

DUAL DISPLAY, PROGRAMMABLE, DIGITAL PRESSURE SWITCH & TRANSMITTER

FEATURES

- Adjustable 2 switch points
- LED 4-digit & bar-graph display
- Programmable pressure switch & transmitter
- Damping adjustable
- Zero & span adjustable
- 10 : 1 range turn-down
- Explosion protected Ex d IIB T6
- Easy operation by front keys

APPLICATIONS

A wide range of application in ;

- Chemical & petrochemical process
- Food & drug process controls
- Hydraulic & pneumatic equipments
- Machines tools & automatic machinery
- LPG & LNG transmission & storage controls
- Engine monitoring & control
- Pump & motor controls



GENERAL DESCRIPTION

KP-30 Series microprocessor based digital pressure switch combined analog output signal is ideal for the applications that require high accurate process control and monitoring. KP-30 with its built-in piezoresistive silicon pressure cell, 4 digit digital LED & bar-graph display, 2 switching points, 4~20mA analog output signal and a front function keys, offers the user all the advantages of a modern electronic pressure measurement. External adjustments allow the user to set the pressure ranges, switch points, damping, zero & span calibration, etc.

The pressure to be measured acts through thin corrosion resistant stainless steel 316L diaphragm on a piezoresistive silicon measuring element. The transmitting medium of pressure is oil. The measuring element contains diffused piezoresistive resistors which are connected into a Wheatstone bridge. The output signal of

TECHINICAL DATA

Input

Measuring Principle	Piezoresistive Silicon Sensor
Pressure Reference	Gauge, Absolute, Vacuum & Compound
Measuring Ranges(bar)	Gauge : 0~0.1, 0.2, 0.5, 1, 2, 3, 4, 6, 10, 15, 20, 25, 35, 50, 100, 200, 350 Absolute : 0~1, 2, 5, 10, 20, 50, 100, 200, 350 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	3.0 × Full scale without damage

Output

Output Signal	Digital gauge(Without output signal) 2 Relay points(High/Low) 4~20mA Analog output signal 4~20mA Analog output signal & 2 Relay points(High/Low)
Local Display	4 Digits, 7-segment digital LED LED Bar-graph(Red) 2 alarm lamps Unit for process value
Electrical Connection	Field case
Conduit Connection	1/2"PT, female

Electrical Specifications

Excitation Voltage	24V DC ±10% 85~260V AC Optional
Supply Current	Max. 0.15A
Signal Current Limited	Max. 23.0mA
Load Limitation	Max. 750ohm

Performance Specifications

Accuracy	±0.2% FSO ±0.5% FSO for sealed diaphragm
Non-linearity	±0.100% FSO typical
Repeatability	±0.015% FSO typical
Pressure Hysteresis	±0.010% FSO typical
Long Term Stability	±0.3% FSO over 6 months
Operating Temperature	-40~125 °C
Temperature Compensated	0~82 °C
Thermal Sensitivity Shift	±0.2% FSO typical
Thermal Zero Shift	±0.2% FSO typical

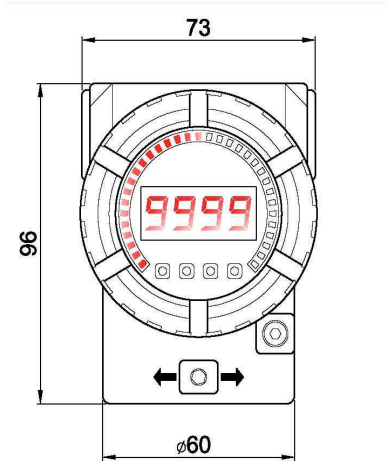
Physical Specifications

Process Connection	Thread Type : PT, NPT, PF Thread Size : 1/4", 3/8", 1/2", 3/4" Flange Type : JIS, ANSI, DIN(Flat or "I" flange)
Process Media	Gases & liquids compatible with stainless steel 316
Materials	Case : ALDC Diaphragm : Stainless steel 316L Wetted parts : Stainless steel 316 Note) Sealed diaphragm available on request

