

# PRODUCT OVERVIEW

# PRESSURE MEASUREMENT

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## P10 Series OEM Compact Pressure Sensors



P10R



P10C



P10U



### Characters:

- ☆ Accuracy:  $\pm 1.0\%$ F.S.
- ☆ Wide working temperature scope
- ☆ Automation temperature compensation.
- ☆ Excellent overload, Shock and erosion.
- ☆ Anticorrosive diaphragm and port.
- ☆ OEM economic selection
- ☆ Mini dimension types
- ☆ 2 times range standard overload.
- ☆ 3 times range burst pressure
- ☆ CE approved

### Applications:

- ★ Engine Fuel Pressure measurement
- ★ Refrigeration and Air Compressor
- ★ Hydraulic pressure controller
- ★ Petrochemical industry
- ★ HAVC System Application
- ★ Pressure meter
- ★ Laboratory equipment
- ★ Water pressure measurement
- ★ Saving water to irrigate
- ★ Liquid and Gas pressure measurement

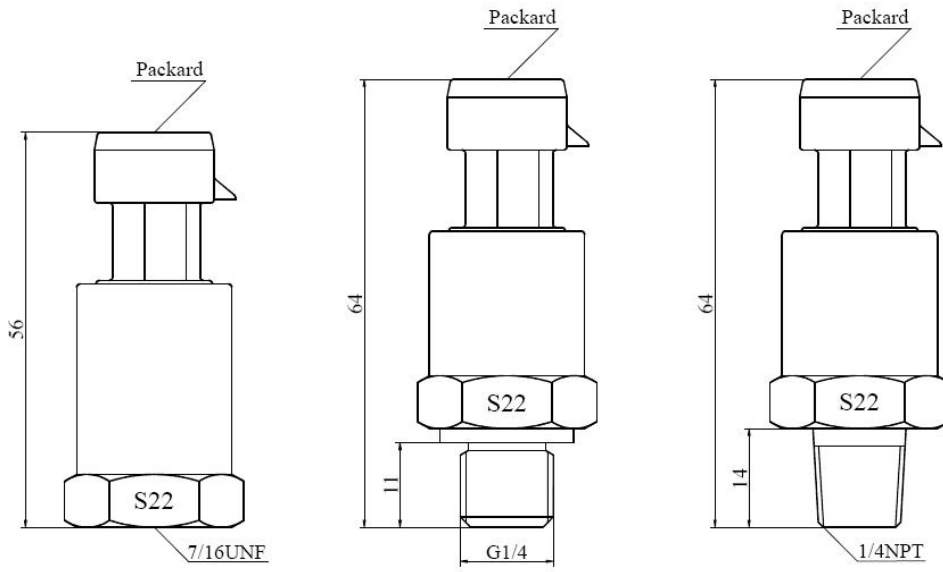
### I . Profiles:

The P10 series pressure Sensors are applied in the refrigeration, compressor, engine fuel pressure, hydraulic pressure and gas pressure industries fields, which is adopt the Germany Ceramic piezoresistive technology and the advanced circuit design to avoid influences on the product caused by the temperature, humidity, mechanical fatigue and medium, thus to improve its permanent stability in the industrial environment. Its pressure chamber is made of ceramic and with high quality Japan CR or Teflon O-rings, free of leakage troubles. Digital circuits capable of strong RFI & EMI resistance and automatic temperature compensation are installed inside the transmitter and the transmitter is featured with the strong interference resistance, wide temperature compensation scope and flexible & various output forms, etc. The series products provide several optional pressure connectors and electric output forms for customers.

