HPM720 Sanitary Pressure Transmitter

Nanjing Hangjia Electronic Technology Co.,Ltd.

Product Overview

HPM720 sanitary pressure transmitter uses a flat membrane to directly sense the pressure signal, uses a silicon pressure core as the sensitive element, and uses standard silicone oil or olive oil as the pressure transmission medium. The measuring end of this product is made of 316L stainless steel, with compact structure, corrosion resistance, vibration resistance, and wide range temperature compensation.

HPM720 sanitary pressure transmitter features an exposed diaphragm on the chuck end face that directly senses pressure, preventing scaling, unsanitary conditions, and blockages caused by viscous pressure. It is suitable for measuring the pressure and level of viscous fluids in the medical and food industries where hygiene is required, solving problems related to scaling, blockages, and cleanliness.

Application

- Food and beverage industry
- Pharmaceutical industry
- Liquid level measurement
- Pressure measurement in the field of industrial process control

Features

- Flush membrane structure
- Optional structure with heat sinks to cope with high temperature media
- Various electrical interfaces
- Various process connections

Technical Parameters

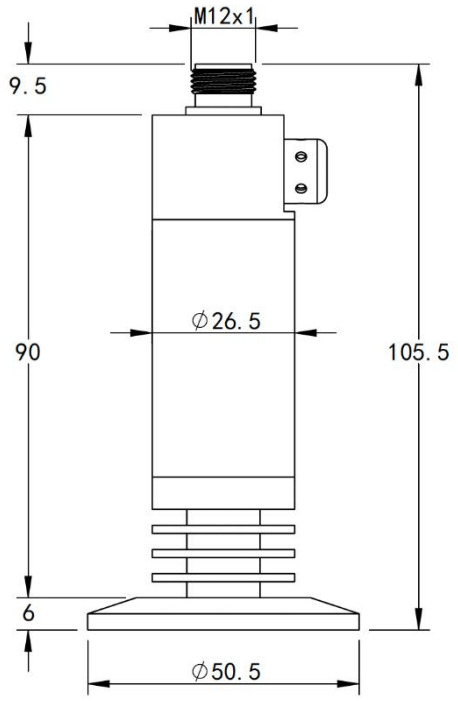
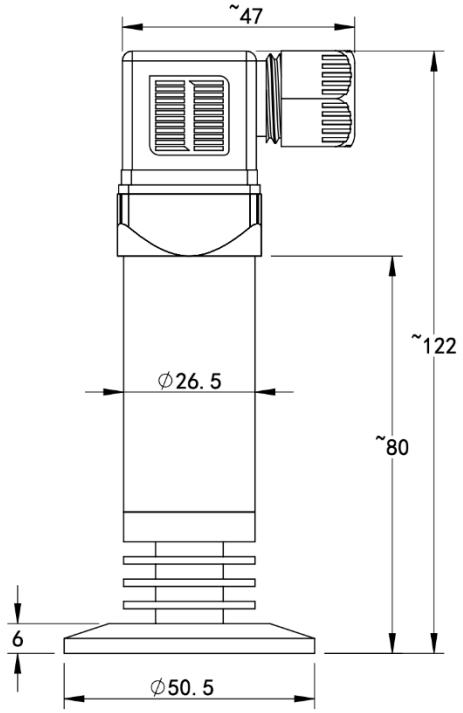
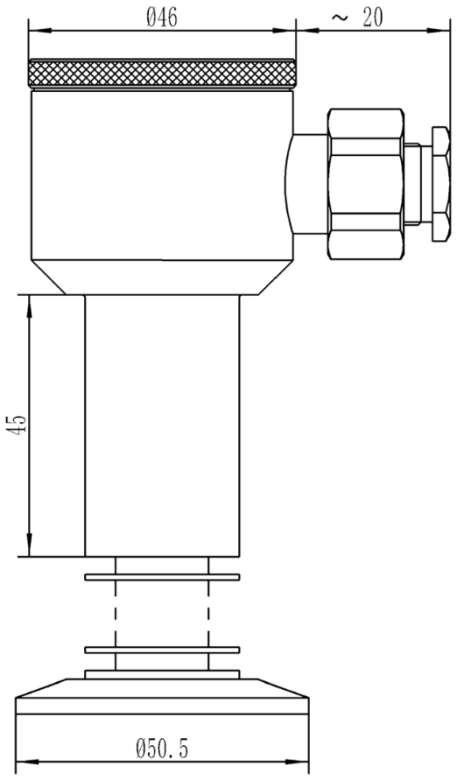
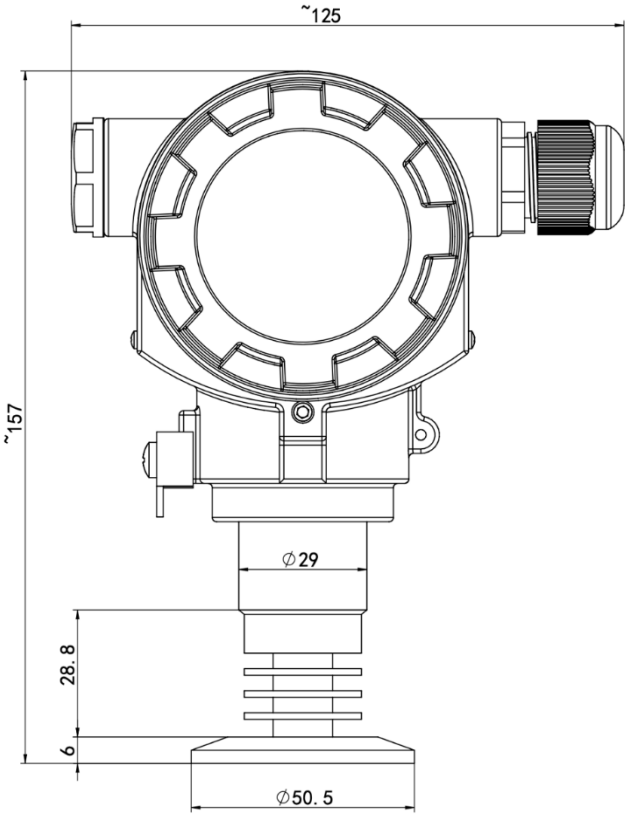
Pressure Range		
Gauge Pressure	-100kPa...0~10kPa...2.5MPa	
Absolute Pressure	0~20kPa...2.5MPa	
Overload	1.5 times of full scale	
Measuring Medium		
Type	Various liquids and gases compatible with contact materials	
Output/Power Supply		
Standard	2-wire:4~20mA / Vs=8~30V	
Standard	2-wire:4~20mA+HART / Vs=12~32V	
Standard	3-wire:0~5V / Vs=8.5~30V or Vs=3.1~8V (Needs to be 0.4V higher than the maximum output voltage.)	
Standard	3-wire:0~10V / Vs=12~30V	
Performance		
Accuracy*	±0.5%FS @ 25℃	
Long term stability	±0.50%FS/year,≤100kPa	

