

HPM17-RN Anti-corrosion Pressure Transmitter



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Product Overview

HPM17-RN anti-corrosion pressure transmitter adopts high-performance anti-corrosion ceramic sensor, it uses anti-corrosion plastic as pressure interface, cooperates with electronic conditioning circuit, and is assembled and produced through strict process flow. This product has the characteristics of strong corrosion resistance and wear resistance, and it can complete the pressure measurement and control of corrosive gases, liquids and steam.

This product has outstanding anti-corrosion ability, and its full-plastic structure design perfectly copes with the pressure measurement of various corrosive media. It is widely used in the fields of chemical industry, environmental protection, water treatment and scientific research experiments.

Features

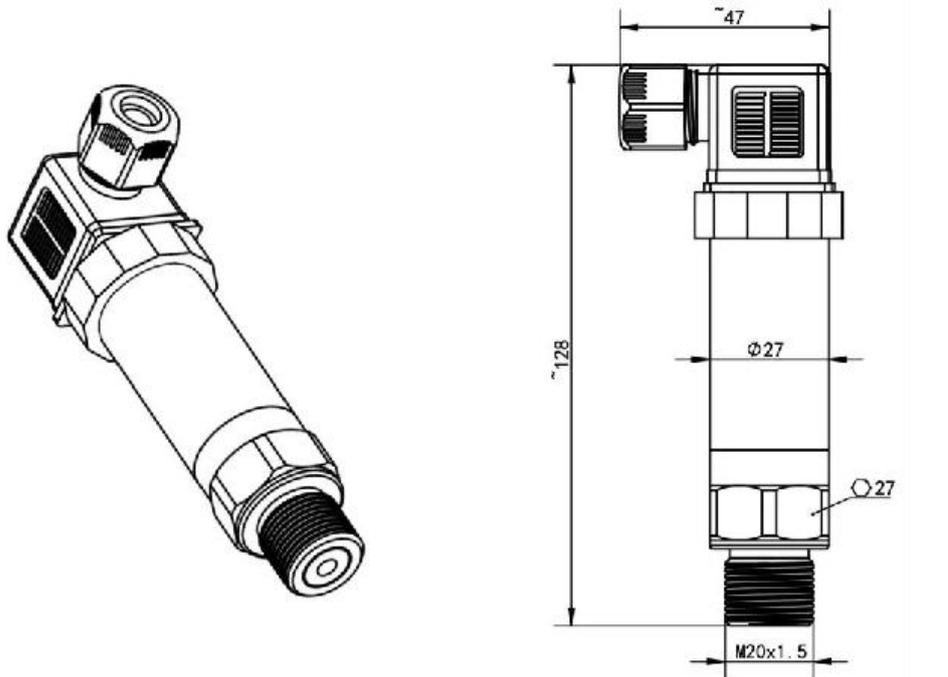
- Anti-corrosion ceramic (96% Al₂O₃) sensor
- Dry core without any filling liquid
- All plastic structure
- Support various anti-corrosion plastic types
- Support a variety of pressure interface customization
- Support multiple output signal

Parameters

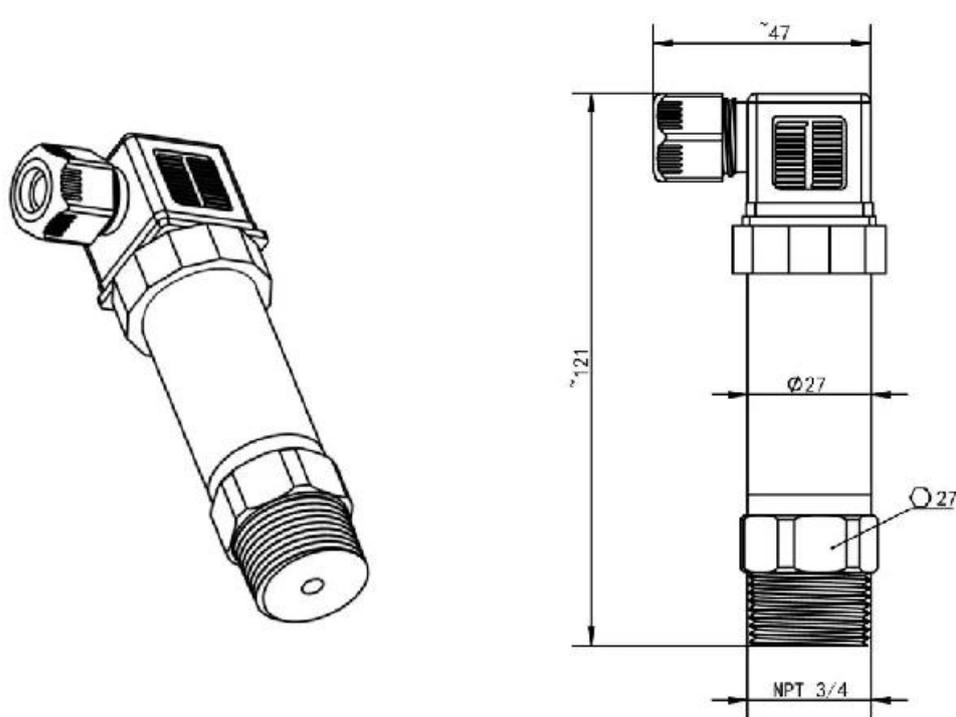
Pressure Range	-1...0 ~ 1...20bar(Gauge);0 ~ 1...20bar(Absolute)
Overload	1.5x of full scale
Measuring medium	various liquid, gas or steam compatible with 304 or 316L stainless steel
Output Signal	4~20mA,voltage, Modbus-RTU/RS485
Accuracy	±0.5%FS(standard); ±0.2%FS (option) Accuracy according to IEC 60770(nonlinearity, hysteresis, repeatability)
Long-term Stability	±0.4%FS/year
Current resolution	≤0.01%
Response time	about 1ms
Boot time	≤3s
Temperature Coefficient of Zero	±0.05%FS/°C (Reference 25°C)
Temperature Coefficient of Full Scale	±0.02%FS/°C (Reference 25°C)
Ambient Temperature	-10 ~ 85°C
Working Temperature	-10 ~ 85°C
Storage Temperature	-10 ~ 85°C
<p>Note: The pressure interface is made of PVC material, and the use temperature of the product is 0 ~ 60°C. The pressure interface is made of PP material, and the use temperature of the product is 0 ~ 85°C.</p>	
Electrical Protection	
Short circuit protection	Permanent
Reverse polarity protection	No damage, circuit inoperative
Electromagnetic compatibility	Conforms to EN 61326
Protection Grade	IP65
Vibration	20g(20~5000Hz)
Impact resistance	50g(11ms)
Insulation resistance	>20MΩ @500VDC
Dielectric strength	<2mA @ 500VAC 1min

