Universal Pressure Transmitter

P048

| Features |

- 316L stainless steel diaphragm structure；High precision, all stainless steel structure
- Small size and lightweight；Strong anti-interference, good long-term stability
- Diversified formal structures, easy installation and use
- Wide measuring range, can measure absolute pressure, relative pressure
- Excellent vibration and shock resistance
- Zero, full-scale span adjustable

| Introduction |

P048 economic pressure transmitter adopts a diffused silicon pressure sensor as a pressure sensing element. Through internal ASIC, the millivolt signal of the sensor is transmitted into a standard current signal. P048 can be directly connected with a computer interface card, control instruments, intelligent meters or PLC. Long-distance transmission can use current output. P048 features with small size, lightweight, all stainless steel sealing structure and ability to work in corrosive environments. The product is easy to install and has an extremely high vibration and shock resistance.

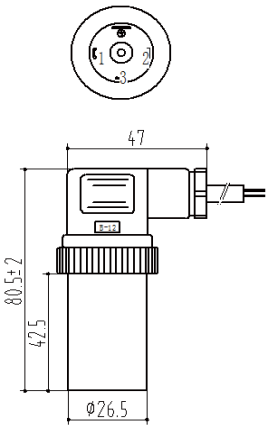
Applications:

Aviation and aerospace / Automotive / Medical equipment / Piping system / HVAC / Process control

| Specification |

Measuring range	-1 ... 0 ... 0.1 ... 1000 bar
Pressure type	Relative pressure / Absolute pressure
Output	4 ... 20 mA / 0 ... 5 V / 0 ... 10 V / 0.5 ... 4.5 V R/M(DC 5 V)
Accuracy	0.5%F.S.;2%F.S.(-0.05 ... 0.05 bar)
Hysteresis & repeatability	0.1%F.S.
Temperature drift	1.5%F.S.(at -20°C ... 85°C)
Response time	≤1 ms(up to 90%F.S.)
Service life	≥10x10^6 pressure cycles
Environment temperature	-20°C ... 85°C
Medium temperature	30°C ... 105°C
Storage temperature	-40°C ... 125°C
EMC-interference	IEC 61000-6-3
EMC-immunity	IEC 61000-6-2
Insulation resistance	≥100 MΩ / DC 500 V(200 MΩ / DC 250 V)
Mechanical vibration	Sine curve:20 g, 25 Hz ... 2 kHz;IEC 60068-2-6
	Random:7.5 grms, 5 Hz ... 1k Hz;IEC 60068-2-64
Impact resistance	Shock:200 g/1 ms, IEC 60068-2-27;Free fall:1m, IEC 60068-2-32
IP rating	IP65
Medium compatibility	All the medium compatible with 316L
Weight	150 ... 180 g
Size of hexagon	HEX27
O-ring	Viton
Material	S.S.304(Housing) / S.S.316L(Diaphragm)

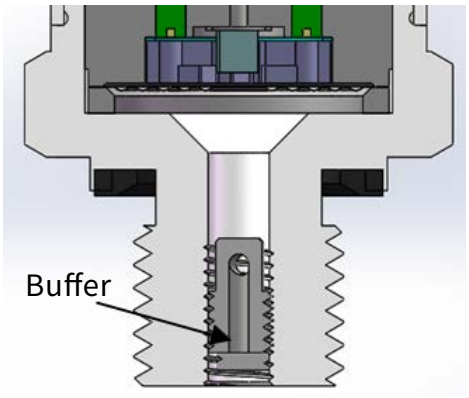
| Electrical Connection & Connection Method |

Connector	Dimension in mm	Connection mode Current(2-wire)	Connection mode Voltage(3-wire)
DIN 43650		Pin 1:Supply+ Pin 2:Current output	Pin 1:Supply+ Pin 2:Ground Pin 3:Voltage output

| Buffer Selection |

Application

Cavitation, liquid hammer and pressure peak may occur in air or hydraulic systems with varying flow rates, such as the rapid closing of the valve or the start and stop of the pump. Even at relatively low operating pressures, these problems may occur at the entrance and exit.

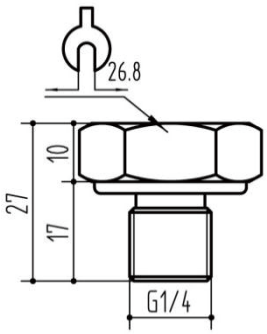
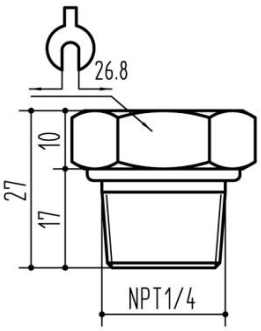
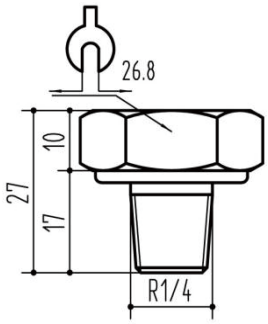


Medium condition

In the liquid containing particles, nozzle clogging may occur. The vertical mounting of pressure transmitter minimizes the risk of clogging because the flow of fluid happens in initial start only, the volume of the rear of the nozzle is fixed and the nozzle has a relatively large aperture (1.2 mm).

The effect of medium viscosity on response time is small. Even if the viscosity reaches 100 CST, the response time will not exceed 4 ms.

| Connecting Thread |

	G 1/4”	NPT 1/4”	R 1/4”
Dimension in mm		Material 	

| Measuring Range Selection |

Pressure range	Overpressure	Burst pressure
0 ... 0.7 bar	150% F.S.	500% F.S.(Note)
＞0.7 bar ... ≦400 bar	150% F.S.	300% F.S.
＞600 bar ... ≦1000 bar	120% F.S.	150% F.S.

Note：When selecting pressure sensor not filled with oil, the measuring medium must be pure gas.

| Buffer |

Model	Picture	Description
Buffer		Refer to “Buffer Selection”

| Ordering Guide |

P048 -

Pressure Type

0

0：Absolute pressure
1：Relative pressure

Pressure Range

21

00：-1 ... 0 bar
01：0 ... 0.1 bar
03：0 ... 0.3 bar
06：0 ... 0.6 bar
11：0 ... 1 bar
12：0 ... 1.6 bar
13：0 ... 2.5 bar
14：0 ... 4.0 bar
16：0 ... 6.0 bar
21：0 ... 10 bar
22：0 ... 16 bar
23：0 ... 25 bar
24：0 ... 40 bar
25：0 ... 60 bar
26：0 ... 100 bar
27：0 ... 160 bar
28：0 ... 250 bar
29：0 ... 400 bar
30：0 ... 600 bar
31：0 ... 1000 bar

Output

1

1：4 ... 20 mA
6：0 ... 10 V
7：0 ... 5 V
8：0.5 ... 4.5 V

Connect Thread

3

1：G1/4”
2：NPT1/4”
3：R1/4”

Connector

1

1：DIN 43650
2: Outdoor

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Option

W

W：Others

| Additional Option (ILAC / TAF) Test Report |

Additional option：(ILAC / TAF)Test report - Standard calibration laboratory(TAF accreditation：3032, complying with ISO / IEC 17025)
TAF has mutual recognition arrangement with ILAC MRA

Project	Measurand level or range
Pressure gauge	Gauge pressure：10 ... 7000 kPa(5 basic points or 3 basic points)
	Absolute pressure：20 ...170 kPa(5 basic points or 3 basic points)