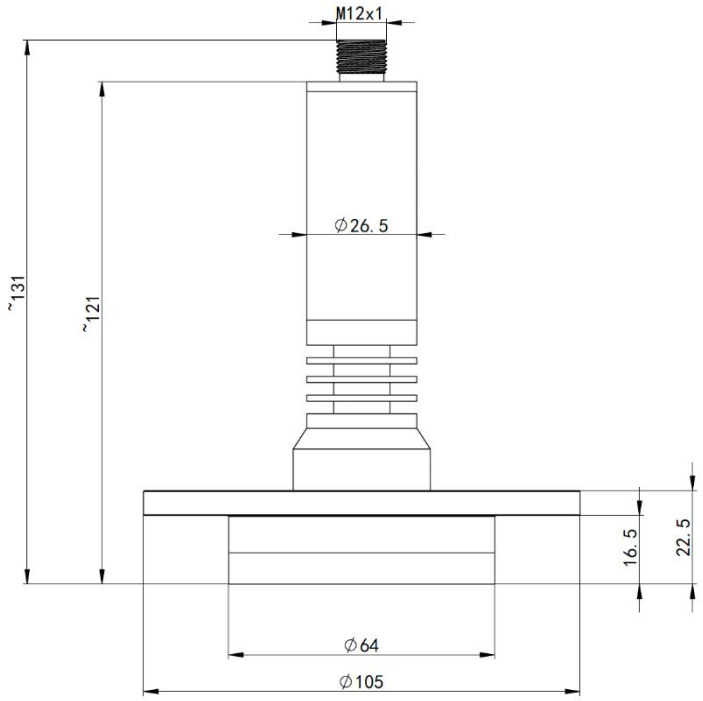
	±0.25%FS/year,>100kPa
(includes linearity, hysteresis, and repeatability) *	
Temperature Drift Characteristics	
Compensation Temperature Range	-5~60℃
Zero temperature drift	±0.4%FS/10℃(within the temperature compensation range,≤100kPa) ±0.3%FS/10℃(within the temperature compensation range,>100kPa)
Fullness temperature drift	±0.3%FS/10℃(within the temperature compensation range)
Environmental Conditions	
Temperature Range	Medium temp.: -40~80℃ (without cooling fins) -40~140℃ (with 3pcs cooling fins) -40~180℃ (with 5pcs cooling fins) Ambient temp.: -40~80℃ Storage temp.: -40~100℃
Protection Grade	IP65, DIN43650 (ordering code:C1) IP65, Cable outlet (ordering code:C2) IP69K, M12x1 (ordering code:C5)
Electrical Protection	
Short circuit protection	Yes
Reverse polarity protection	No damage, circuit inoperative
Mechanical Stability	
Vibration	20g(20~5000Hz)
Shock resistance	50g(11ms)
Insulation	
Insulation resistance	>200MΩ @500VDC
Dielectric strength	<2mA 500VAC 1min

