

HPM710 Flat Film Hygienic Pressure Transmitter



Nanjing Hangjia Electronic Technology Co.,Ltd.

Overview

HPM710 Flat Film Hygienic Pressure Transmitter adopts flat film which can directly receive the pressure signal and adopts the silicon pressure core as sensitive element and the standard silicon oil or olive oil as pressure transmission medium. The measuring terminal of product uses 316L stainless steel with compact structure, corrosion resistance, vibration resistance and wide range of temperature compensation. Because the exposed stress diaphragm at the end of thread can directly receive the pressure, it can solve the problems like scale formation, insanitation and blocking of viscous pressure, especially suitable for the measurement of viscous fluid and liquid level with hygienic requirements in the fields of medicine and food.

Application: medicine, food, wine making, dairy products, drinks and other viscous easily blocked sanitary requirements for easy cleaning occasions; Environmental protection chemical coating, polyurethane equipment, paint detection system

Features

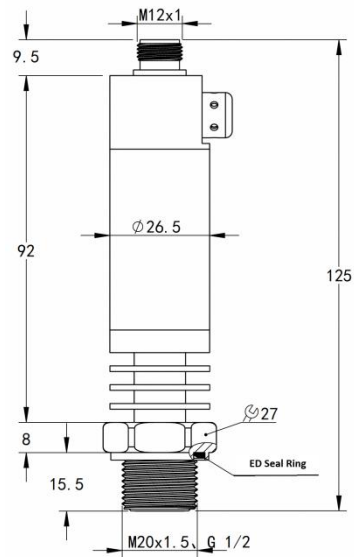
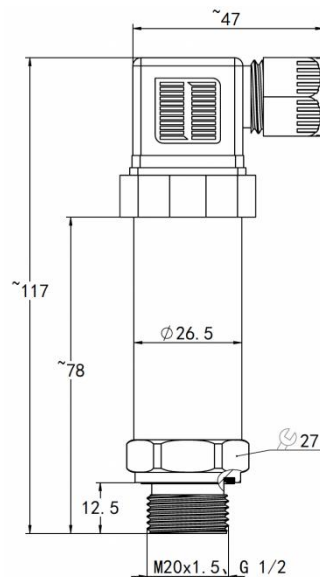
- .pressure interface adopts 316L flat film structure
- .hygienic type, scale formation resistance
- .short-circuit protection and reverse polarity protection
- .with cooling fin design optional, excellent application performance for high temperature mediums
- .optional various output signal , can be customized according to requirements

