

HPM720 Sanitary Pressure Transmitter



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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.

The HPM720 sanitary pressure transmitter directly senses pressure due to the exposed diaphragm on the end face of the chuck, which can prevent problems such as scaling, unhygienic and sticky pressure blockage, and is especially suitable for medical and food industries.

For industries with hygienic requirements, viscous fluid pressure and level measurement solves problems such as scaling, blockage, cleaning and hygiene.

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 sink 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	1.5x of full scale
Measuring Medium	
Type	Various liquids and gases compatible with contact materials
Output/Power Supply	
Standard	Two wire: 4~20mA / Vs=8~30V
Standard	Two wire: 4~20mA+HART / Vs=12~32V
Standard	Three wire: 0 ~ 5V / Vs=8.5~30V or Vs=3.1~8V (At the same time need to be higher than the maximum output voltage of 0.4V)
Standard	Three wire: 0 ~ 10V / Vs=12~30V

Performance	
Accuracy*	±0.5%FS @ 25°C

Long term stability	$\pm 0.50\%FS/year, \leq 100kPa$ $\pm 0.25\%FS/year, >100kPa$
(includes linearity, hysteresis, and repeatability)*	
Temperature Drift Characteristics	
Compensation temperature range	-5 ~ 60°C
Zero temperature drift	$\pm 0.4\%FS/10^{\circ}C$ (within the temperature compensation range), $\leq 100kPa$ $\pm 0.3\%FS/10^{\circ}C$ (within the temperature compensation range), $>100kPa$)
Fullness temperature drift	$\pm 0.3\%FS/10^{\circ}C$ (within the temperature compensation range)

Environmental Conditions	
Temperature Range	Medium range: -40 ~ 80°C (without cooling fins) -40 ~ 140°C (with 3pcs cooling fins) -40 ~ 180°C (with 5pcs cooling fins) Ambient temp.: -40 ~ 80°C Storage temp.: -40 ~ 100°C
Protection Grade	IP65, Hirschmann IP65, Cable outlet IP69K, M12×1

Electrical Protection	
Short circuit protection	Yes
Reverse polarity protection	No damage, circuit inoperative