Structural Materials

Ordering Code	Part	Material
S4	Housing	304
S6		316L
S4	Tri-Clamp/Flange	304
S6		316L
S6	Process Connection Diaphragm	316L
HC		Hastelloy C
TA		Tantalum

Structural Drawings (unit: mm)

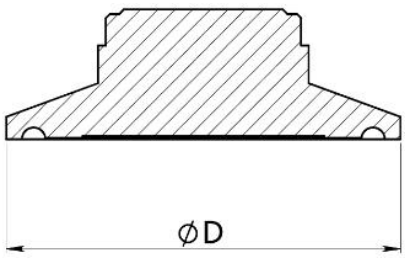
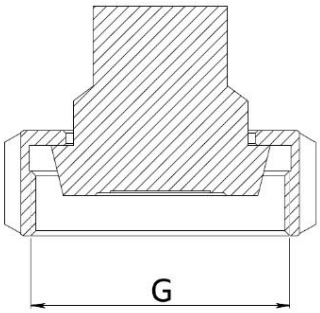
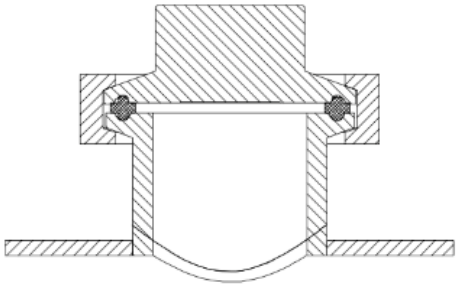
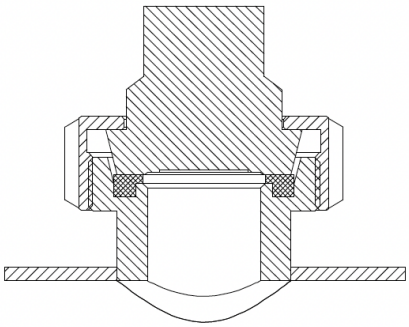
M12×1, Tri-Clamp	DIN43650, Tri-Clamp
	
Protective stainless-steel housing, Tri-Clamp	**2088 housing, Tri-Clamp**
	

M12×1, DRD Flange


Note:

1. The dimensions listed in the picture may change with the update of the process.
2. Please consult us for other shapes.

Process Connection

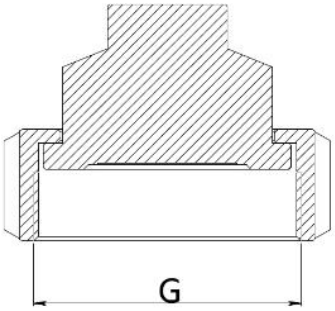
Ordering code K252, K505, K640	Ordering code KD40, KD50
Dimension 	Dimension 
Installation diagram 	Installation diagram 

Standard	Dimension	Diameter(ϕD)	Code
Tri-Clamp	1/2",3/4"	25.2	K252
Tri-Clamp	1",1-1/2"	50.5	K505
Tri-Clamp	2"	64	K640
ISO 2852	DN38	50.5	K505
ISO 2852	DN40~51	64	K640
ISO 2852	DN70~76.1	91	K910
DIN 32676	DN32~40	50.5	K505
DIN 32676	DN50	64	K640
DIN 32676	DN65	91	K910

