Features

Aluminium alloy shell, ingress protection IP65

Field display, 4-20mA DC signal output and other telecommunication signals

With polarity reversal protection ,overcurrent and overvoltage protection

Zero-scale and full-scale adjustable

Strong anti-jamming, long-term stability

Technical Parameters

Measuring Medium: various liquid, gas or steam compatible with 304 or 316L stainless steel

Pressure Range : -100kPa...0~1kPa...100MPa (when the pressure is less than 10kPa, it only can measure dry noncorrosive or weak corrosive gas)

Overload: 1.5 times pressure range of full scale

Pressure Type: Gauge pressure, absolute pressure or sealed gauge pressure

Accuracy: $\pm 0.25\%FS$ (Representative); $\pm 0.5\%FS$ (Maximum)

Long-term Stability: $\pm 0.1\%FS/year$ (Representative); $\pm 0.2\%FS/year$ (Maximum)

Temperature Coefficient of Zero: $\pm 0.03\%FS/^\circ C$ (Reference $25^\circ C$)

Temperature Coefficient of Full Scale: $\pm 0.03\%FS/^\circ C$ (Reference $25^\circ C$)

Operation Temperature: $-30\sim 85^\circ C$

Storage Temperature: $-40\sim 120^\circ C$

Supply Voltage: 24VDC(12~30V)