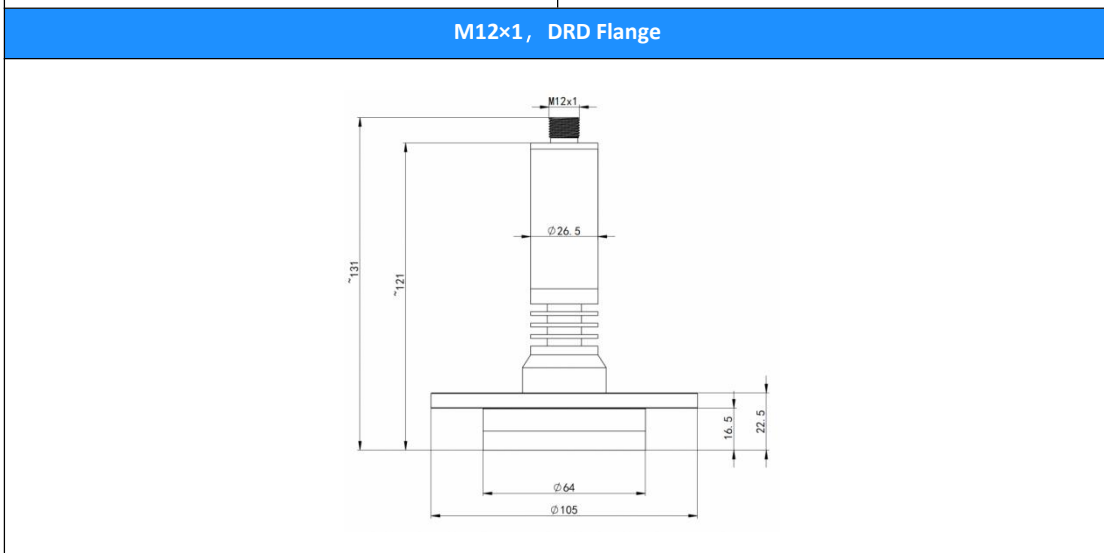
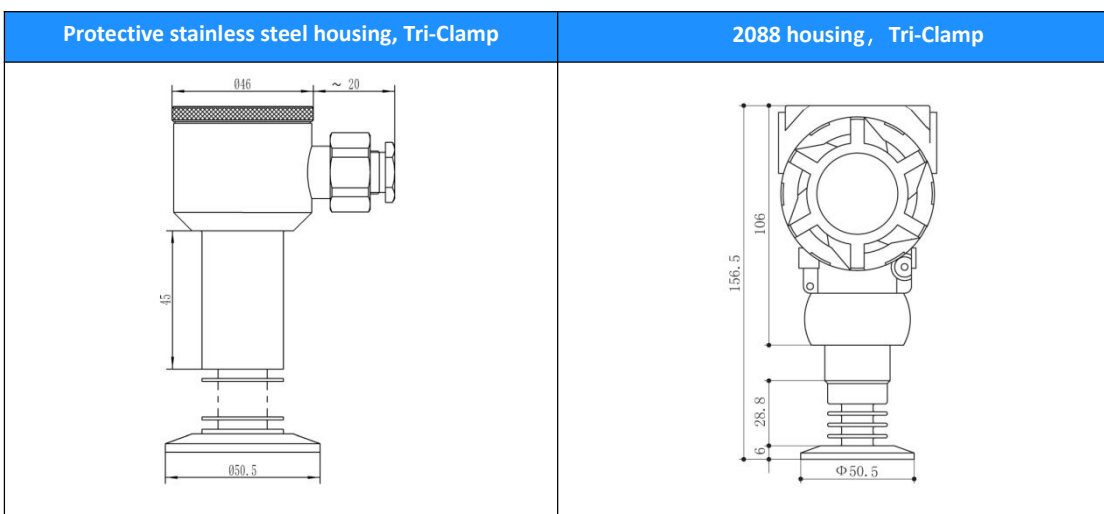
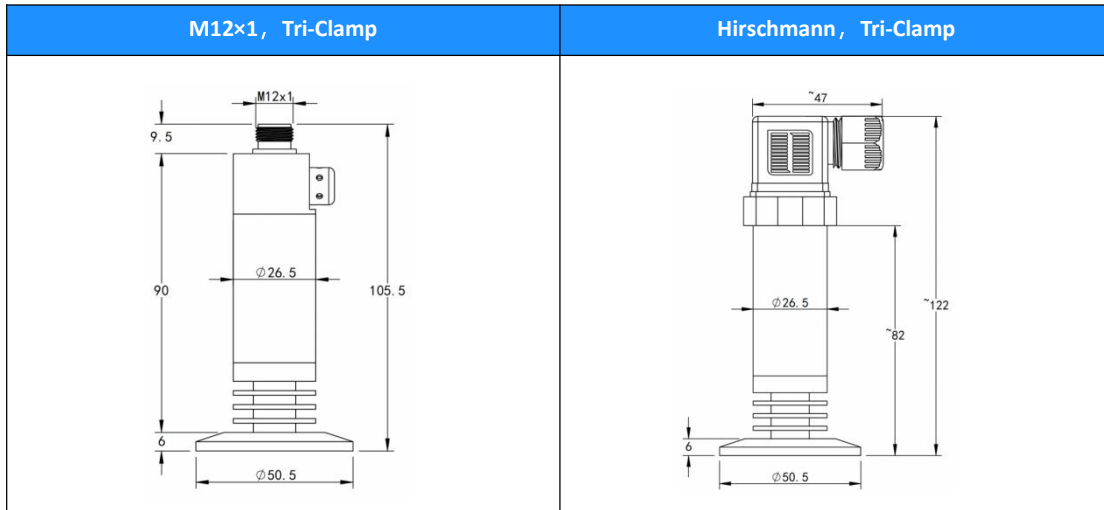
Mechanical Stability	
Vibration	20g(20~5000Hz)
Shock resistance	50g(11ms)

Insulation	
Insulation resistance	$>200M \Omega @500VDC$
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	316L
HC	Connection	Hastelloy C
TA	Diaphragm	Tantalum

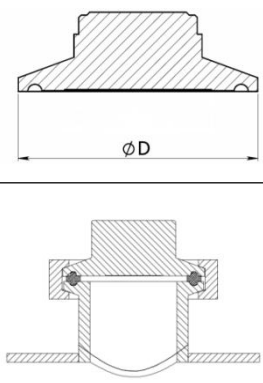
Structural Drawings(unit:mm)



