

# SU6

## Sanitary Pressure Gauges with Contact Switch

### Outline

This pressure gauge with contact switch is specially designed to be used for pressure measuring in a variety of fields where hygiene is taking into consideration, such as food, medicine, cosmetics and biology.

### Features

- Contact switch function for an alarm to set buzzers, lamps, etc. on and off.
- The wetted part is stainless steel, providing excellent corrosion resistance.
- The case features IP65 ( $\phi 75$ :IP64) waterproof construction. It can be washed and easily drained.
- The new diaphragm design lessens temperature errors.



#### 1S Ferrule wetted parts

The diaphragm is optimized for the inside diameter of ISO (IDF) 1S pipes, keeping contamination to a bare minimum through optimal fitting.



Diaphragm diameter:  $\phi 23$

### Specifications 1

#### Fluid:

Air or liquid

#### Operating condition:

Normal conditions (No flammable liquids or explosive gaseous atmospheres)

#### Mounting:

Stem mounting (A-frame)  
Standard shape or Radiation fin shape

#### Size:

$\phi 75$ ,  $\phi 100$

#### Connection type:

Ferrule, Nut, Male type ISO (IDF) Standard, and Union thread type

#### Connection size:

1S, 1½S, 2S, 2½S, 3S, G1½B  
(1S: Ferrule type only, G1½B: Union thread type only)

#### Wetted parts material:

Diaphragm SUS316L  
Joint SUS316 or SUS316L

#### Pressure range:

0 to 0.2 → 0 to 5MPa  
-0.1 to 0.1 → -0.1 to 2MPa

#### Operating temperature:

Ambient -5 to 40°C (no freezing)  
Wetted parts -5 to 100°C (Radiation fin type: -5 to 135°C)

#### Allowable temperature range:

Ambient -5 to 60°C (no freezing)  
Wetted parts -5 to 150°C

#### Accuracy:

$\pm 1.5\%$ F.S. at 23°C

\* This is accuracy when the contact is free.

#### Temperature coefficient:

Ambient 0.2%F.S./°C or less  
Wetted parts 0.1%F.S./°C or less

#### Dead band:

2%F.S./ or less (AC), 5%F.S./ or less (DC)

#### Switch:

Contact switch (Open low contact pressure)  
\*Please keep this on "Open" during use.

#### Number of contact:

1 contact or 2 contacts \*2 contacts:  $\phi 100$  only

#### Filled liquid:

Propylene glycol (Compound gauge: Silicone oil)

#### Case material:

$\phi 75$  Inner frame SUS304  
Outer frame ADC12 Nickel plate  
 $\phi 100$  Inner frame CAC203 Chrome plate  
Outer frame C3771 Chrome plate

#### Case construction:

IP65 ( $\phi 100$ ), IP64 ( $\phi 75$ )  
(When the range is 0.3MPa or less, it will be ensured with lowered vent plug.)

#### Weight:

Approx. 2.2 kg (Radiation fin shape with nut connection)

#### Glass material:

Inorganic glass or organic glass (Acrylic)

### Specifications 2

#### Electrical characteristics:

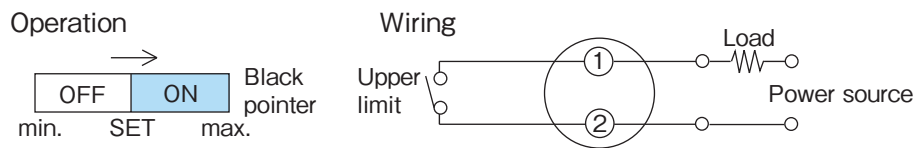
Rating Rated			Withstand voltage	Insulation resistance
	Load resistance	Inductive load*		
100V AC	0.5A	0.05A	1000V AC Between terminals and case 1 minute	500V DC 100MΩ or more  Between terminals and case
100V DC	0.05A	0.01A		
• Inductive load : Power factor 0.6 or more (AC). Time constant 7 ms or less (DC). * Contact protection diode should be used.				

\*When inrush current is expected to occur due to use of inductive loads or long cables (20+ meters), please use a contact protection circuit.

### Contact type and wiring System

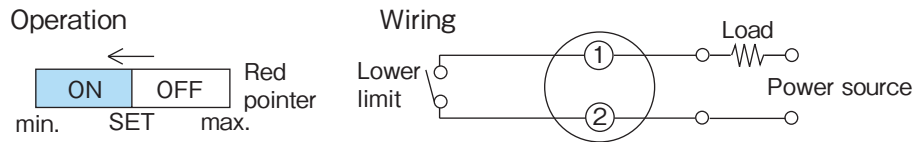
#### 1. Upper limit type single contact (H)

This activates the contact and turns the circuit on when pressure rises and reaches the set pressure.