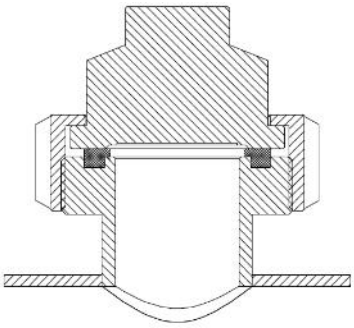
Standard	Dimension	Dimension(G)	Code
DIN 11851	DN40	Rd 65*1/6	KD40
DIN 11851	DN50	Rd 78*1/6	KD50

Ordering code KS112, KS2

Dimension



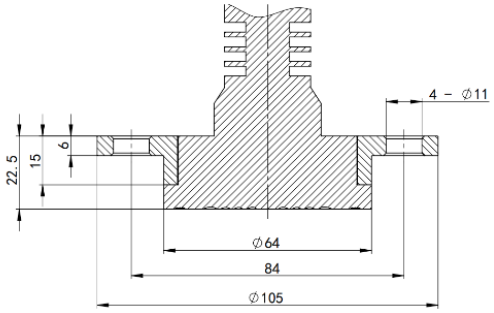
Installation diagram



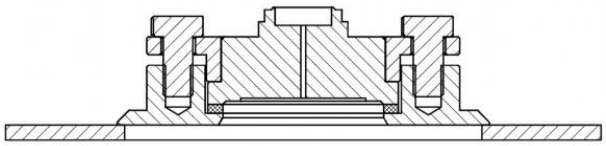
Standard	Dimension	Dimension(G)	Code
SMS	1-1/2"	Rd 60*1/6	KS112
SMS	2"	Rd 70*1/6	KS2

Ordering code KDRD

Dimension



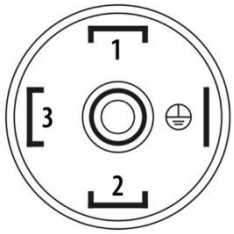
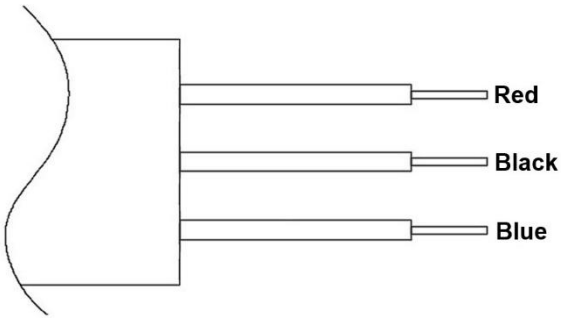
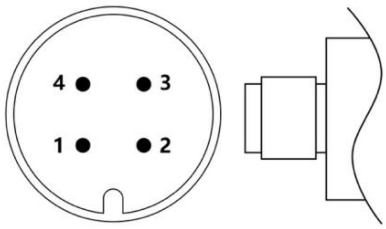
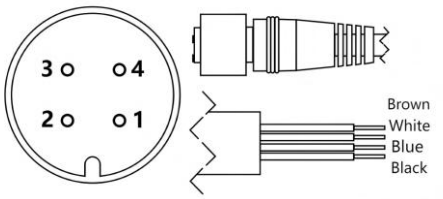
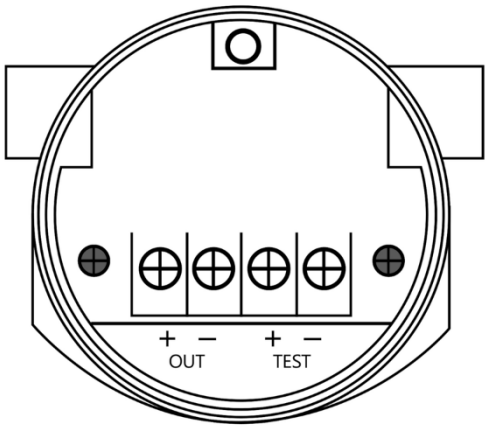
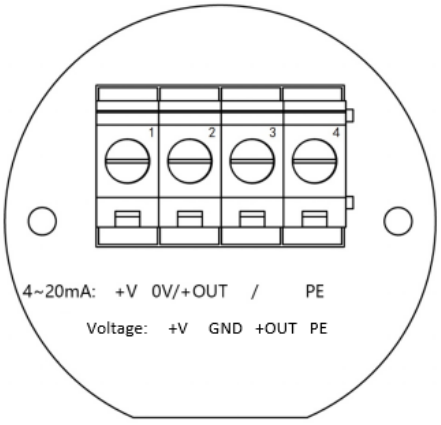
Installation diagram