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

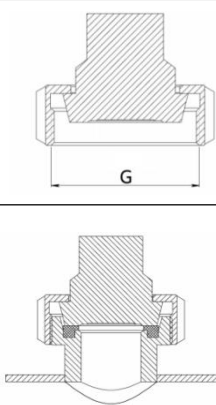
Process Connection

Ordering code: K252、K505、K640



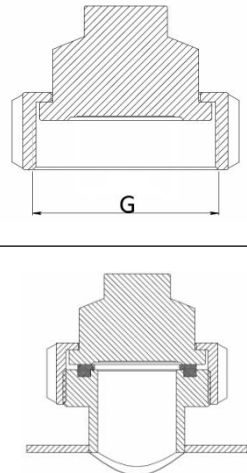
Standard	Dimension	Diameter (ϕD)	Code
Tri-Clamp	1/2"、3/4"	25.2	K252
Tri-Clamp	1"、1-1/2"	50.5	K505
Tri-Clamp	2"	64	K640
ISO 2852	DN38	50.5	K505
ISO 2852	DN40~51	64	K640
ISO 2852	DN70~76.1	91	K910
DIN 32676	DN32~40	50.5	K505
DIN 32676	DN50	64	K640
DIN 32676	DN65	91	K910

Ordering code: KD40、KD50



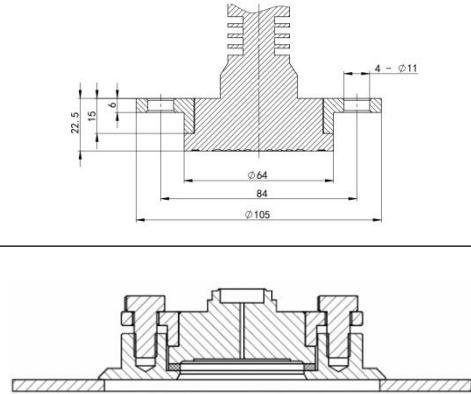
Standard	Dimension	Dimension (G)	Code
DIN 11851	DN40	Rd 65*1/6	KD40
DIN 11851	DN50	Rd 78*1/6	KD50