Structure Drawing

1. Process connection: M20*1.5 (P1), Hirschmann (C1)

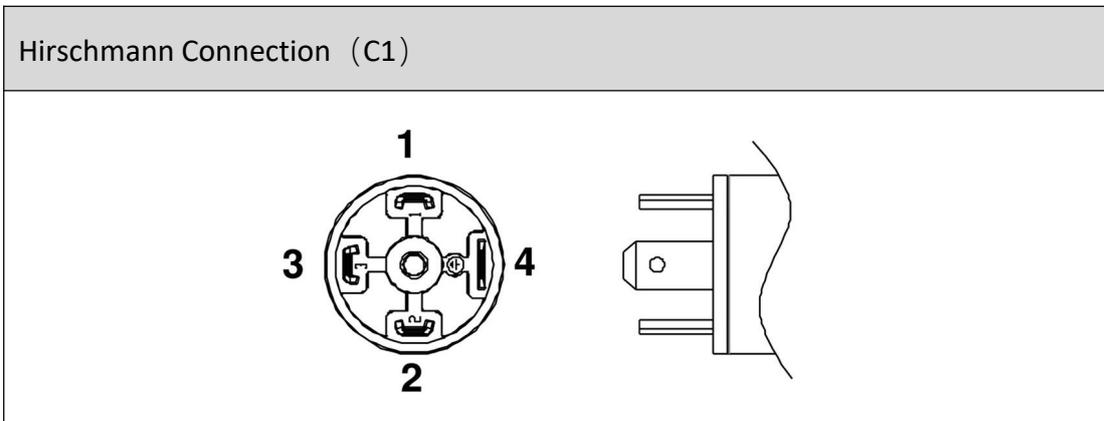


2. Process connection: NPT3/4 (N34), Hirschmann (C1)



Ordering Code	Part	Material
DF	Pressure port	PVDF polyvinylidene fluoride, density 1.78g/cm ³ , Shaw's hardness 77, applicable temperature -10 ~ 140 ° C
PC		PVC polyvinyl chloride, density 1.45g/cm ³ , Shore hardness 79, applicable temperature 0 ~ 60 ° C
PP		PP polypropylene, density 0.91g/cm ³ , Shore hardness 72, applicable temperature 0 ~ 100 ° C
FE		PTFE polytetrafluoroethylene, density 2.17g/cm ³ , Shore hardness 54-60, applicable temperature -200 ~ 260 ° C
M5	Sensor	Ceramic Al ₂ O ₃ 96
FK	O ring	Fluorine rubber FKM (applicable temperature range -20 ~ 200 ° C)
FF		Perfluoroelastomer FFKM (more corrosion-resistant, applicable temperature range -25 ~ 300°C)

Electrical Connection



Hirschmann	Two wire 4 ~ 20mA	Voltage	Modbus-RTU/RS485
1	(+V)	(+V)	(+V)
2	(0V/+OUT)	(GND)	(GND)
3		(+OUT)	RS485A
4			RS485B

Ordering Guide

Item NO.	Type						
HPM17-RN	Anti-Corrosion Pressure Transmitter						
	Pressure Range	Measuring Range					
	(0~X)bar	Fill out X directly					
		Code	Thread Spec				
		B1	(4~20)mA				
		B3	(0~10)V				
		B4	(0~5)V				
		B5	(1~5)V				
		B7	RS485				
		B15	(1~10)V				
		Code	Electrical Connection				
		P1	M20×1.5				
		G12	G1/2				
		G34	G3/4				
		N34	NPT3/4				
		Code	Electrical Interface				
		C1	Hirschmann				
		Code	Sensor				
		M5	Ceramics				
		Code	Connector material				
		DF	PVDF				
		FE	PTFE				
		PC	PVC				
		PP	PP				
		Code	Additional features				
		G	Gauge pressure (default)				

							FK	Fluorine rubber FKM
							FF	Perfluoroelastomer FFKM
							QF	Factory inspection report
							R1	CE certification
								Other requirements
E.g.HPM17-RN	(0~5)bar	B1	P1	C1	M5	FE	G FK QF	