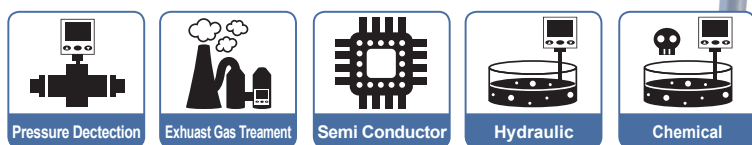


KP52 SERIES

Pneumatic · Hydraulic High Pressure Sensor (Multi-Medium)

Features

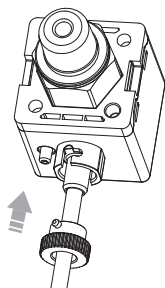
- Sensor parts & Fitting parts : Stainless steel 316L
- 2-color digital LCD display
- Copy function
- Programmable pressure unit : MPa · kgf / cm² · bar · psi
- IP65 enclosure



Features Highlight

1 Quick Installation

- Save installation time
- Easy removal



(Removable data cable)

2 Copy Setting

- Avoid setting errors
- Reduce setting time



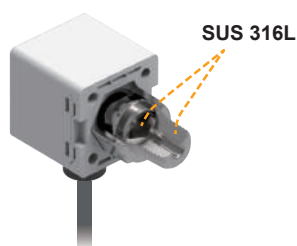
3 Easy Unit Identification

- Conversion unit is on display and easy to read



4 Applicable for Corrosive Fluid or Gas

- Sensor parts & Fitting parts are SUS 316L, applicable for corrosive fluid or gas equipment



5 2-Color Display

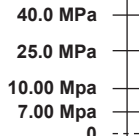
- User programmable color mode, for different setting conditions

	50.0	50.0	50.0	50.0
ON	Green	Red	Green	Red
OFF	Red	Green	Green	Red

6 IP65 Compliance



Specifications

MODEL		KP52H07	KP52H10	KP52H25	KP52H40
					
Rated Pressure Range		0 ~ 7.00 MPa	0 ~ 10.00 MPa	0 ~ 25.0 MPa	0 ~ 40.0 MPa
Set Pressure Range		0 ~ 7.00 MPa	0 ~ 10.00 MPa	0 ~ 25.0 MPa	0 ~ 40.0 MPa
Withstand Pressure		14 MPa	20 MPa	50 MPa	80 MPa
Fluid		Fluids do not corrode stainless steel 316L, fluororubber (FKM)			
Sealed Liquid		Silicon oil			
Set Pressure Resolution	MPa	0.01		0.1	
	kgf / cm²	0.1		1	
	bar	0.1		1	
	psi	1		1 *5	
Power Supply Voltage		12 to 24 V DC ±10 %, Ripple (P-P) 10 % or less			
Current Consumption		≤ 40 mA (With no load)			
Switch Output		2NPN : open collector 2 outputs Max. load current : 125 mA Max. supply voltage : 30 V DC Residual voltage : ≤ 1.5 V		2PNP : open collector 2 outputs Max. load current : 125 mA Max. supply voltage : 24 V DC Residual voltage : ≤ 1.5 V	
Repeatability (Switch Output)		±0.3 % F.S. ±1 digit			
Hysteresis	One Point Set Mode	Adjustable *1			
	Hysteresis Mode				
	Window Comparator Mode				
Response Time		≤ 2.5 ms (chattering-proof function : 25 ms, 100 ms, 250 ms, 500 ms, 1000 ms and 1500 ms selectable)			
Output Short Circuit Protection		Yes			
Display		3 ½ digital, 7 segment LCD display (Red / Green / Orange) (Sampling rate : 5 times / sec.)			
Indicator Accuracy		±2 % F.S. ±1 digit (ambient temperature : 25 ±3 °C)			
Switch on Indicator		Orange indicator 1 : OUT1 & Orange indicator 2 : OUT2			
Analog Output (Voltage Output) *2	Output Voltage	1 to 5 V ±2.5 % F.S. (within rated pressure range)			
	Output impedance	about 1 kΩ			
	Linearity	±1 % F.S.			
Analog Output (Current Output) *3	Output Current	4 to 20 mA ±2.5 % F.S. (within rated pressure range)			
	Max.Load impedance	250 Ω at power supply of 12 V , 600 Ω at power supply of 24 V			
	Min.Load impedance	50 Ω			
	Linearity	±1 % F.S.			
Environment	Enclosure	IP 65 *6			
	Ambient Temp. Range	Operation : 0 ~ 50 °C, Storage : -10 ~ 60 °C (No condensation or freezing)			
	Ambient Humidity Range	Operation / Storage : 35 ~ 85 % RH (No condensation)			
	Withstand Voltage	250 V AC in 1-min (between case and lead wire)			
	Insulation Resistance	50 MΩ (at 500 V DC, between case and lead wire)			
	Vibration	Total amplitude 1.5 mm or 10 G,10 Hz - 55 Hz - 10 Hz scan for 1 minute, two hours each direction of X, Y and Z			
	Shock	100 m/s² (10 G) , 3 times each in direction of X, Y and Z			
Temperature Characteristic		±3 % F.S. of detected pressure (25 °C) at temp. Range of 0 ~ 50 °C			
Port Size *4		F1 : R1/4", M5 ; F2 : NPT1/4", #10-32 UNF ; F3 : G1/4" (BSPP) , M5			
Lead Wire		Oil-resistance cable (0.15 mm²)			
Weight (With 2 Meter Lead Wire)		Approx. 110 g (Rear ported) ; Approx. 145 g (Bottom ported)			

NOTE :

*1 : Hysteresis value is adjustable within 1 ~ 8 digits for one point set mode and window comparator mode.