Ordering code: KS112、KS2



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

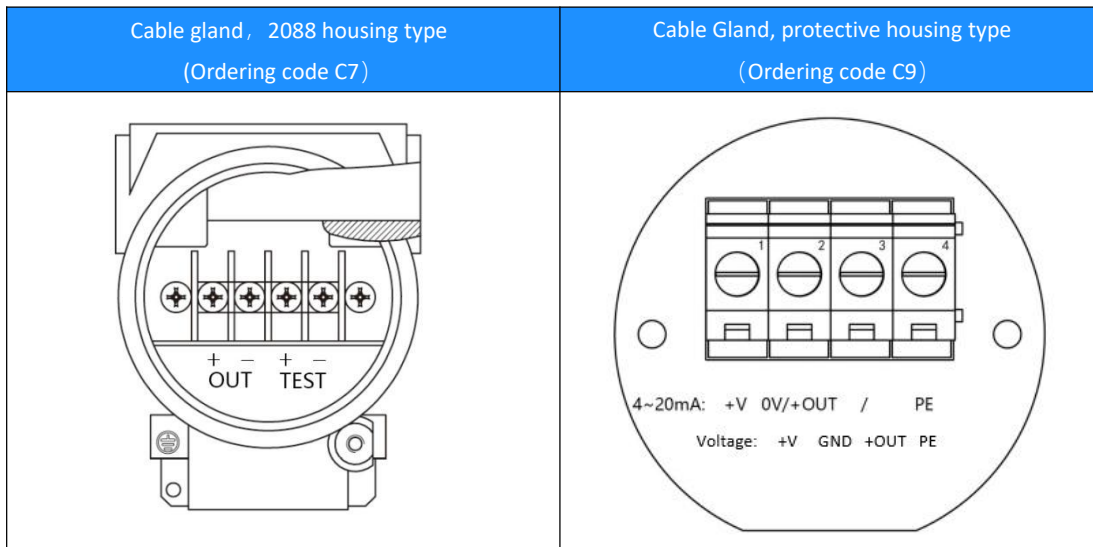
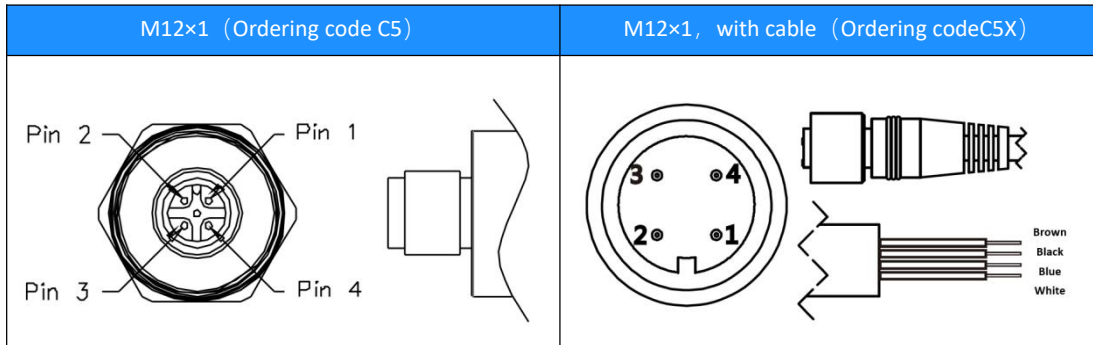
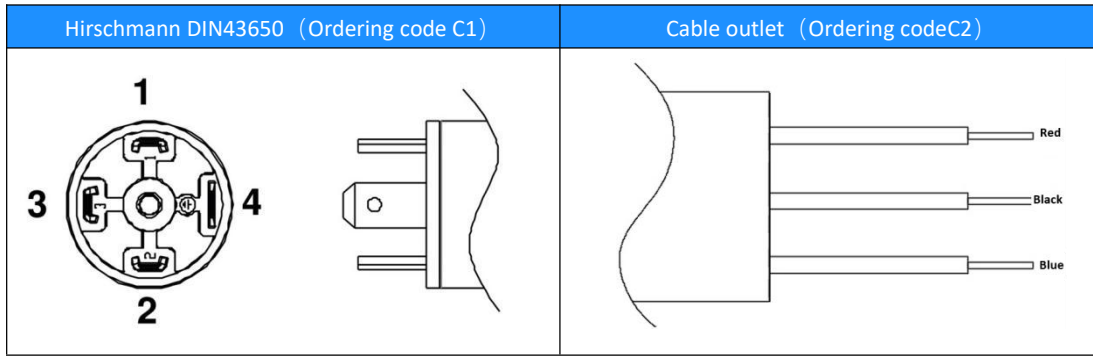
Ordering code KDRD



Recommended Gasket Size: 64*48*2

Standard	Dimension	Code
DRD	DN50	KDRD

Electrical Connection



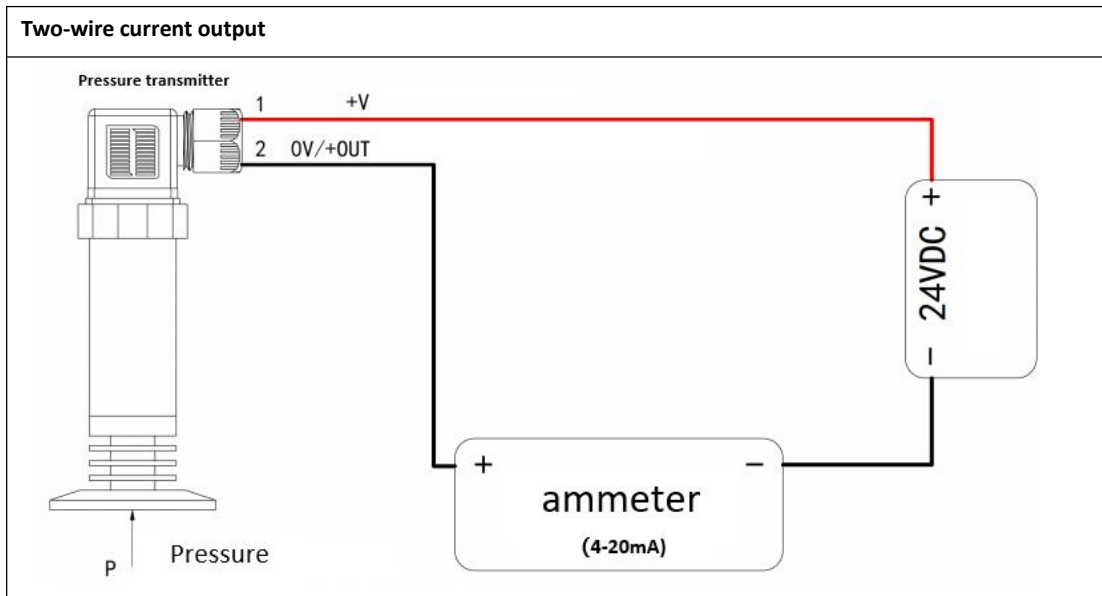
Two wire 4 ~ 20mA current output		
Signal Definition	Power supply+(+V)	Power supply-(0V/+OUT)
Hirschmann DIN43650	1	2
Cable Outlet	red	black
M12×1	1	2
M12×1 with cable	brown	black
Cable gland, 2088 housing	OUT+	OUT-
Cable gland, protective SS housing	+V	0V/+OUT