Output Signal: 4~20mADC or other customization

Output Mode: two-wire, three-tire

Load Resistance: $\leq (U-12)/0.02\Omega$

Insulation Resistance: 100M Ω , 500VDC

Ingress Protection of Shell: IP65

Electrical Connection: dedicated shield cable 1.5 meters

Structure Material

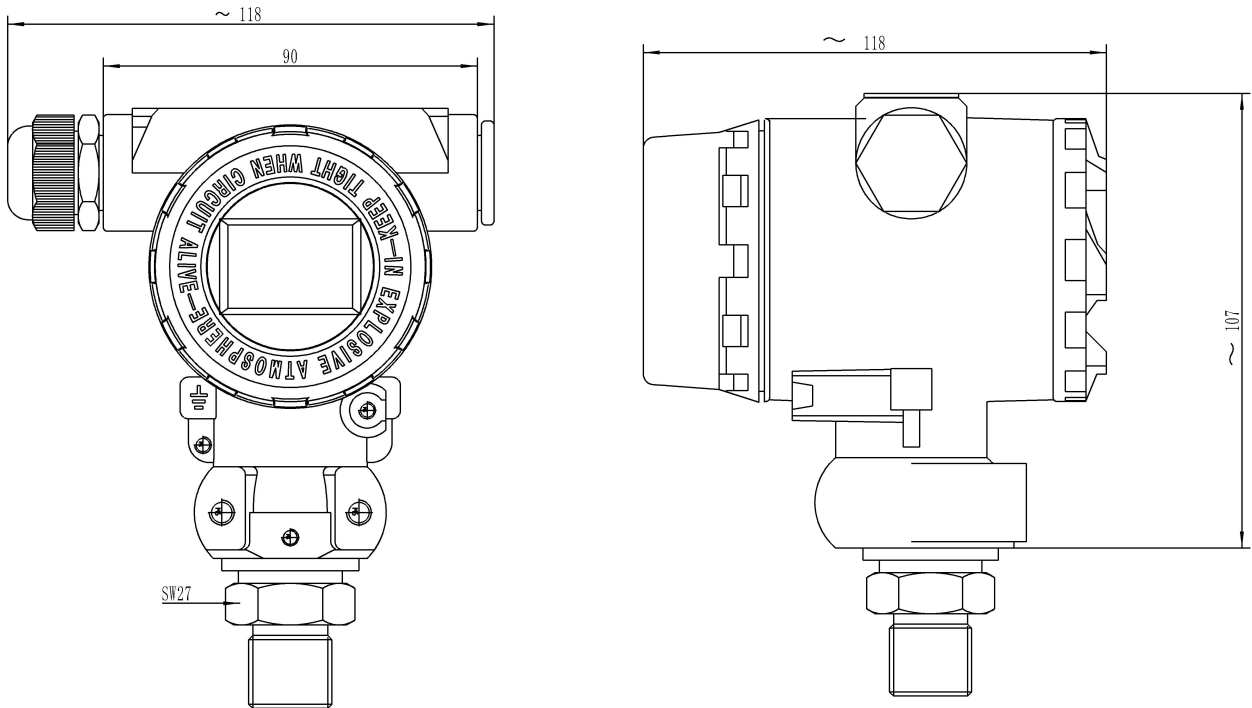
Shell: aluminum alloy

Pressure interface: stainless steel 1Cr18Ni9Ti

Diaphragm: stainless steel 316L

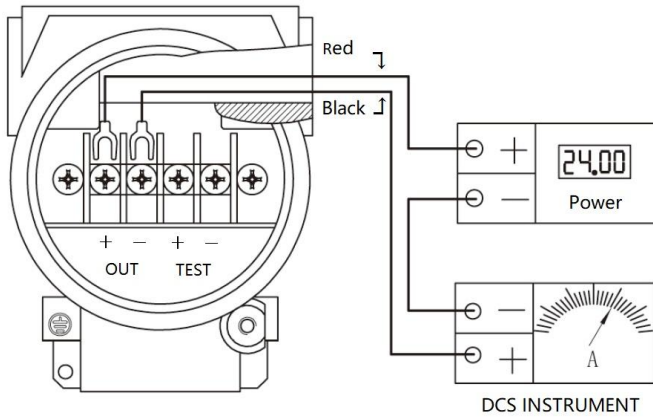
O-ring: fluoro rubber

Structure Drawings

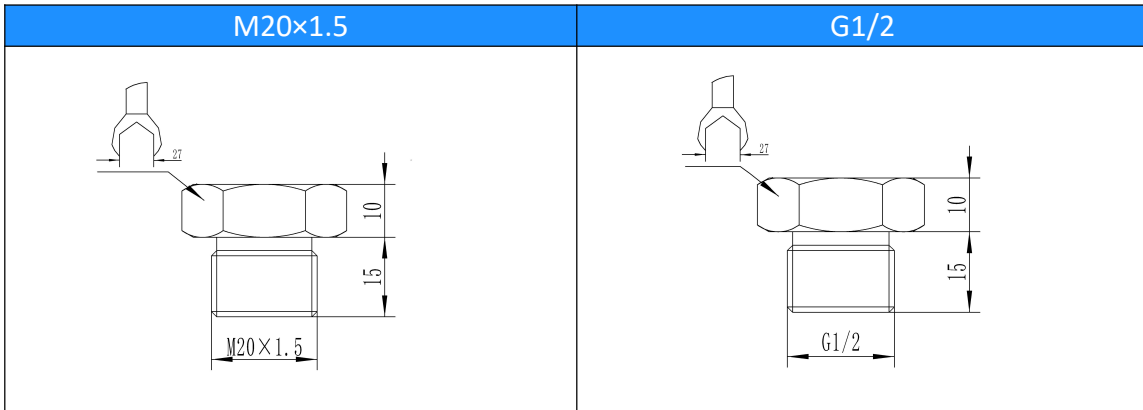


Electrical Connection

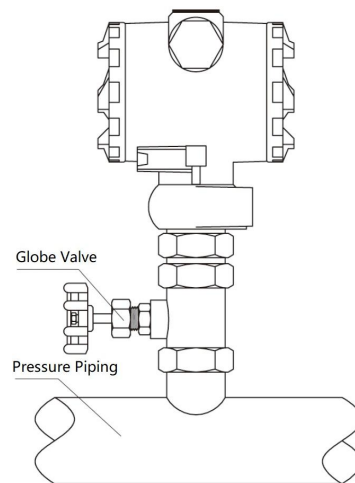
Pin	Wire Color	Two Wire Current
OUT+	Red	Power+ (+V)
OUT-	Black	Power- (0V/+OUT)
The Rest	N/A	N/A