*2 : If analog voltage output is selected, the analog current output cannot be selected at the same time.

*3 : If analog current output is selected, the analog voltage output cannot be selected at the same time.

*4 : G port O-Ring material is NBR. if any special request, please contact KITA.

*5 : If set pressure unit is psi, the value requires to ten multiply by display value.

*6 : Air tube must be installed to maintain IP65.

KP52 SERIES

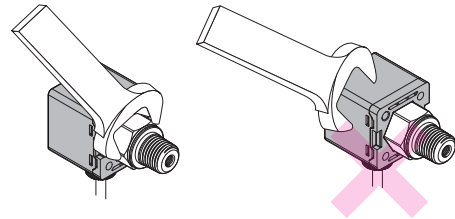
Pneumatic · Hydraulic High Pressure Sensor (Multi-Medium)

Panel Description



Installation Precautions

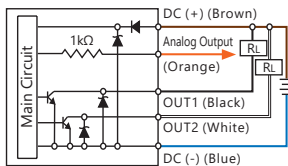
- When mounting, always use the wrench on the metallic area near the pressure port. Never apply a wrench to the plastic body, it will damage the sensor.
- Over tightening may cause damages to the port thread, mounting bracket and pressure sensor. Under tightening may result loosen or leakage.
- Apply pressure and power after installation and make necessary adjustments and inspect any possible signs of leakage to ensure proper installation.



Circuit Wiring Diagrams

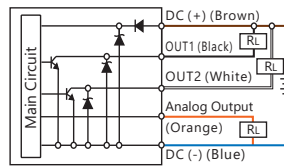
KP52H□ - 010 - □

2 NPN + Analog Output (1 ~ 5 V)



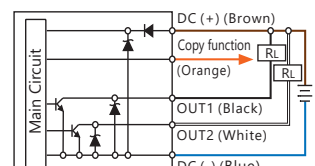
KP52H□ - 011 - □

2 NPN + Analog Output (4 ~ 20 mA)



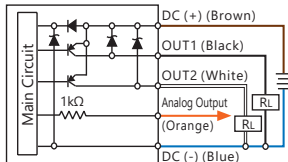
KP52H□ - 02 - □

2 NPN + Copy Function



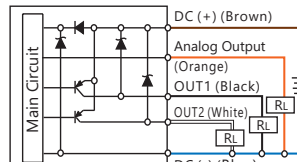
KP52H□ - 030 - □

2 PNP + Analog Output (1 ~ 5 V)



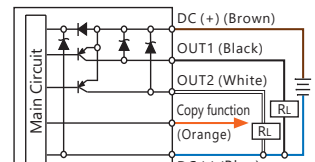
KP52H□ - 031 - □

2 PNP + Analog Output (4 ~ 20 mA)



KP52H□ - 04 - □

2 PNP + Copy Function



Ordering Information

K P 5 2 H □ - 0 1 0 - F 1 □

Pressure Range

07 (0 ~ 7.00 MPa)
10 (0 ~ 10.00 MPa)
25 (0 ~ 25.0 MPa)
40 (0 ~ 40.0 MPa)

Output Specifications

010 : 2 NPN Output & Analog Output (1 ~ 5 V)
011 : 2 NPN Output & Analog Output (4 ~ 20 mA)
02 : 2 NPN Output & Copy Function
030 : 2 PNP Output & Analog Output (1 ~ 5 V)
031 : 2 PNP Output & Analog Output (4 ~ 20 mA)
04 : 2 PNP Output & Copy Function

Pressure Port

F1 : R1/4", M5
F2 : NPT1/4", #10-32UNF
F3 : G1/4" (BSPP) , M5

Piping Direction

Blank : Rear ported
L : Bottom ported

Optional Parts

BT-10 : Mounting bracket PA-F : Panel adapter + Front protective lid
BT-11 : Mounting bracket I-0360 : Snubber(for Pressure Port F1&F3)
PA-E : Panel adapter I-0379 : Snubber(for Pressure Port F2)
* KP52H are suggested to select a snubber.