Recommended Gasket Size:64*48*2

Standard	Dimension	Code
DRD	DN50	KDRD

Electrical Connection

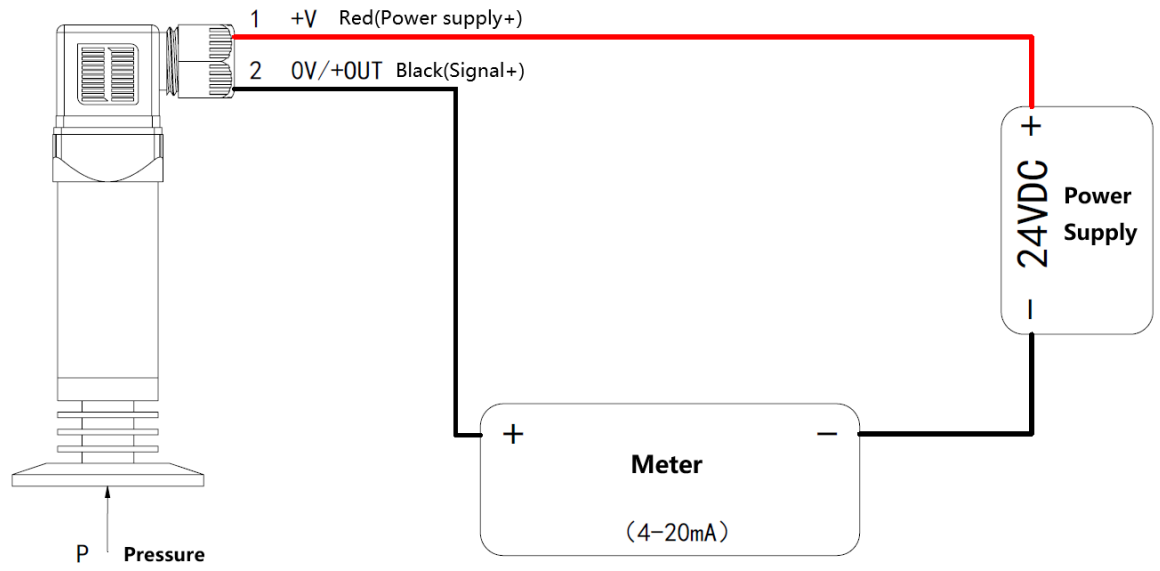
Hirschmann DIN43650(Ordering code C1)	Cable outlet (Ordering code C2)
	
M12×1(Ordering code C5)	**M12×1, with cable (Ordering code C5X)**
	
Cable gland, 2088 housing type (Ordering code C7)	**Cable Gland, protective housing type (Ordering code C9)**
	

2-wire 4~20mA current output		
Signal Definition	Power supply+(+V)	Power supply-(0V/+OUT)
Hirschmann DIN43650	1	2
Cable Outlet	Red	Black
M12×1	1	3
M12×1 with cable	Brown	Blue
Cable gland,2088 housing	OUT+	OUT-
Cable gland, protective stainless-steel housing	+V	0V/+OUT

