## **PS10 Diffused Silicon Pressure Transmitter**

PS10MA pressure transmitter is a high stable pressure transmitter by using specific ASIC signal conditioning chip and high performance SS316L diaphragm diffused silicon pressure sensor. The internal specific ASIC integrated circuit transforms milivolt signal to standard voltage, current or frequancy signal. It can easily connect with PC interface card, controlling instruments, smart gauges or PLC. It is compact designed, light and stainless steel sealing structure, which enable it capability of working in corrosive environment.



# **Application**

PS10 is solution for below applications:

- Pressure measurement of gas, vapor or liquid in various areas;
- ·Liquid level, volume or mass measurement;
- Integrated in a variety of user-defined solutions;
- •Smart water and gas management system, smart fire controlling, automotive electronics controlling, air compressor, HVAC, pump, valve and etc;

#### **Features**

- Specific high performance ASIC conditioning circuit;
- •Diffused silicon pressure sensor;
- Stainless steel, aluminium and copper housing;
- •0...10V analog output;
- Fast respond, no hysteresis;
- Various process thread or other customization port acceptable;
- Accurate, stable and reliable

www.minalox.sk

1



# **Specifications**

### **Performance**

Input				
Pressure type	Gauge pressure, sealing pressure, absolute pressure			
Measuring range	-0.1~60MPa			
Output				
Analog	0.54.5V, 420mA, 15V, 010V			
Analog	I <sup>2</sup> C, SPI			
Accuracy				
0.2%	Linearity, hysteresis, repetitiveness: <0.2% sensor full range			
0.5%	Linearity, hysteresis, repetitiveness: <0.5% sensor full range			
Overload				
2.5X pressure sensor full scale				
Housing Info.				
Housing Material	SS 304, Cu, Al			
Wetting Material	SS316L			
Ingress Protection	IP67			

## **Power Supply**

Supply voltage	5V \24VDCregulated power supply,			
Supply voltage	5V supply voltage effect: min.3V/max.5.5V			
effect	● For 0.54.5V output sensor, voltage has no effect for linearity and temperature compensatio			
	voltage is proportional to LRV and FRV.			
	● For I <sup>2</sup> C and SPI digital output sensor, voltage has no effect for linearity, LRV, URV and compensation			
	temperature.			
	24V supply power effect: min.9V/max30V			
	● For 420mA current output sensor, voltage has no effect for linearity, LRV, URV and compensation			
temperature.				

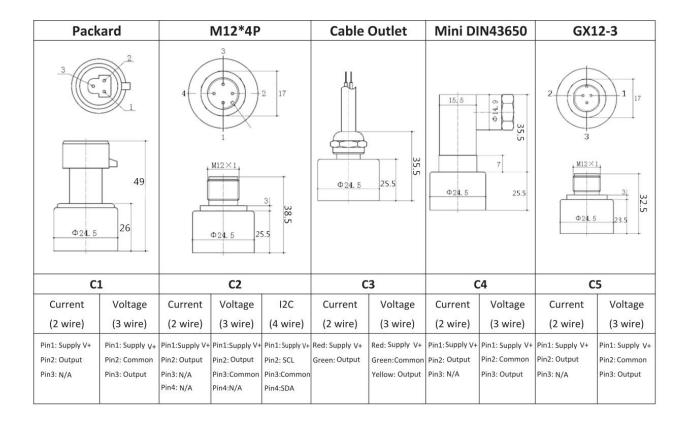
# **Operating condition: Temperature**

Environment	-40 to 85℃
Storage	-45 to 85℃

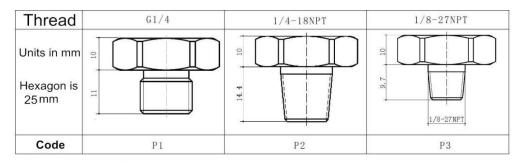
www.minalox.sk 2

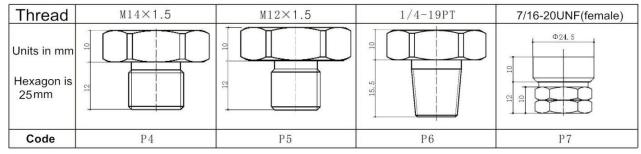


## **Electrical connection**



#### **Process connection**





3



# **Ordering Info**

Model	Product description					
MNLXPS10	Pressure Transmitter					
CODE	Pressure Type					
А	Absolute Pressure					
G	Gauge pressure					
S	Sealing pressure					
CODE	Accuracy	Accuracy				
2	0.2%FS					
5	0.5%FS					
CODE	Sensor range					
А	0.1bar	E	10 bar			
В	0.5 bar	F	50 bar			
С	1 bar	G	100 bar			
D	5bar	Н	600 bar			
Other ranges are in developing						
CODE	Output					
1	0.54.5V DC					
2	420mA					
3	I <sup>2</sup> C					
4	SPI					
5	010V DC					
6	15V DC					
X	Customization					
CODE	Electrical connector					
C1	Packard					
C2	M12					
С3	Cable outlet (pls put down cable length, such as 01 for 1 meters)					
C4	Mini DIN43650					
C5	GX12-3					
CX	Customization					
CODE	Process connector					
P1	G1/4	P5	M12×1.5			
P2	1/4-18NPT	P6	1/4-19PT			
Р3	1/8-27NPT	P7	7/16-20UF(female)			
P4	M14×1.5	PX	Customization			
Pls contact MINALOX for other process connectors						
Typical ordering code: MNLXPS10 GC2 C1 P1						
MNLXPS10 GC2 C310 P1C3 direct cable outlet length is 1 meter.						

www.minalox.sk