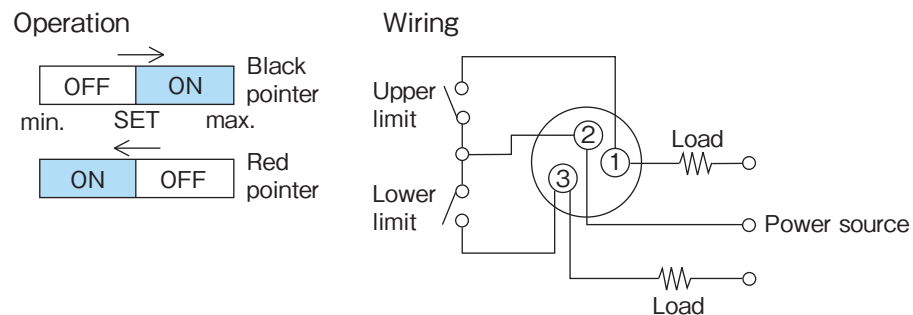
#### 2. Lower limit type single contact (L)

This activates the contact and turns the circuit on when pressure drops and reaches the set pressure.



#### 3. Upper/Lower limit type double contact (HL) (φ 100 only)

This combines the upper limit type and lower limit type and has two circuits, but has a common pole, so the two circuits are not independent.



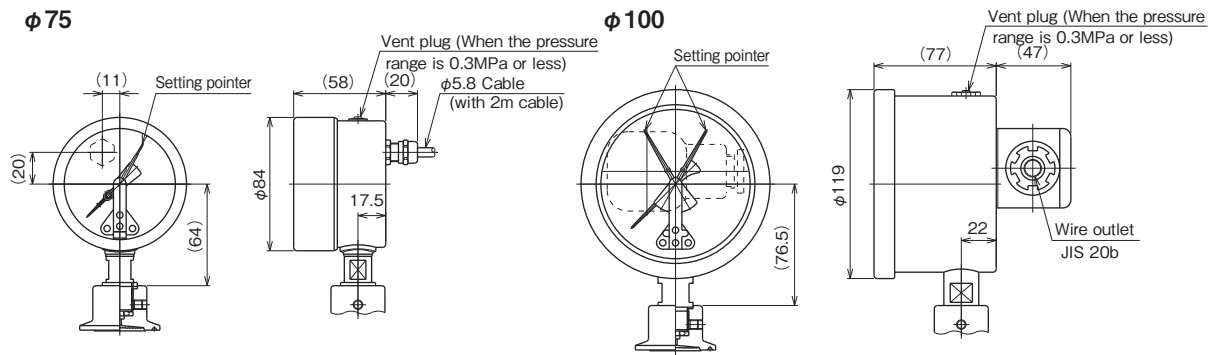
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## Sanitary Pressure Gauges with Contact Switch