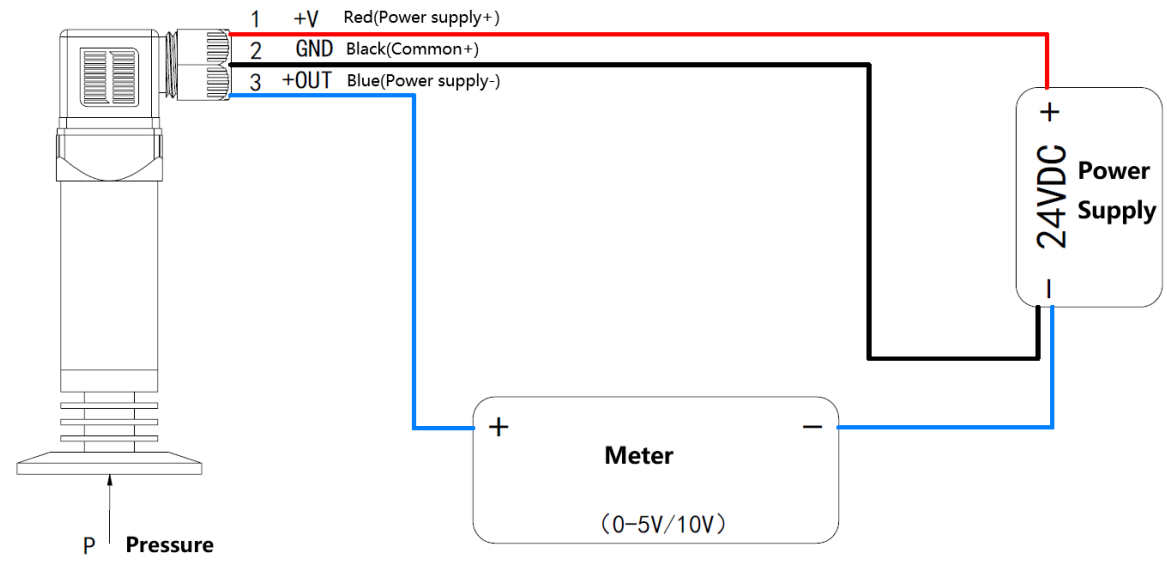
3-wire 0~5V/10V voltage output			
Signal Definition	Power supply+(+V)	Power supply-(GND)	Signal+(+OUT)
Hirschmann DIN43650	1	2	3
Cable Outlet	Red	Black	Blue
M12×1	1	3	2
M12×1 with cable	Brown	Blue	White
Cable gland,2088 housing	OUT+	OUT-	TEST+
Cable gland, protective stainless-steel housing	+V	GND	+OUT

Wiring Diagram

2-wire 4~20mA current output



3-wire 0~5V/10V voltage output



Ordering Guide

Model	Type							
HPM720	Sanitary pressure transmitter							
	Range	Measuring Range						
	(X_1 ~ X_2)bar	X_1 is the lower limit X_2 is the upper limit						
		Code	Output Signal					
		B1	(4 ~ 20)mA					
		B3	(0 ~ 10)V					
		B4	(0 ~ 5)V					
			Code	Process Connection				
			K252	Tri-Clamp 1/2" Tri-Clamp 3/4"				
			K505	Tri-Clamp 1-1/2" ISO 2852 DN38 DIN 32676 DN32-40				
			K640	Tri-Clamp 2" ISO 2852 DN40-51 DIN 32676 DN50				
			KDRD	DRD DN50				
			KS112	SMS 1-1/2"				
			KS2	SMS 2"				
				Code	Electrical Interface			
				C1	DIN43650 Hirschmann			
				C2	Cable outlet			
				C5	M12×1			
				C5X	M12×1 with cable			
				C7	Cable gland,2088 housing			
				C9	Cable gland, protective stainless-steel housing			
					Code	Housing Materials		
					S4	304		
					S6	316L		
						Code	Clamp or flange Materials	
						S4	304	
						S6	316L	
							Code	Diaphragm
							S6	316L
							HC	HaC
							TA	Tantalum
								Code / Others
								G / Gauge pressure
								S / Sealed gauge pressure
								A / Absolute pressure
								T3 / Three-fin heat sink
								T5 / Five-fin heat sink
								NT / Without heat sink
								FE / PTFE spray
								NS / Normal temperature silicone oil (-30 ~ 150℃)
								HS / High temperature silicone oil (150 ~ 320℃)
								OL / Olive oil (-10 ~ 120℃)
								NM / NeoBee M-20(-10 ~ 180℃)
								EP / Electrolytic polishing treatment for wetted parts
								QF / factory inspection report
								/ Other customization requirements.
eg:HPM720	(0 ~ 1)bar	B1	K505	C1	S4	S6	S6	G T3 NS

Certification Information

Factory certification	
Certification organization	CQM
Quality management system	ISO 9001:2015
Certification scope	Research, development and manufacture of pressure transmitter and temperature transmitter
Certificate No.	00223Q21711R1S
CE	
Certification organization	ECM
Certification scope	Pressure Transmitter
Standard	EN61326-1:2013
	EN61326-2-3:2013
	EN61000-6-2:2005/AC:2005
	EN61000-6-4:2007+A1:2011
Certificate No.	3Z200408.NHET098