

LOW COST, COMPACT

LOCAL INDICATING PRESSURE TRANSMITTER

FEATURES

- Front attached display
- Cost effective
- High corrosion resistant
- Compact design
- High accurate, durable & reliable
- Wide Measuring Ranges
- LED 3-digits Local display

APPLICATIONS

- A wide range of application in ;**
- Standard hydraulic & pneumatic equipments
- Process control
- Machine tools & automatic machinery
- Servo valves & drives
- Chemical & petrochemical industries
- Air & gas compressors



GENERAL DESCRIPTION

KP-10 series Compact digital pressure transmitter has been designed as an advanced device for measuring pressure of gases and liquids in industrial applications. It is extremely versatile and suitable for measuring static pressure. A compact design and 3 digit LED local display make it easy to control process and monitor the process value at site. The built-in ceramic measuring cell is highly corrosion resistant, stable and has an excellent price / performance ratio. Thanks to their high natural frequency and the rugged construction, the transmitters withstand high shock & vibration.

They are available as absolute and relative pressure types with either 2-wire current or 3-wire voltage output. The pressure to be measured acts without transmitting liquid fill on a stable, corrosion resistant ceramic measuring cell. Piezoresistive resistors are attached to the cell and connected in a Wheatstone bridge configuration. The output signal of the bridge is converted into a standardized current or voltage signal.

TECHINCAL DATA

Input

Measuring Principle	Piezoresistive Ceramic Cell (KP-21: Piezoresistive Silicon Pressure Cell)
Pressure Reference	Gauge, Absolute, Vacuum & Compound
Measuring Ranges(bar)	Gauge : 0~0.5, 1, 2, 3, 4, 5, 8, 10, 15, 20, 25, 35, 50, 100, 200, 350 Absolute : 0~1, 2, 5, 10, 20, 50, 100, 200, 350, 400 Vacuum : -1~0 Compound : -1~1, 2, 3, 5, 10, 20, 35, 50, 100, 200, 350 Note : Other ranges are available on request
Over Pressure Limit	1.5 × Full scale without damage

Output

Output Signal	4~20mA DC, 2-wire 1~5, 0~10V DC, 3-wire(Optional)
Local Display	3 Digits, 7-segment digital LED

Electrical Specification

Electrical Connection	KP-11(21) : 4-pin L-plug, DIN 43 650, IP65 KP-12(22) : Flying lead with PG 9 connector
Excitation Voltage	10~36V DC
Load Resistance max.@24V	750 ohm at 24V
Influence Of Excitation	0.01% FSO/V
Reverse Polarity	Protected
Response Time	≤2 milliseconds(KP-21: ≤1.5 milliseconds)
Adjustment	Within 10% of full scale

Performance Specification

Accuracy	±0.5% FSO(KP-21: ±0.2% FSO)
Non-linearity	±0.20% FSO typical(KP-21: ±0.10% FSO typical)
Repeatability	±0.20% FSO typical(KP-21: ±0.015% FSO typical)
Pressure Hysteresis	±0.050% FSO typical(KP-21: ±0.010% FSO typical)
Long-term Stability	±0.3% FSO over 6 months
Operation Temperature Range	-40~125℃
Compensated Temperature Range	0~70℃(KP-21: 0~82)

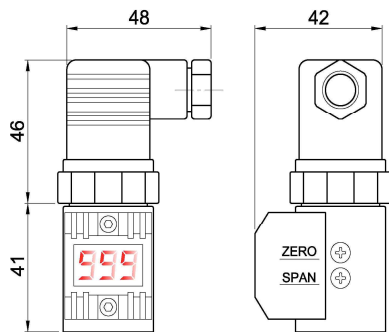
Physical Specification

Process Connection	Thread Type : PT, NPT, PF Thread Size : 1/4", 3/8", 1/2" Other connections available such as JIS, ANSI, DIN Flange
Process Media	Gases & liquids compatible with Stainless steel 316 & Ceramic Al2 O3, 96%
Materials	Case : Stainless steel 316 Wetted parts : Stainless steel 316 Diaphragm : Ceramic Al2 O3, 96% Display cover : Polycarbonite
Enclosure Rate	IP65, 67