Three wire 0~5V/10V voltage output

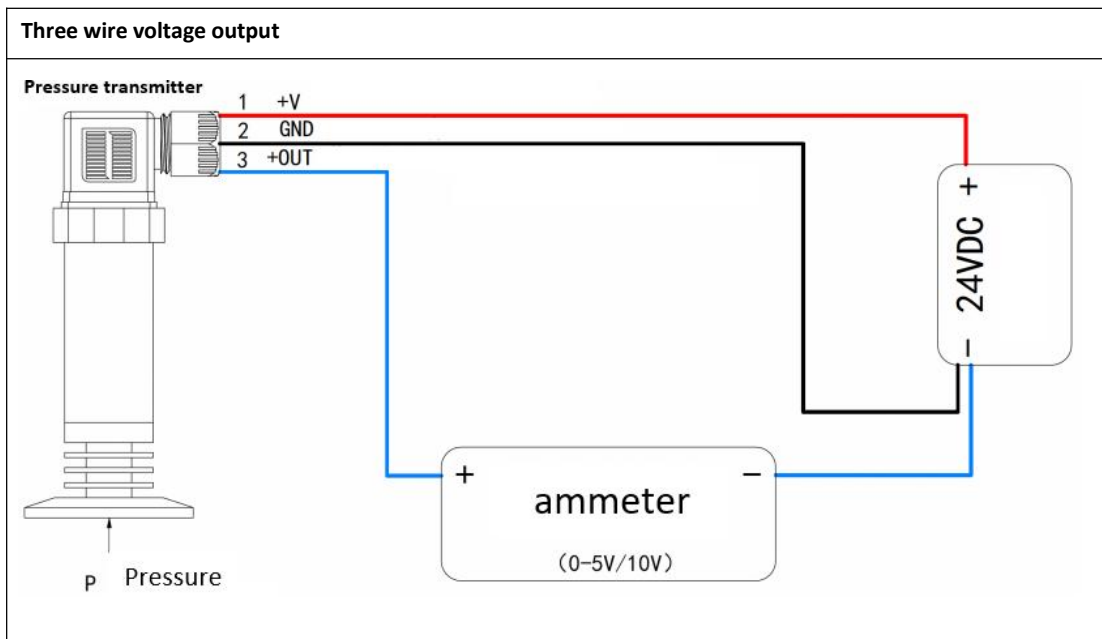
Signal Definition	Power supply+(+V)	Power supply-(GND)	Signal+(+OUT)
Hirschmann DIN43650	1	2	3
Cable Outlet	red	black	blue
M12×1	1	2	3
M12×1 with cable	brown	black	blue
Cable gland , 2088 housing	OUT+	OUT-	TEST+
Cable gland , protective SS housing	+V	GND	+OUT

Wiring Diagram

Two-wire current output



Three wire voltage output



Ordering Guide

Model Type	HPM720 Sanitary Pressure Transmitter
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Measuring Range (X1~X2)bar

Code	Output Signal
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B1 (4-20)mA

B3 (0-10)V

B4 (0-5)V

Code	Process Connection
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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 Connection
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C1 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 Material
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S4 304

S6 316L

Code	Tri-clamp or Flange Material
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S4 304

S6 316L

Code	Diaphragm
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S6 316L

HC HastelloyC

TA Tantalum

Code	Additional Functions
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G Gauge Pressure

S Sealed Gauge Pressure

A Absolute Pressure

T3	3pcs Cooling Fins
T5	5pcs CoolingFins
NT	No Temperature Cooling Fins
FE	PTFE
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 of liquid-connected parts

E.G.:HPM720 (0~1)bar-B1-K505-C1-S4-S6-S6-G T3 NS