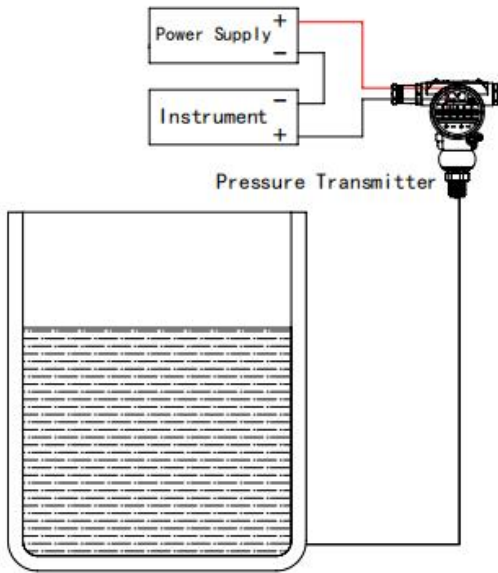


Pressure Port

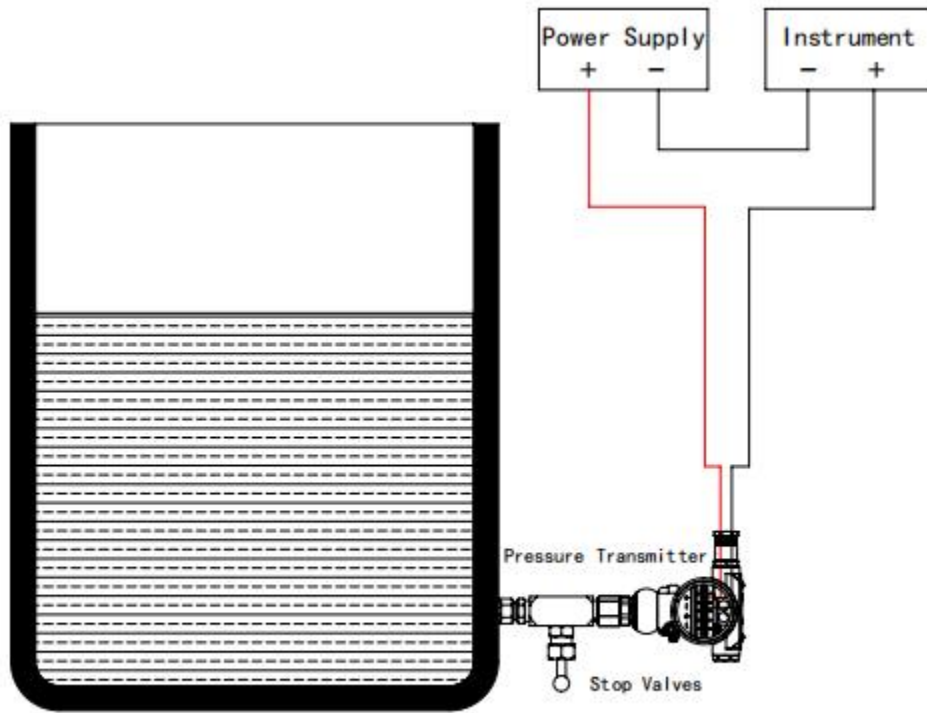


Installation Diagrams

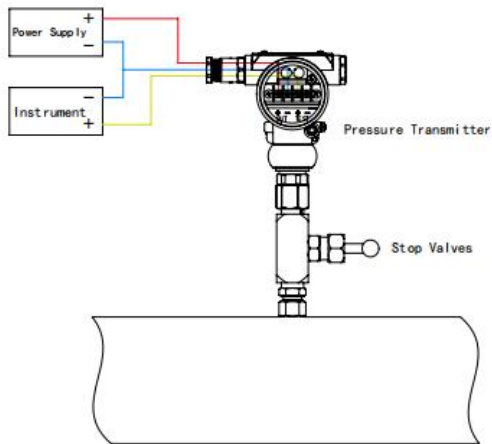




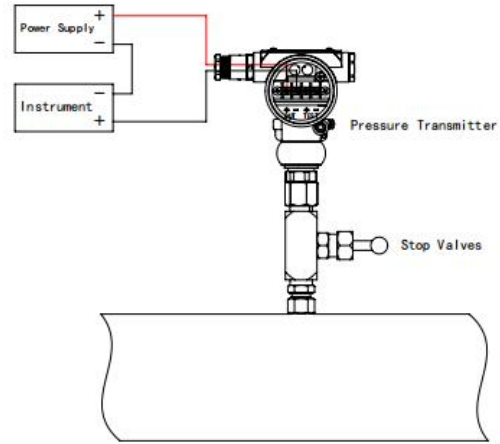
4-20mA Two wires diagram



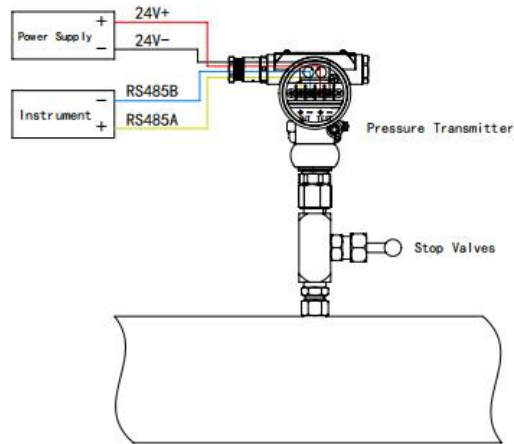
4-20mA Two wires diagram



Voltage output Three wires diagram



4-20mA Two wires diagram



RS485 four wires diagram

Installation Tips

1. The product is installed vertically on the pressure interface in the field, away from vibration and heat source as far as possible
2. When installing in the open air, put it in a ventilated and dry place as far as possible and avoid direct sunlight and rain
3. It is recommended to install lightning protection device in the area of multiple mines, and ensure that the shell is reliably grounded

Ordering Guide

Item NO.	Type						
HPM280	Protective Pressure Transmitter						
	Pressure Range	Measuring Range					
	(0~X)kPa	Fill out X directly					
		Code	Output Signal				
		B1	(4~20)mA				
		B2	(0~10)mA				
		B3	(0~10)V				
		B4	(0~5)V				
		B5	(1~5)V				
		B6	(0.5~4.5)V				
		B7	RS485				
		B8	HART				
		Code	Power Supply				
		V1	24V DC				
		V3	3.6V Lithium battery				
		Code	Thread Spec				
		P1	M20x1.5				
		P4	G1/2				
		P17	M27x2				
		Code	Electrical Connection				