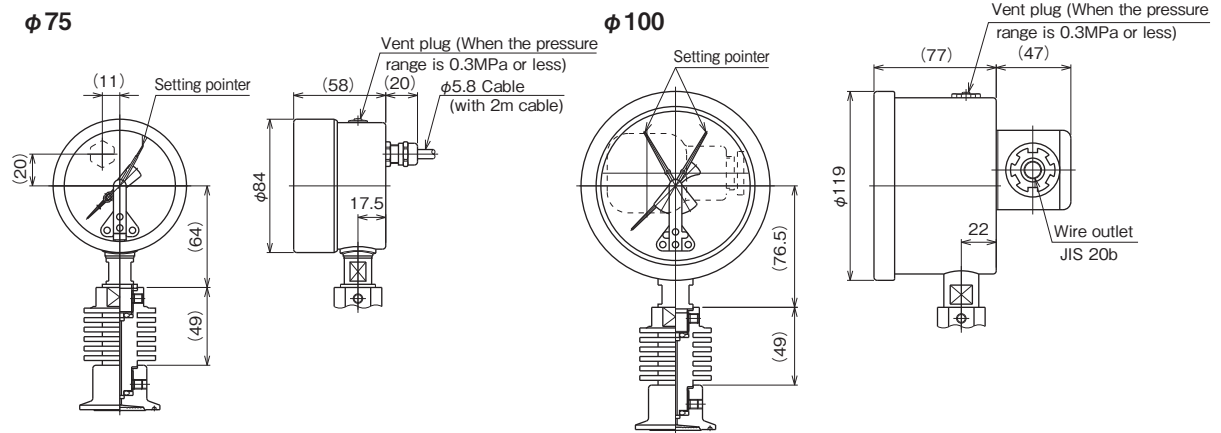
### Dimensions 1

Unit: mm

#### Standard shape



#### Radiation fin shape

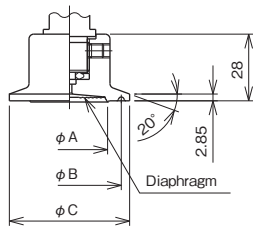


### Dimensions 2

Unit: mm

#### [Connection type]

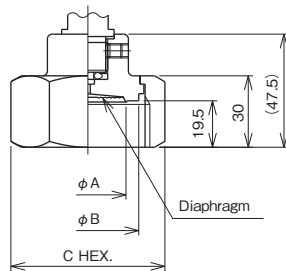
##### Ferrule type



Ferrule size	A	B	C
1S	23	43.5	50.5
1½S	32		
2S	47	56.5	64

ISO (IDF) Standard

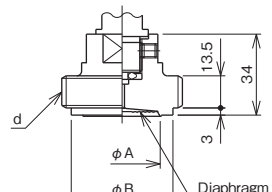
##### Nut type



Nut size	A	B	C
1½S	32	42.7	56x64.7
2S	47	56.2	71x82

ISO (IDF) Standard

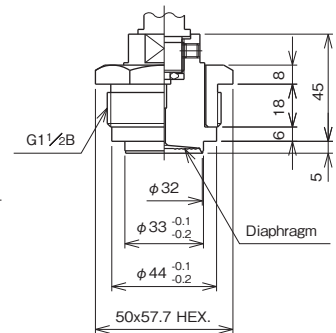
##### Male type



Thread size d	A	B
1½S	32	42.7
2S	47	56.2

ISO (IDF) Standard

##### Union thread type



ISO (IDF) Standard

### Model number configuration

Please specify the model number, each specs and the range for ordering.

Model

S U 6 — ① ② ③ — ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮

Sanitary Pressure Gauges with Contact Switch

Model number			Selective spec.	Additional spec. (Option)
Model	Size	Frame	Shape of radiator	
	0 φ75	A-frame	Standard	
	1 φ100		Standard	
	2 φ75		Radiation fin	
3 φ100	Radiation fin			
① Connection type *1	1	Ferrule type (Please use within proof pressure of the clamp and gasket)		
	2	Nut type		
	3	Male type		
	4	Union thread type ②3 G1½B only		
② Connection size	2	1S (Only Ferrule type can be manufactured)		
	3	1½S or G1½B (Only union thread type can be manufactured with G1½B)		
	4	2S		
	5	2½S		
	6	3S		
③ Wetted parts material *2	3	SUS316		
	4	SUS316L		
	5	SUS316 Buff finish (Union thread type cannot be manufactured)		
	6	SUS316L Buff finish (Union thread type cannot be manufactured)		
④ Pressure range (MPa)	1	-0.1 to 1, 1.5, 2 Compound gauge		For ② size 2
		-0.1 to 0.6, 1, 1.5, 2 Compound gauge		For ② size 3
		-0.1 to 0.3, 0.4, 0.6, 1, 1.5, 2 Compound gauge		For ② size 4 and 5
		-0.1 to 0.1, 0.2, 0.3, 0.4, 0.6, 1, 1.5, 2 Compound gauge		For ② size 6
	2	0 to 1, 1.5, 2, 2.5, 3.5		For ② size 2
		0 to 0.6, 1, 1.5, 2, 2.5, 3.5, 5 (5MPa Ferrule cannot be manufactured)		For ② size 3
		0 to 0.4, 0.6, 1, 1.5, 2, 2.5, 3.5		For ② size 4
		0 to 0.4, 0.6, 1, 1.5, 2		For ② size 5
0 to 0.2, 0.3, 0.4, 0.6, 1, 1.5, 2		For ② size 6		
⑤ Contact	A	H: Upper limit 1-contact		
	B	L: Lower limit 1-contact		
	C	HL: Upper/Lower limit 2-contacts (φ100 only)		
⑥ Switch	0	Standard (Contact switch)		
⑦ Wire outlet	0	Special wire outlet φ75 only with 2m cable		
	7	Ground JIS 20b φ100 only		
		Other specifications (φ100 only)		
⑮ Documents	0	Nil		
	1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill sheet, test report (1 pc 1 copy), inspection / traceability certificate, attended inspection		

Please specify the pressure range and units separately besides selection of range code.

**⚠ Caution**

\*1 Please use it within the range of proof pressure of connected parts (clamp, nut, and gasket, etc.).  
When using Ferrule types, many commercial clamps have a pressure resistance of 1MPa or less. Please keep the pressure at 1MPa or less as long as you are not using special-purpose items.

[Manufacturing range]

- Filled liquid: Propylene glycol (Compound gauge: Silicone oil)
- Wetted part material: Diaphragm; SUS316L, Fitting; SUS316 or SUS316L
- Glass: Inorganic glass (Please contact us for acrylic glass.)

\*2 Please contact us for electrolytic polishing wetted parts and passivation treatment specifications.

\* Parts required for installation, such as clamps, nuts, gaskets, etc., are to be prepared by the user.

\* Specify "X" if there is no specification item.

○The setting scale includes setting errors, so for accurate adjustment, please be sure to set configurations in comparison with the master gauge and standard pressure gauge.