Technical Parameters

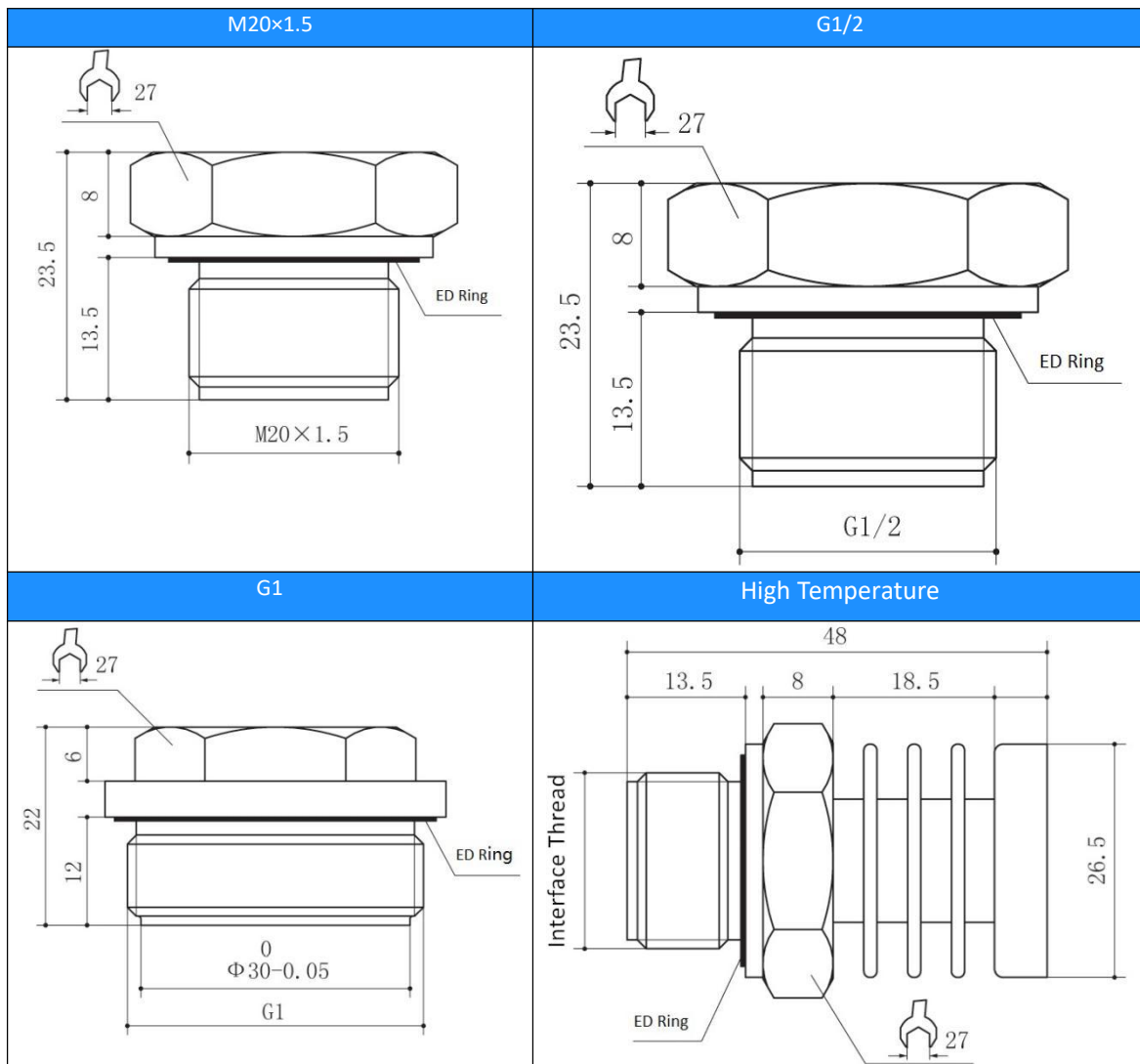
Measuring Medium	Various liquid and gas compatible with 316L stainless steel
Pressure Range	-100kPa...0~20kPa...40MPa
Overload	1.5 times pressure range of full scale
Pressure Type	Gauge pressure, absolute pressure or sealed gauge pressure
Accuracy	0.5%FS
Long-Term Stability	$\pm 0.50\%$ FS/Year, $\leq 100\text{kPa}$ $\pm 0.25\%$ FS/Year, $> 100\text{kPa}$ (includes linearity, hysteresis, and repeatability)*

Output Signal /Power Supply	Two wire, 4~20mA / Vs=8~30V Two wire, 4~20mA+HART / Vs=12~32V Three wire: 0 ~ 5V / Vs=8.5~30V or Vs=3.1~8V(Also need to be higher than the maximum output voltage 0.4V) Three wire: 0~10V / Vs=12~30V
Temperature Coefficient of Zero	0.4%FS/10℃
Temperature Coefficient of Full Scale	0.3%FS/10℃
Medium Temperature	-40 ~ 80℃ -Without cooling fins -40 ~ 140℃ -With 3pcs cooling fins -40 ~ 180℃ -With 5pcs cooling fins
Ambient Temperature	-40 ~ 80℃
Storage Temperature	-40 ~ 100℃
Ingress Protection of Shell	IP65, Hirschmann IP65, Cable outlet IP69K, M12×1

Electrical protection	
Short circuit protection	Yes
Reverse polarity protection	No damage, circuit does not work
Mechanical stability	
Vibration	20g (20~5000Hz)
Impact resistance	50g(11ms)

Structure Drawings**M12×1, With 3pcs cooling fins****Hirschmann, without cooling fins**