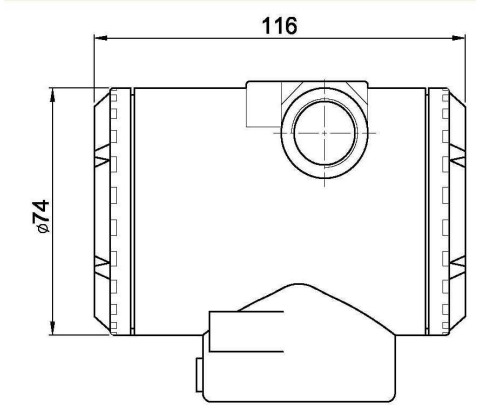
DIMENSION

Terminal Head

Front View

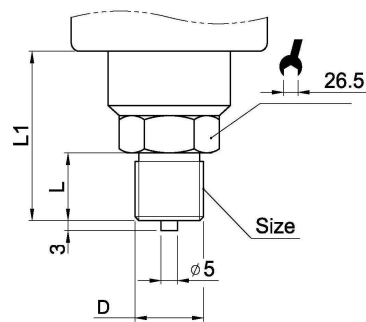


Side View



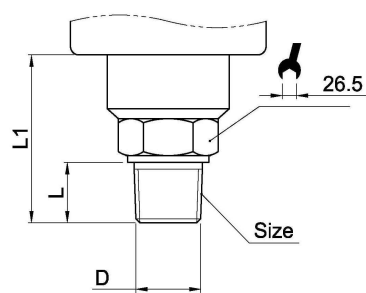
Wetted Parts

PF Connection



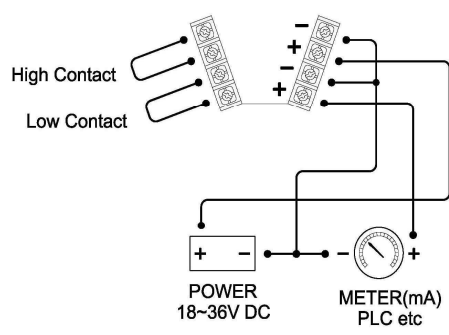
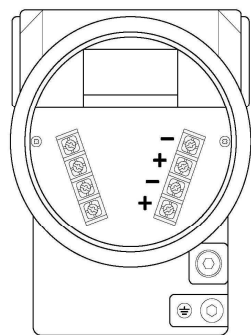
size	D	L	L1
PF1/2	20.9	20.0	50.0
PF3/8	16.6	18.0	48.0
PF1/4	13.1	16.0	46.0

PT Connection



size	D	L	L1
PT1/2	20.9	18.0	50.0
PT3/8	16.6	16.0	48.0
PT1/4	13.1	14.0	46.0

Electrical Connection



ORDERING INFORMATION

Model			Order Code
			KP-30
Pressure reference	R	: Gauge pressure	<div>R</div>
	A	: Absolute pressure	
	V	: Vacuum	
	C	: Compound pressure	
Process connection type	A	: NPT	<div>B</div>
	B	: PT	
	C	: PF	
	X	: Others available on request	
Process connection size	1	: 1/4"	<div>3</div>
	2	: 3/8"	
	3	: 1/2"	
	X	: others on request	
Measuring range	110	: -1~0	<div>117</div>
	124	: 0~250	
	111	: 0~0.1	
	125	: 0~350	
	112	: 0~0.2	
	126	: -1~1	
	113	: 0~0.5	
	127	: -1~2	
	114	: 0~1	
	128	: -1~5	
	115	: 0~2	
	129	: -1~10	
	116	: 0~5	
	130	: -1~15	
	117	: 0~10	
	131	: -1~20	
	118	: 0~15	
	132	: -1~25	
	119	: 0~20	
	133	: -1~35	
	120	: 0~25	
	134	: -1~50	
	121	: 0~35	
	135	: -1~100	
	122	: 0~50	
	136	: -1~250	
	123	: 0~100	
	137	: -1~350	
Unit	A	: kgf/cm ² or mmHg+kgf/cm ²	<div>A</div>
	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)	<div>1</div>
	1	: 4~20mA Analog output only	
	2	: 2 Relay points	
	3	: 4~20mA Analog output + 2 Relay points	
	x	: Other outputs available on request	
Option	1	: None	<div>1</div>
	x	: Sealed diaphragm, : 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.



성지테크(압력/온도/유량/레벨)

TEL: 02-6335-8006~7