



Product model: HPM189 high temperature pressure transmitter

Manufacturer: Nanjing Hangjia Electronic Technology CO., LTD.

Product category: pressure transmitter

Application: measurement of corrosive gases, liquids and vapors in hydraulic and pneumatic equipment, servo valves and drives, chemical products and chemical industry, environmental protection, machinery and other fields

Overview

HPM189 High Temperature Pressure Transmitter adopts high temperature resistance pressure sensing core as sensitive element, and transforms the pressure of measured medium to pressure sensor by heat radiation structure of transmitter. The signal circuit with low temperature drift in the stainless steel shell transforms the signal of transmitter to standard current signal output. It can be directly connected with computers, control instruments, display instruments, etc. This products used integrative stainless steel structure with many features such as excellent functions, easy installation, impact resistance and vibration resistance. The high temperature resistance core and heat radiation structure guarantee it can be used for high temperature medium for a long time.

Features

- .Imported high temperature pressure sensing core
- .Applicable medium temperature range is wide, $-40 \sim 200^{\circ}\text{C}$
- .Protection class IP65
- .Reverse polarity protection and instantaneous over-current and over-voltage protection, in line with EMI protection requirements
- .Shock resistance, shock resistance, corrosion resistance

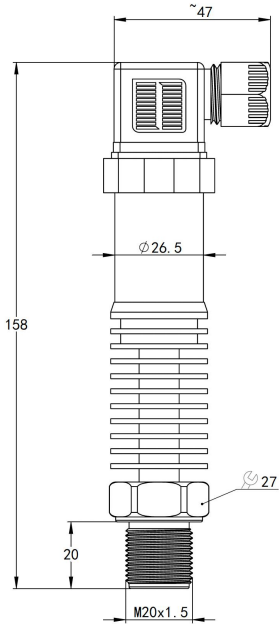
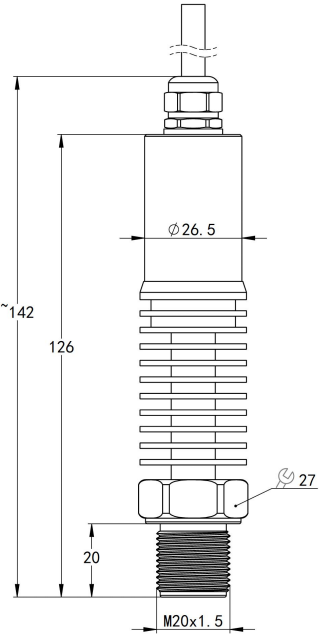
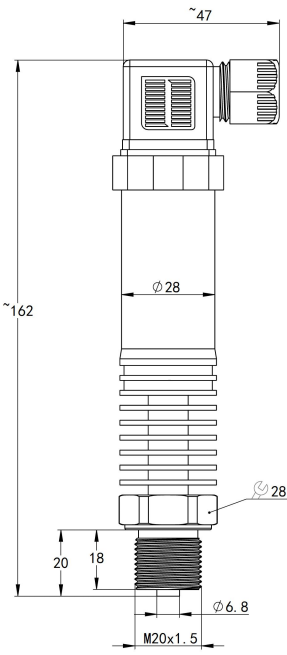
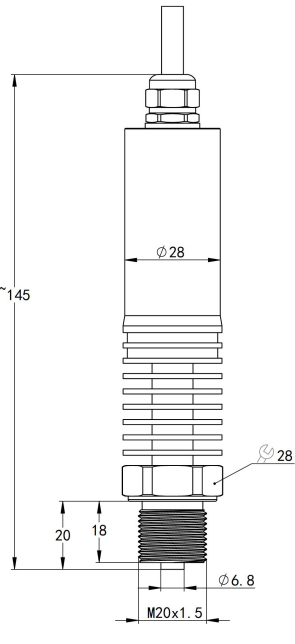
Technical Parameters

Pressure Range	
Gauge pressure	-100kPa...0 ~ 2kPa...100MPa
Absolute pressure	0 ~ 10kPa...10MPa
Overload	1.5x of full pressure range
Measuring Medium	
Medium type	various liquid, gas or steam compatible with 304 or 316L stainless steel
Output Signal/Power supply	
Two-wire	4~20mA / $V_s=8\sim30V$
Two-wire	4~20mADC+HART / $V_s=12\sim32V$
Three-wire	0 ~ 5V / $V_s=8.5\sim30V$ 或 $V_s=3.1\sim8V$ (At the same time, it must be higher than the maximum output voltage 0.4V)
Three-wire	0 ~ 10V / $V_s=12\sim30V$
Performance	
Accuracy	$\pm 0.5\%FS$ @25°C (Default) $\pm 0.2\%FS$ @25°C (Customized)
Long-term Stability	$\pm 0.25\%FS/year$ (0.5% accuracy) $\pm 0.2\%FS/year$ (0.2 accuracy)
Resolution ratio	Unlimited , Only affected by the output noise level, usually $\leq 0.01\%$
Response time	About 10 ~ 100ms
Uptime	$\leq 200ms$
Temperature drift characteristic	
compensation temperature scope	0 ~ 70°C (0.5% accuracy) -10 ~ 80°C (0.2% accuracy)
Temperature Coefficient of Zero	$\pm 1.0\%FS$ Reference 25°C
Temperature Coefficient of Full Scale	$\pm 1.0\%FS$ Reference 25°C
Enviromental Conditions	