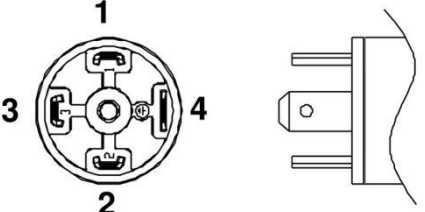
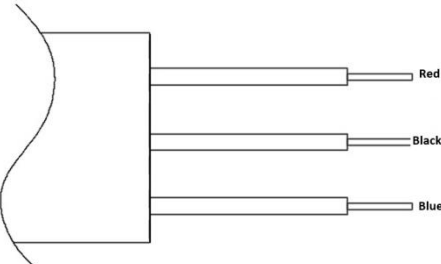
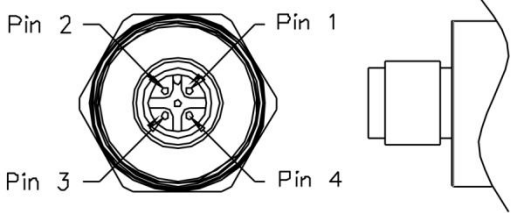
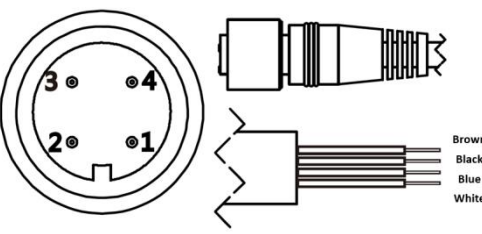
Pressure Port



Note:

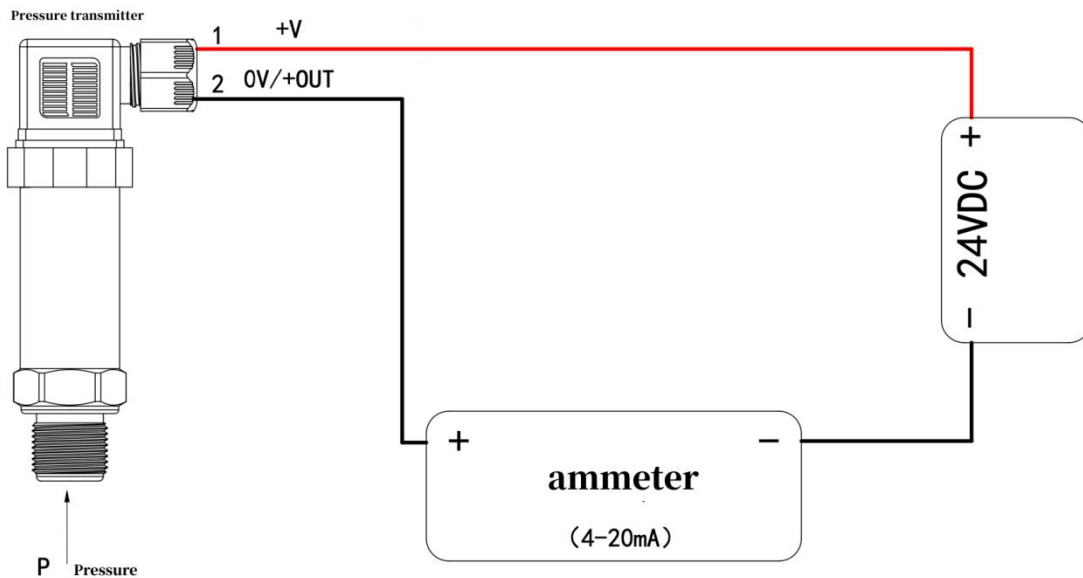
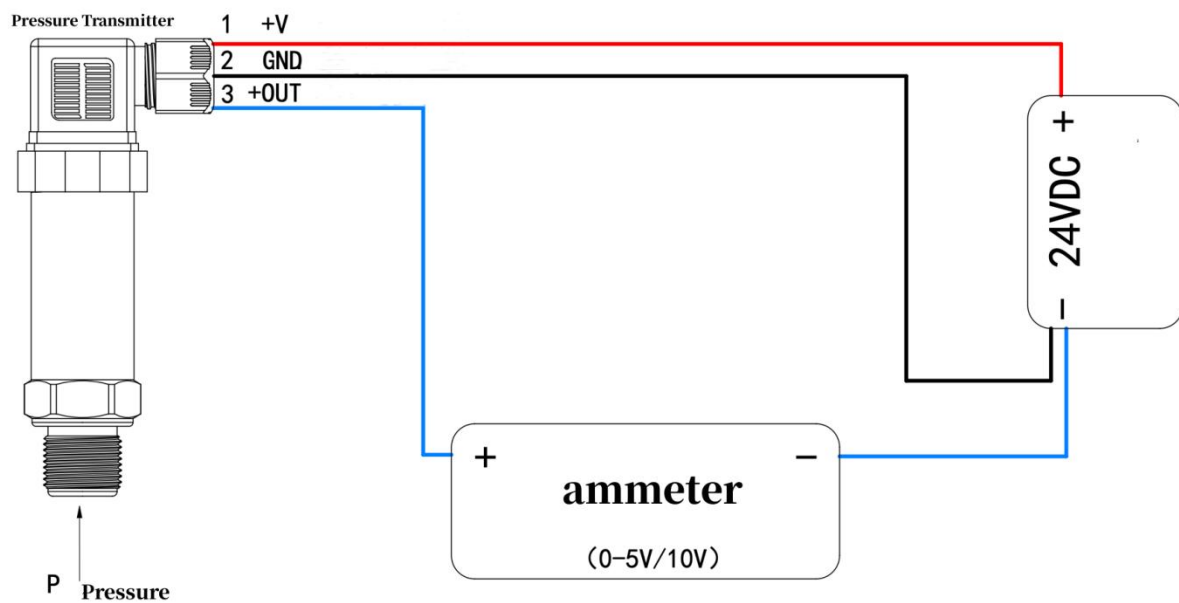
1. The dimensions listed in the picture may change as the technology is updated.
2. For other shapes, please consult us.

