

HPM3180 compact differential pressure transmitter



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Overview

HPM3180 Delicate Differential Pressure Transmitter adopts silicon piezoresistive differential pressure core. The shell is all stainless steel structure with strong corrosion resistance. The pressure interface is source nipple connection which is can be installed at the measuring piping or connected through impulse piping. This product had standard voltage and current outputs and other options. It is easy installation, can be widely used for the measurement and control of differential pressure, liquid level and flow in the fields of process control, aerospace, automotive, medical equipment, HVAC, etc.

Application: differential pressure, liquid level and flow measurement and control in equipment supporting, process control, aerospace, automobile, medical equipment, water supply and drainage, HVAC and other fields

Features

- .316L stainless steel diaphragm isolation structure
- .Measure differential pressure
- .Delicate design, easy installation
- .Short-circuit protection and reverse polarity protection
- .Impact resistance, anti-vibration and electromagnetic compatibility resistance
- .Customization according to requirement

Technical Parameters

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

Differential Pressure Range: 0~0.01...3.5MPa

Overload: Unilateral overvoltage 1.5 times

Bilateral statics pressure: 20Mpa

Accuracy: $\pm 0.5\%FS$, customized for $0.1\%FS$, $0.2\%FS$

Long-term Stability: $\pm 0.3\%FS/year$

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

Supply Voltage: 24VDC

Output Signal: two-wire (4~20) mADC, three-wire 0-10V voltage signal, etc.

Insulation Resistance: 100M Ω , 500VDC

Insulation Resistance: IP65

Electrical Connection: DIN43650, cable outlet or Aviation plug, etc.

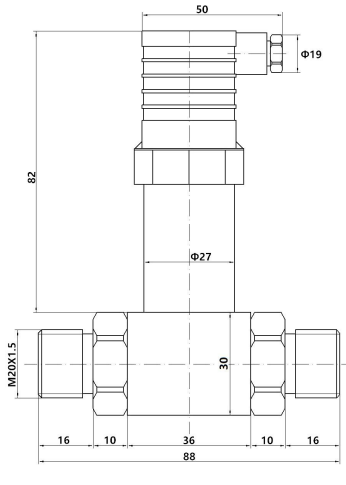
Structure Material

Housing: stainless steel 304 or 316L

Diaphragm: stainless steel 316L

O-ring: fluoro rubber

Structure Drawings(unit:mm)



Electrical Connection

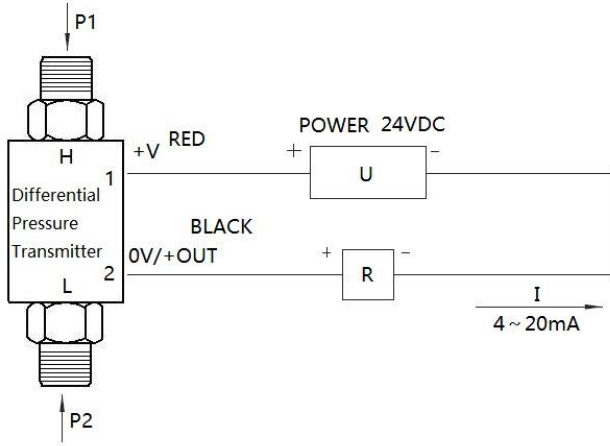
Hirschman Connector Wiring Method

Pin	Two Wire Current	Three Wire Voltage
1	POWER+ (+V)	POWER+ (+V)
2	POWER- (0V/+OUT)	Common Port(GND)
3	N/A	Output (+OUT)

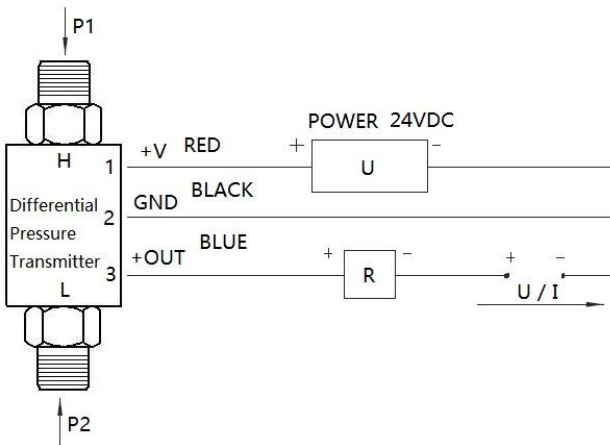
Cable type wiring method

Wire Color	Two Wire Current	Three Wire Voltage
RED	POWER+ (+V)	POWER+ (+V)
BLACK	POWER- (0V/+OUT)	Common Port(GND)
BLUE	N/A	Output (+OUT)

Electrical wiring diagram of two wire 4-20mADC output transmitter



Electrical wiring diagram of three-wire voltage output transmitter



Ordering Guide

Item NO.	Type			
HPM3180	Delicate Differential Pressure Transmitter			
	Pressure Range	Measuring Range		
	(0~X)MPa	Fill out X directly		
		Code	Output Signal	
		B1	(4~20)mA	
		B3	(0~10)V	

		B4	(0~5)V						
		B5	(1~5)V						
		B6	(0.5~4.5)V						
			Code	Thread Spec					
			P1	M20×1.5					
			P3	G1/4					
			P4	G1/2					
			Code	Electrical Connection					
			C1	DIN43650					
			C2	Cable Outlet					
			C3	Aviation Connector					
			Code	Structure&Material					
				Diaphragm	Interface	Shell			
			M1	316L	316L	Stainless Steel			
			M2	316L	316L	316L			
			M3	Tantalum	Hastelloy	316L			
			M4	Titanium	Titanium	316L			
				Code	Additional Functions				
				v	Fluororubber O-Ring (Default)				
		HPM3180	(0~0.4)MPa	B1	P1	C1	M1	v	