HPM730 Hard Flush Diaphragm

Pressure Transmitter

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Overview

HPM730 hard flush diaphragm pressure transmitter uses hard flush diaphragm to directly sense pressure signal, which is suitable for measuring high viscosity liquid, especially for measuring high viscosity and fluid with particles such as mud, cement, crude oil, etc. This product has a wide range, various pressure interfaces and electrical interfaces, and is equipped with a variety of distinctive structural designs and circuit designs, making this product suitable for a variety of harsh working environments.

Features

- Hard diaphragm, resistant to particles and impurities
- Pure flat pressure sensing structure, no risk of pressure inlet hole clogging
- Multiple process connections
- Multiple electrical interfaces

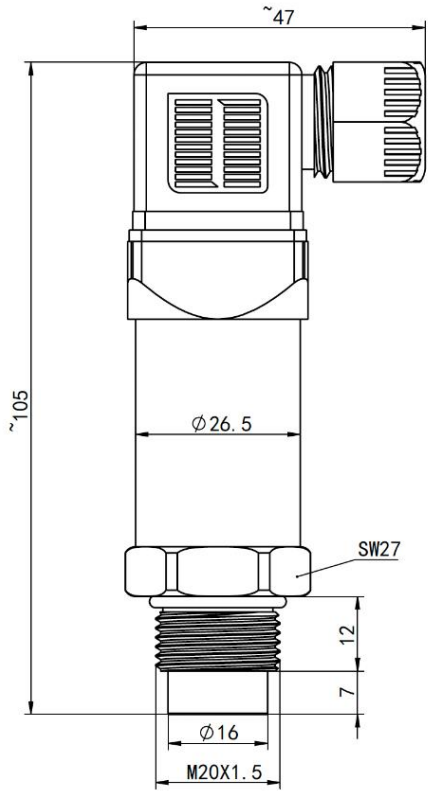
Technical Parameters

Measuring Medium	Various liquid and gas compatible with wetted material
Pressure Range	-100kPa…0~500kPa…150MPa (gauge pressure)
Overload	1.5 times of full scale
Output Signal/Power Supply (1)	2-wire 4~20mA / Vs=8~30V
Output Signal/Power Supply (2)	2-wire 4~20mA+HART / Vs=12~32V
Output Signal/Power Supply (3)	3-wire 0~10V / Vs=12~30V
Output Signal/Power Supply (4)	4-wire RS485 / Vs=9~30V
Accuracy	±0.5%FS
Long-Term Stability	±0.5%FS/year
Compensation Temperature Range	0~70℃
Temperature Coefficient of Zero	±2.0%FS (in compensation temperature range)
Temperature Coefficient of Full Scale	±2.0%FS (in compensation temperature range)
Medium Temperature	-40~85℃
Ambient Temperature	-40~80℃

Storage Temperature	-40~80℃
Ingress Protection	IP65, DIN43650/Hirschmann electronic connection IP66, Cable outlet IP66, M12×1
Short circuit protection	With
Reverse polarity protection	No damage, the circuit does not work
Vibration	20g (20~5000Hz)
Impact resistance	50g(11ms)
Insulation resistance	>100MΩ @500VDC
Dielectric strength	<2mA 500VAC 1min

Structure Drawings (unit: mm)

M20x1.5 process connection, DIN43650 electrical connection

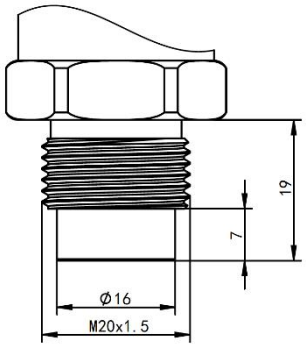
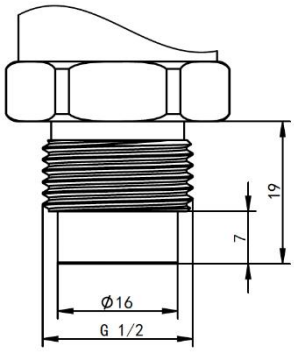
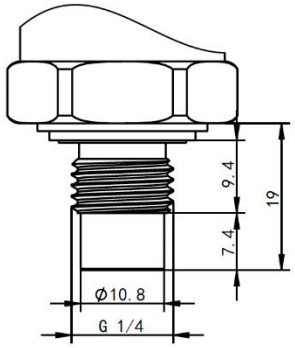


Note: The dimensions listed in the figure may change with the update of the process.