Electrical Connection

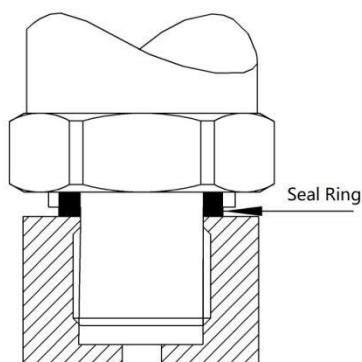
Hirschmann DIN43650	Cable Outlet
	
M12×1	M12×1, with cable
	

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

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

Wiring Diagram**A: Two wire 4 ~ 20mA current output****B: Three wire voltage output**

Process Connection



Tips:

- 1.The thread length of the pressure transmitter must be less than the depth of the base thread to ensure the effective seal of the root gasket
- 2.Flush film pressure transmitter front diaphragm can not touch the bottom of the base

Ordering Code

Item NO.	Type										
HPM710	Flat Film Hygienic Pressure Transmitter										
		Pressure Range	Measuring Range								
		(0~X)kPa	Fill out X directly								
				Code	Output Signal						
				B1	(4~20)mA						
				B3	(0~10)V						
				B4	(0~5)V						
				B5	(1~5)V						
				Code	Thread Spec						
				KG12	G1/2						
				KG1	G1						
				KP1	M20×1.5						
				Code	Electrical Connection						
				C1	DIN43650						
				C2	Cable Outlet						
				C5	M12*1						
				C5X	M12*1 with cable						
				Code	Pressure Port						
				S6	316L						
				Code	Housing Material						
				S4	304						
				S6	316L						
				Code	Cooling Fins						

							T3	3pcs	
							T5	5pcs	
							NT	without	
								Code	Additional Functions
								G	Gauge
								S	Sealed Gauge
								A	Absolute
								NB	NBR Nitrile Seals
								FK	FKM Fluorine Rubber Seals
								ED	EPDM Seals
								FF	Perfluoroelastomer FFKM seals
HPM710	(0~1)Bar	B1	KG12	C1	S6	S4	T3	G NB	