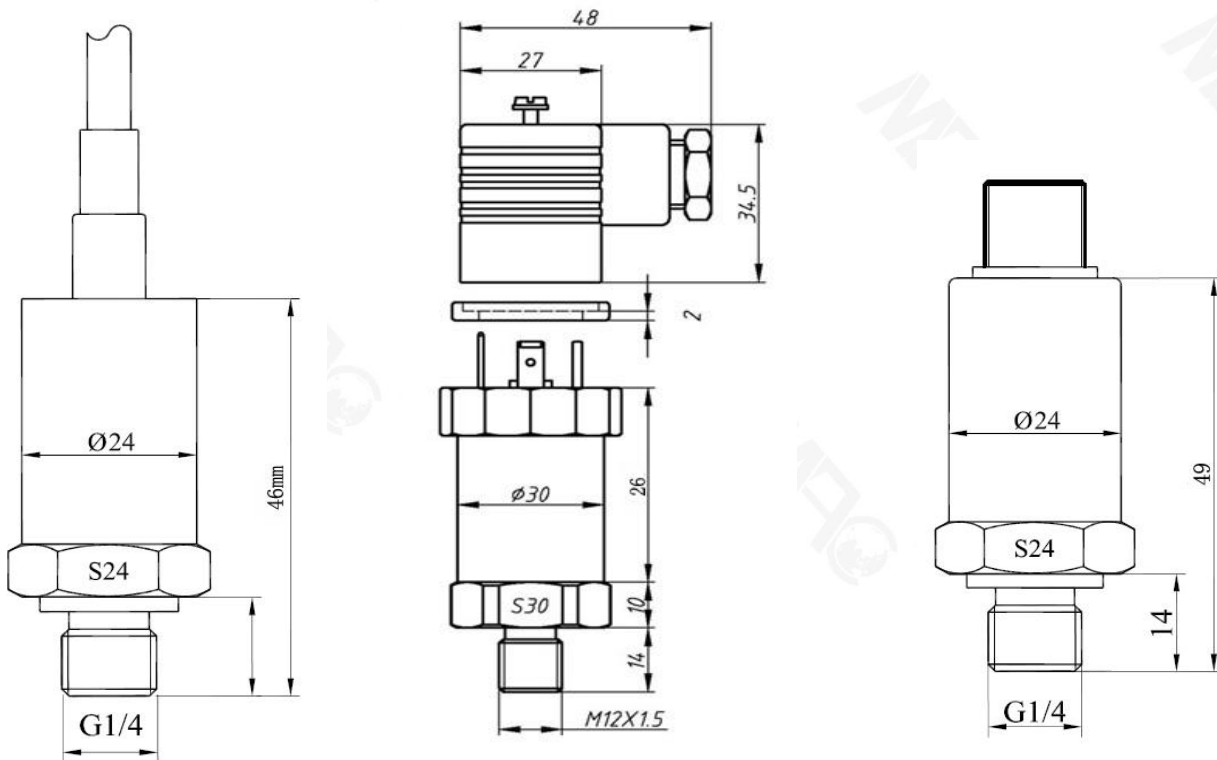
## II . Specifications:

Model:	P10 Series				
Parameter:					
Pressure Range:	-1-0-1 Bar....600 Bar Optional				
Pressure Type:	Gauge pressure; Negative pressure; Absolute pressure optional				
Overload:	150% F.S.				
Burst Pressure	200% F.S.				
Accuracy: (Linearity Hysteresis Repeatability)	$\leq \pm 1.0\%F.S$ (Standard) $\leq \pm 0.5\%F.S$ (Customized) Optional.				
Stability:	Standard: $0.2\%F.S \pm 0.05\%$				
Medium Temp:	-30°C~85°C				
Ambient Temp:	-30°C~80°C				
Storage Temp:	-40°C~85°C				
Temperature Compensation:	0°C~50°C				
Zero temp drift:	$\leq 0.02\%F.S/^\circ C/year$				
Housing material:	304 Stainless Steel				
Diaphragm material:	Ceramic				
Process material:	SUS304 Stainless Steel or by customized				
Medium compatible:	Compatible with 304/316 Stainless Steel				
Electronic Wire:	2 or 3 wires	3 Wires			
Output:	4~20mA	0~5V/1~5V	0~10 V	0.5~4.5 V Ratiometric	Special customized
Power Supply:	12~36 V DC	8~36 V DC	15~36Vdc	5 V DC	Special customized
Insulate resistance:	$>100M \Omega @50V$				
Electronic connection:	Terminal Box (DIN43650 Hirschman Connector, IP65); Directly sealed cable IP67; M12 4 Pins connector IP65; Packard 3 Pins Connector IP67 are optional.				
Pressure connect port:	1/8"NPT male, 1/4"NPT male 1/4"NPT Female, G1/2" male, G1/4"male/female, 7/16"-20 UNF male/female are optional. (by Customized)				
Response time:	$\leq 20ms$				
Certificate approving:	CE Certificate.				
EMC Standard:	EN 61326-1:2013; EN 61326-2-3:2013 EN 61000-6-2:2005; EN61000-6-4:2007+A1				
Water Proof:	IP65 to IP67				
Weight:	Net weight is about 0.10KG, Full Packing weight is about 0.5KG (Included 3 Meters Cable)				
Remarks:	Special applications request by Customized				