Optional Parts

■ Mounting Bracket : BT-10 / BT-11

■ Panel Adapter : PA-E

■ Panel adapter + Front protective lid : PA-F

■ Snubber

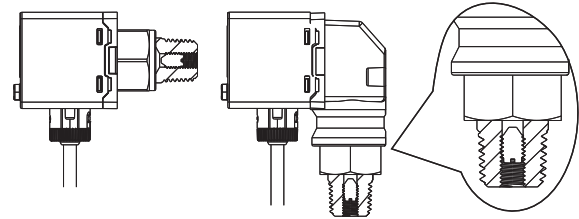


I-0360 : for Pressure Port F1&F3
I-0379 : for Pressure Port F2

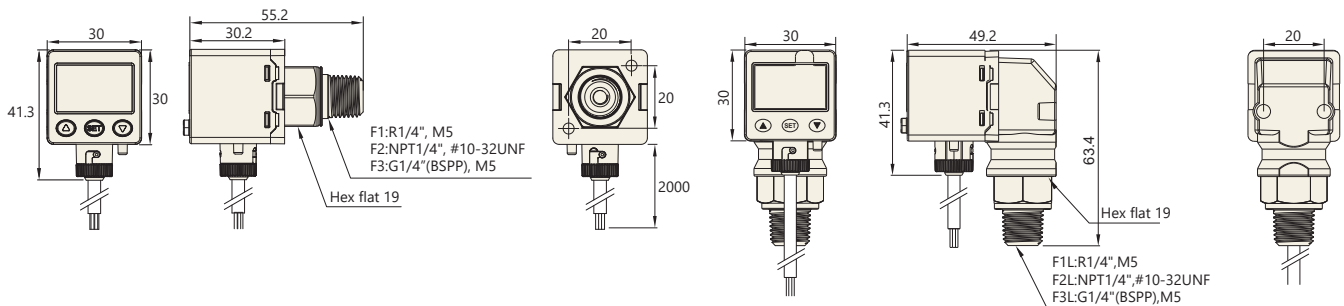
Removable Snubber Installed

- Pressure port equipped with snubber can avoid damage caused by sudden pressure surge of water or oil to improve product durability.

* When snubber is clogged with contaminants, please use a flat head screwdriver to remove the snubber, clean and reinstall.

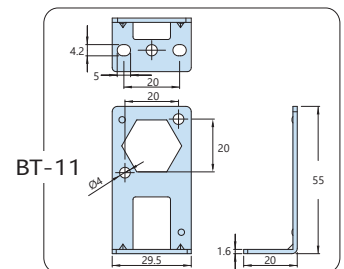
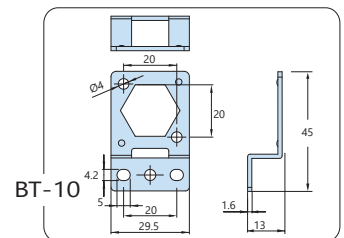
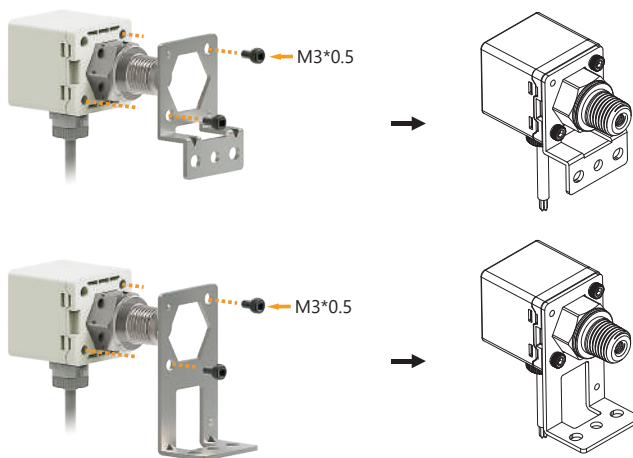


Dimensions

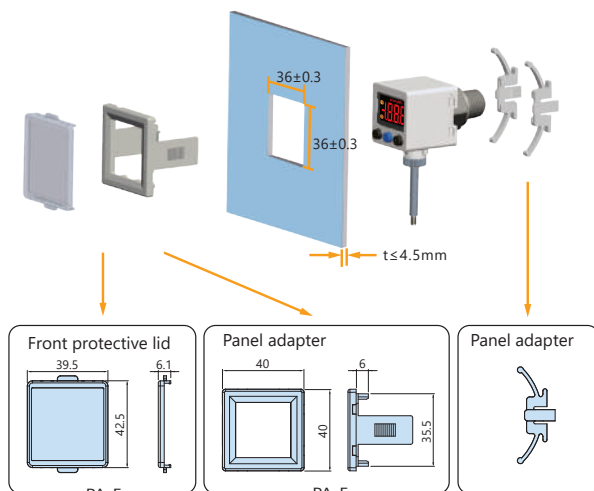


Optional Parts Dimensions

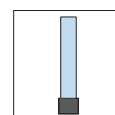
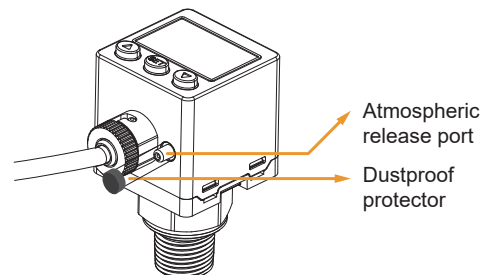
1 Mounting Bracket



2 Panel Mount Adapter + Front Protective Lid



3 IP65 Protector



Caution:
This device must be installed to maintain IP 65 (Dust and splash proof) enclosure rating.

Unit : mm