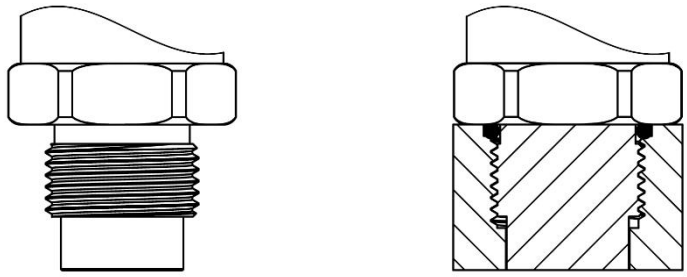
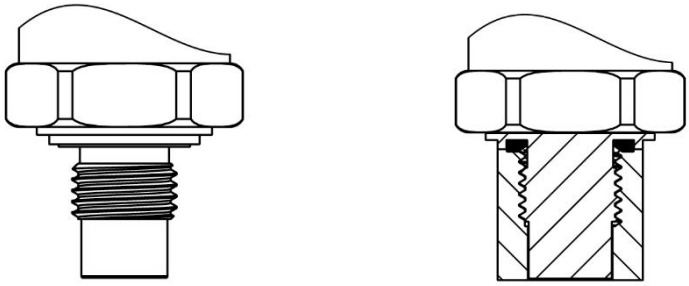
Housing Material

Code	Part	Note
S4	Shell	SS304 material
S4	Process connection	SS304 material, M20×1.5, G1/2, G1/4 on demand
PH	Diaphragm	17-4PH

Process connection

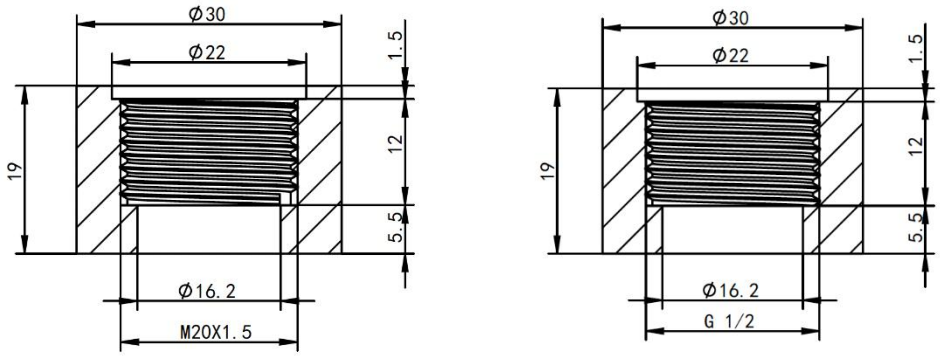
M20×1.5 (Code:KP1)	G1/2(Code: KG12)	G1/4(Code:KG14)
Max pressure: 150MPa	Max pressure: 150MPa	Max pressure: 70MPa
		

Installation Diagram

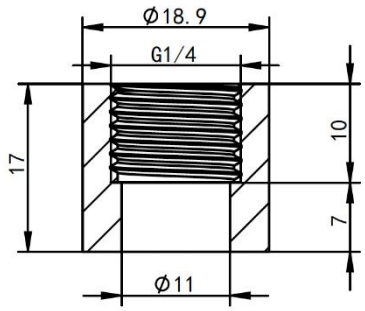
M20×1.5 (Code: KP1)、G1/2(Code:KG12)