III. Dimension and Drawing:



P10R&P10C Dimension Drawing



P10U Dimension Drawing

#### IV. Electronic Connections:

Electronic Wire Connections					
	Power Supply Vcc+	Power Supply V-/0V	Signal Output S+	Signal Output S-/0V	Ground Wire
<b>2 wire</b> 4-20 mA	Red wire	NA	Blue wire & Green wire	NA	Yellow wire
<b>3 Wire</b> 0-5V; 0-10V; 0.5-4.5V	Red wire	Black wire	Blue wire & Green wire	White/Yellow wire	Yellow wire
<b>Hirschman Connector Type</b>	Pins 1 Red wire	Pins 3 Black wire	Pins 2 Signal wire	Pins 3 Black wire	Pins G ground wire
<b>M12 Connector</b> 4 Pins Type	Pins 1 Brown wire	Pins 3 0V/Blue wire	Pins 2 White wire	Pins 3 0V/Blue wire	Pins 4 Black wire
<b>Packard 3 Pins Connector Type</b>	Pins B Red wire	Pins A Black wire	Pins C Blue/Green wire	Pins A Black wire	NA

#### V. Part Number Code Table For Pressure Range:

000	-1-0	016	0-1.5	031	0-10	047	0-125
001	-1-1	017	0-1.6	032	0-12	048	0-150
002	-1-9	018	0-1.7	033	0-15	049	0-200
003	-1-10	019	0-1.8	034	0-16	050	0-250
004	-1-16	020	0-1.9	035	0-20	051	0-300
005	-1-20	021	0-2.0	036	0-25	052	0-350
006	-1-25	016	0-2.1	037	0-30	053	0-400
007	-1-30	022	0-2.2	038	0-35	054	0-450
008	-1-35	023	0-2.3	039	0-40	055	0-500
009	-1-40	024	0-2.5	040	0-50	056	0-600
010	-1-65	025	0-3	041	0-60	057	0-700
011	0-0.5	026	0-4	042	0-65	058	0-800
012	0-1.0	027	0-5	043	0-70	059	0-1000
013	0-1.1	028	0-6	044	0-80	060	0-10000
014	0-1.2	029	0-7	045	0-90	061	0-15000
015	0-1.3	030	0-8	046	0-100	X	Customized

## VI.Order Information

<b>P/N</b> <b>Selection</b>	<b>P10</b> (Model)	<b>3</b>	<b>E</b>	<b>00500</b>	<b>150P</b>	<b>0</b>	<b>1</b>	<b>G</b>
<b>Output</b>	3= 4-20mA 4= 0.5-4.5V Ratiometric 5= 0-5V 6= 1-5V 7= 0-10V 8= 0.5-4.5V							
<b>Process connection</b>	A= G1/4"      B= G1/4" Female D =G1/2"      E =G1/2" Female G=1/4"NPT      H=1/4" NPT Female 5= M20*1.5      6= M10*1.0 7= 1/8"NPT      K=7/16-20UNF male M=7/16-20UNF Female with thimble							
<b>Pressure Measurement</b>	See last pages Pressure Range Code Table and select your requested range code adhere here.							
<b>Pressure Unit</b>	B=Bar      P=PSI      K=kPa      M=MPA      H=mH2O							
<b>Accuracy</b>	0=4%F.S.      1=1.5%F.S.      2=1%F.S.      3=0.5%F.S.							
<b>Electronic Connection</b>	1= Cable 1M      E= Cable 2M      2= Cable 3M 3= Cable 5M      4= M12 4Pins      5= Packard 3 Pins 7= Hirschman DIN43650      8= Smaller Hirschman							
<b>Pressure type</b>	G=Gage    S=Sealed    A=Absolute							

### Stock Parts

P103A-0010B-03