		C9	cable gland				
		Code	Structure&Material				
		M1	316L	316L	Stainless Steel		
		M2	316L	316L	316L		
		M3	Tantalum	Hastelloy	316L		
		M4	Titanium	Titanium	316L		
		X	Other				
		Code	Additional Functions				
		G	Gauge Pressure (Default)				
		A	Absolute Pressure				
		S	Sealed Gauge Pressure				
		v	Fluororubber O-Ring (Default)				
		j	Buna-n O-Ring				
		h	All-welded without O-Ring				
		d	Explosion-proof tYPE, Exd II CT6				
		D1	LED Display				
		D2	LCD Display				
		L	atmospheric pressure measurement within 10kPa				
		W	water-proof and ventilated treatment				
HPM280	(0~600)kPa	B1	V1	P1	C9	M1	GvW

Tips for Type Selection

1. When selecting the type, please note that the tested medium should be compatible with the part in contact with the product and the medium.
2. Nitrile and polyethylene are available as cable materials. Nitrile has good versatility, oil resistance and wear resistance. Polyethylene has good toughness and excellent electrical insulation and stability. Unless otherwise specified, deliver by nitrile cable.

3. 1.5 meters of cable length is standard, and the excess shall be calculated separately.
4. This product has the option of flameproof type, which is suitable for the occasions with more stringent requirements for flameproof.