G1/4(Code: KG14)


Installation accessories (unit: mm)

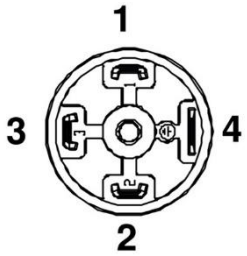
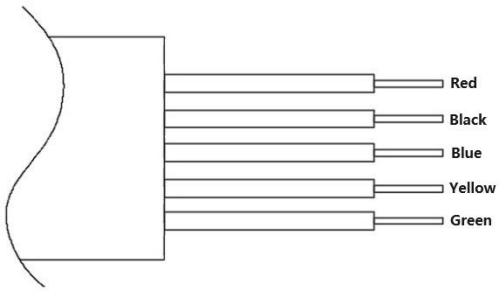
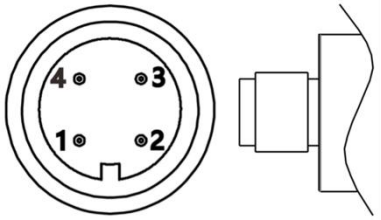
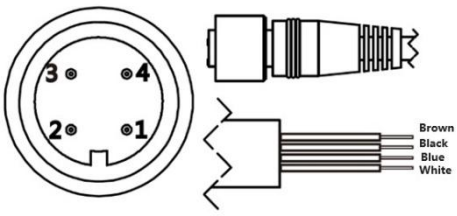
Welding base, SS304 material (suitable for M20×1.5 type, G1/2 type)



Welding base, SS304 material (suitable for G1/4 type)



Electrical Interface

DIN43650/Hirschmann（Code: C1）	Cable outlet（Code: C2）
	
M12×1（Code: C5）	**M12×1，with cable（Code: C5X）**
	

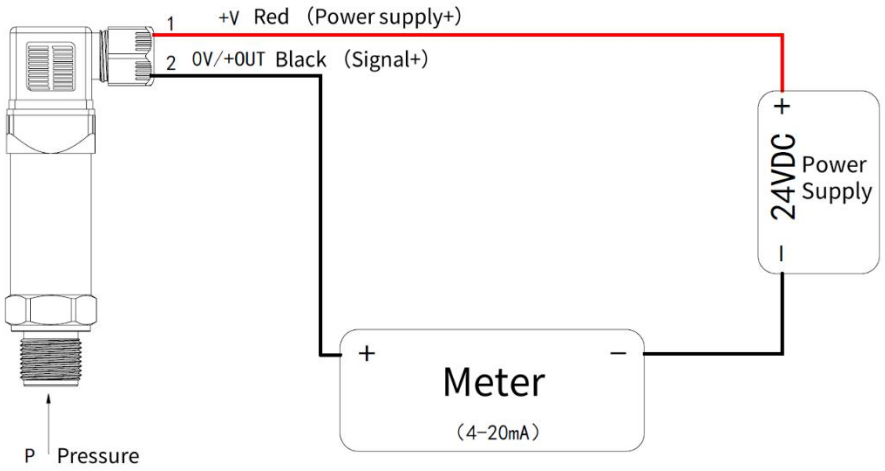
2-wire 4~20mA current output		
Signal Definition	Power Supply+(+V)	Power Supply-(0V/+OUT)
DIN43650/ Hirschmann	1	2
Cable outlet	red	black
M12×1	1	2
M12×1 with cable	brown	black

3-wire 0~5V/10V voltage output			
Signal Definition	Power Supply+(+V)	Power Supply-(GND)	Signal+(+OUT)
DIN43650/ Hirschmann	1	2	3
Cable outlet	red	black	blue
M12×1	1	2	3
M12×1 with cable	brown	black	blue