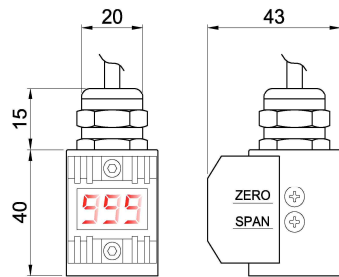
DIMENSION

Terminal Head

KP-11(21)

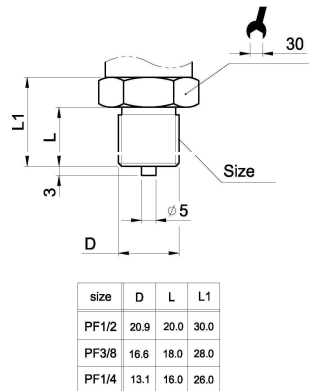


KP-12(22)

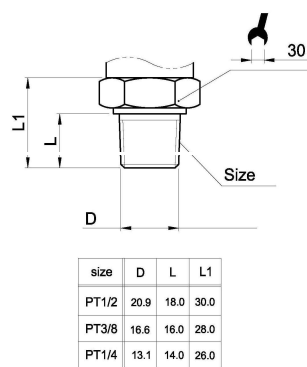


Wetted Parts

PF Connection

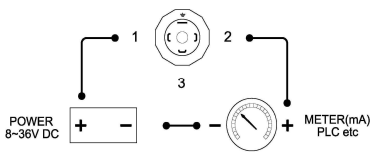


PT Connection

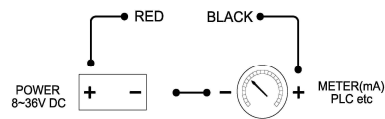


Electrical Connection

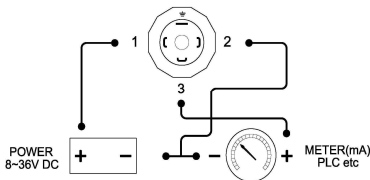
KP-11(21) - (2-wire system)



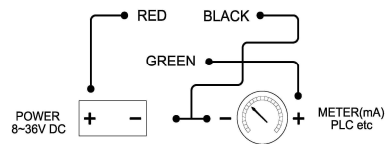
KP-12(22)- (2-wire system)



KP-11(21) - (3-wire system)



KP-12(22)- (3-wire system)



ORDERING INFORMATION

			Order Code
Model	KP-11 : 4-pin L-plug, DIN 43 650, IP65	KP-11,12/21,22	
	KP-12 : Flying lead, 1.5m, IP67		
Pressure reference	R : Gauge pressure	R	
	A : Absolute pressure		
	V : Vacuum		
	C : Compound pressure		
Process connection type	A : NPT	B	
	B : PT		
	C : PF		
	X : Others available on request		
Process connection size	1 : 1/4"	3	
	2 : 3/8"		
	3 : 1/2"		
	X : others on request		
Measuring range	110 : -1~0	126 : -1~1	117
	111 : 0~1	127 : -1~2	
	112 : 0~2	128 : -1~5	
	113 : 0~5	129 : -1~10	
	114 : 0~10	130 : -1~15	
	115 : 0~15	131 : -1~20	
	116 : 0~20	132 : -1~25	
	117 : 0~25	133 : -1~35	
	118 : 0~35	134 : -1~50	
	119 : 0~50	135 : -1~100	
	120 : 0~100	136 : -1~250	
	121 : 0~250	137 : -1~350	
	122 : 0~350		
	123 : 0~400		
Unit	A : kgf/cm ² or mmHg+kgf/cm ²	A	
	B : mmHg		
	C : bar		
	D : psi		
	E : Mpa		
	F : Kpa		
	X : Other calibration unit available on request		
Output signal	0 : None-output(Only digital gauge)	1	
	1 : 4~20mA DC, 2-wire		
	2 : 1~5V DC, 3-wire(Optional)		
Option	1 : None	1	
	x : Sealed diaphragm, Refer to data sheet No.0416		

Note 1) Other ranges are available on request.
2) Please mark "abs." for absolute pressure.

Specifications subject to change without notice.



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