

Model : KP-10(KP-20)

LOW COST INDICATING PRESSURE TRANSMITTER

FEATURES

- Compact field case
- Programmable digital pressure transmitter
- Variable functions
- Range turn-down
- High performance & cost effective
- Extremely corrosion resistant
- Wide Measuring Ranges
- LED 4-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 Microprocessor based 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 field case and 4 digit LED local display make it easy to control process and adjust the value for measuring range, damping, zero & span. 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, KP-10 withstands 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

TECHINCAL DATA

Input

Measuring Principle
Pressure Reference
Measuring Ranges(bar)

Ceramic Pressure Cell (KP-20: Piezoresistive Pressure Cell)
Gauge, Absolute, Vacuum & Compound
Gauge : 0~1, 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, 400
Note : Other ranges are available on request
1.5 × Full scale without damage

Over Pressure Limit

Output

Output Signal

4~20mA DC, 2-wire
1~5V DC, 3-wire(Optional)
4 Digits, 7-segment digital LED

Local Display

Electrical Specification

Electrical Connection
Conduit Connection
Excitation Voltage
Load Resistance max.@24V
Influence Of Excitation
Reverse Polarity
Response Time
Adjustment

Weather-proofed field case
1/2"PF,Female
10~36V DC
750 ohm at 24V
0.01% FSO/V
Protected
≤1.5 miliseconds
3 : 1 Range turn-down

Performance Specification

Accuracy
Non-linearity
Repeatability
Pressure Hysteresis
Long-term Stability
Operation Temperature Range
Compensated Temperature Range

±0.5% FSO (KP-20: ±0.25% FSO)
±0.20% FSO typical (KP-20: ±0.10% FSO typical)
±0.20% FSO typical (KP-20: ±0.015% FSO typical)
±0.050% FSO typical (KP-20: ±0.01% FSO typical)
±0.3% FSO over 6 months
-40~125°C
0~70°C (KP-20: 0~82°C)

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

Field case : ALDC
Wetted parts : Stainless steel 316

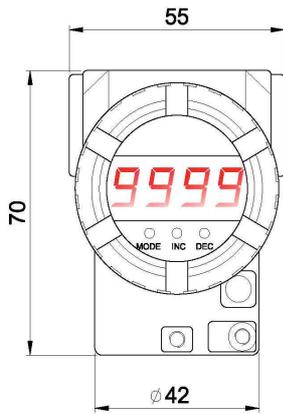
Enclosure Rate

Diaphragm : Ceramic Al2 O3, 96% (KP-20: Stainless steel 316L)
IP65

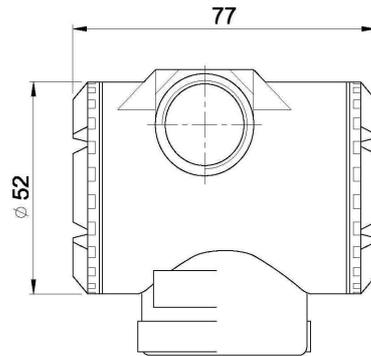
DIMENSION

Terminal Head

Front View

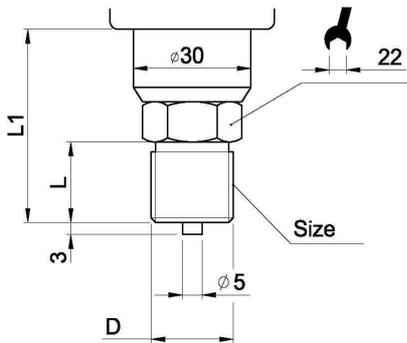


Side View



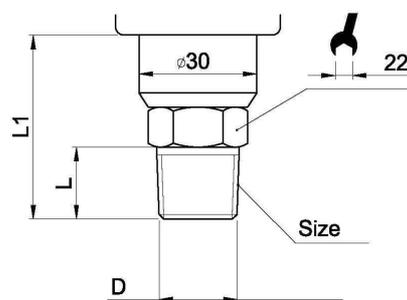
Wetted Parts

PF Connection



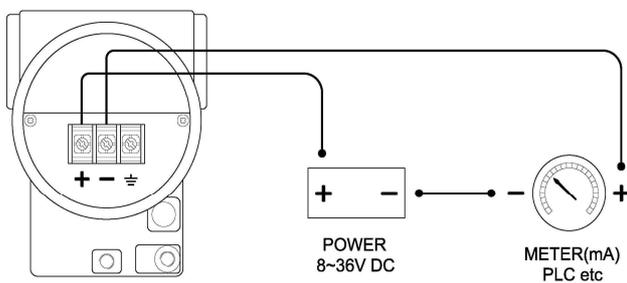
size	D	L	L1
PF1/2	20.9	20.0	48.0
PF3/8	16.6	18.0	46.0
PF1/4	13.1	16.0	44.0

PT Connection



size	D	L	L1
PT1/2	20.9	18.0	46.0
PT3/8	16.6	16.0	44.0
PT1/4	13.1	14.0	42.0

Electrical Connection



ORDERING INFORMATION

Order Code

KP-10/20

Model			
Pressure reference	R : Gauge pressure		<input type="text" value="R"/>
	A : Absolute pressure		
	V : Vacuum		
	C : Compound pressure		
Process connection type	A : NPT		<input type="text" value="B"/>
	B : PT		
	C : PF		
	X : Others available on request		
Process connection size	1 : 1/4"		<input type="text" value="3"/>
	2 : 3/8"		
	3 : 1/2"		
	X : others on request		
Measuring range	113 : -1~0	126 : -1~1	<input type="text" value="117"/>
	114 : 0~1	127 : -1~2	
	115 : 0~2	128 : -1~5	
	116 : 0~5	129 : -1~10	
	117 : 0~10	130 : -1~15	
	118 : 0~15	131 : -1~20	
	119 : 0~20	132 : -1~25	
	120 : 0~25	133 : -1~35	
	121 : 0~35	134 : -1~50	
	122 : 0~50	135 : -1~100	
	123 : 0~100	136 : -1~250	
	124 : 0~250	137 : -1~350	
	125 : 0~350		
Unit	A : kgf/cm ² or mmHg+kgf/cm ²		<input type="text" value="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)		<input type="text" value="1"/>
	1 : 4~20mA DC, 2-wire		
	2 : 1~5V DC, 3-wire(Optional)		
Option	1 : None		<input type="text" value="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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