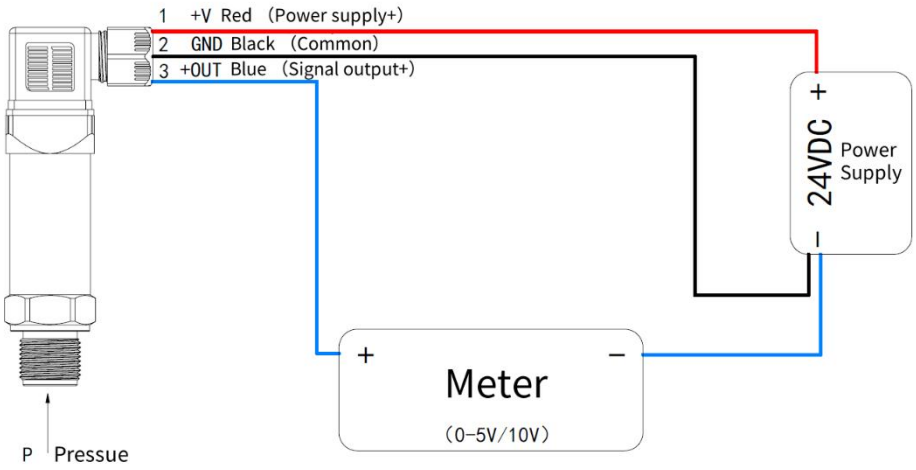
4-wire Modbus-RTU/RS485 output				
Signal Definition	Power Supply+ (+V)	Power Supply- (-V)	RS485A	RS485B
DIN43650/ Hirschmann	1	2	3	4
Cable outlet	red	black	yellow	green
M12×1	1	2	3	4
M12×1 with cable	brown	black	blue	white

Electrical Wiring Diagrams

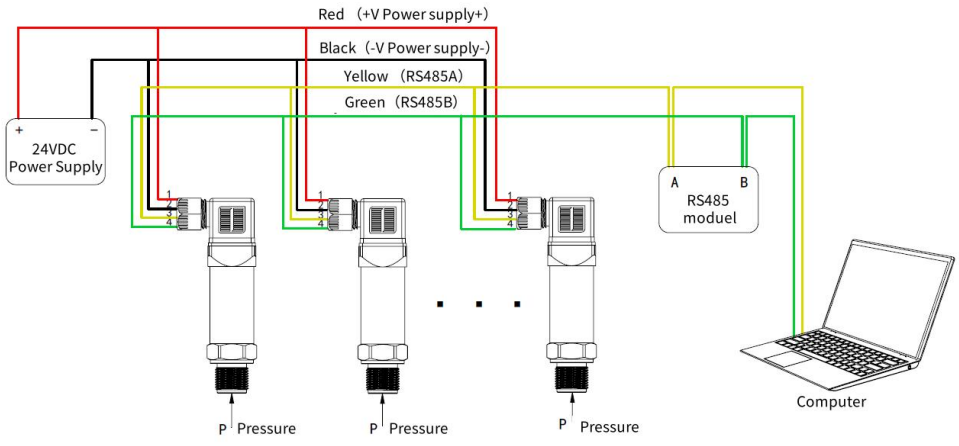
2-wire 4~20mA current output



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



4-wire Modbus-RTU/RS485 output



Ordering Code

Item NO.	Type					
HPM730	Hard Flush Diaphragm Pressure Transmitter					
	Pressure Range	Measuring Range				
	(0 ~ X)MPa	X is upper range limit				
		Code	Output Signal			
		B1	(4 ~ 20)mA			
		B3	(0 ~ 10)V			
		B15	(1 ~ 10)V			
		B7	RS485			
		B8	HART			
			Code	Thread Spec		
			KP1	M20×1.5		
			KG14	G1/4		
			KG12	G1/2		
				Code	Electrical Connection	
				C1	DIN43650	
				C2	Cable Outlet	
				C5	M12*1	
				C5X	M12*1 with cable	
					Code	Additional Functions
					QF	Factory report
						Other requests
eg:HPM730	(0 ~ 1)MPa	B1	KP1	C1		