Temperature Scope	Ambition Temp.: -40 ~ 85°C Medium Temp.: -40 ~ 140°C (5 cooling fins) -40 ~ 200°C (10 cooling fins) -40 ~ 350°C (8 cooling fins, cellular structure) Storage Temp.: -40 ~ 85°C
Protection Grade	IP65, Din43650/Hirschmann (ordering code C1) IP66, M12×1 connector (ordering code C5) IP67, Cable outlet (Ordeing code C2)
Insulation	
insulation resistance	>20MΩ @500VDC
dielectric strength	<2mA @ 500VAC (Apply 500VAC 50Hz test voltage, lasting 1min without breakdown and flare-up phenomenon)

Structure Drawings

DIN43650,5 cooling fins (Ordering code C1,T5)	Cable outlet,5 cooling fins (Ordering code C2,T5)

<p>DIN43650,10 cooling fins (Ordering code C1,T10)</p> 	<p>Cable outlet,10 cooling fins (Ordering code C2,T10)</p> 
<p>DIN43650,8 cooling fins(ordering code C1,T8H)</p>  <p>* Customized structure, temperature 350°C, pressure 100MPa</p>	<p>Cable outlet,8 cooling fins(Ordering code C2,T8H)</p>  <p>* Customized structure, temperature 350°C, pressure 100MPa</p>

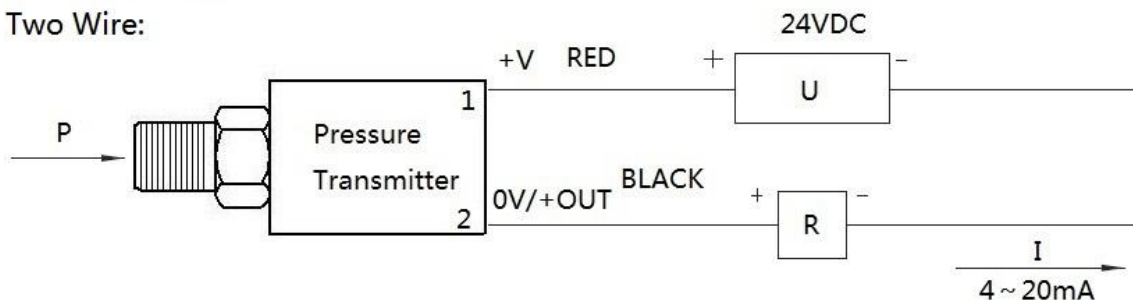
Structure Materials

Ordering Code	Structure	Material
S4	Pressure port	Stainless steel 304 (default)
S6		Stainless steel 316L
X		Customized
M1	Sensor	316L
M2		Titanium diaphragmTA1 And titanium shell TC4
M3		Tantalum diaphragm-Ta
M4		Hastelloy C-276
NB	O-ring	NBR Nitrile sealing ring (Applicable temperature range-40 ~ 120°C)
FK		FKM-Fluoro rubber seal ring (Applicable temperature range -20 ~ 200°C)
ED		EPDM-Epdm sealing ring (Applicable temperature range-55 ~ 150°C)
HB		HNBR-Hydrogenated nitrile sealing ring (Applicable temperature range-40 ~ 150°C)

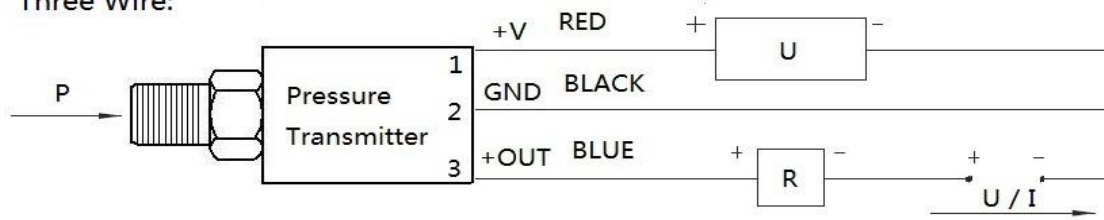
Electrical Connection

Hirschman	Cable Outlet	Two Wire Current	Three Wire Voltage
1	Red	Power (+V)	Power (+V)
2	Black	Power (0V/+OUT)	Common Ground(GND)
3	Blue		Output (+OUT)

Two Wire:



Three Wire:



Ordering Guide

Model	Type					
HPM189	High Temperature pressure transmitter					
	Pressure Range (0~X)MPa	Measuring Range 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			
		Code	Thread Spec			
		P1	M20×1.5			
		P3	G1/4			
		P4	G1/2			
		P8	NPT1/4			
		P9	NPT 1/2			
		Code	Electrical Connection			
		C1	DIN43560			
		C2	Cable Outlet			
		C3	Aviation Connector			
		Code	Structure&Material			
			Diaphragm	Interface	Shell	
		M1	316L	304	Stainless Steel	
		M2	316L	316L	316L	
		M3	Tantalum	Hastelloy C	316L	
		M4	Titanium	Titanium	316L	
		Code	Additional Functions			
		G	Gauge Pressure (Default)			
		A	Absolute Pressure			
		S	Sealed Gauge Pressure			
		v	Fluororubber O-Ring (Default)			
E.G.:HPM189	(0~0.6)MPa	B1	P1	C1	M1	G v