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**Measuring instrument**

# Digital pressure switch

Small, big LED display, and easy to connect by union screw!



RoHS



- Small type: Dimension  $\Phi$  38x40mm Weight: 186g
  - LED display : Letter height: 11mm, 7-segment LED
  - LED color : Red and Blue (※ Blue is color universal design.)
  - Connection: R1/4 union screw
  - Waterproof: IP67 equivalent
  - Proof pressure: Quadruple ( 4 times )
  - Material: Body SUS304, diaphragm SUS316
  - Operation: 2 buttons
- ※ Color universal design: Easy to look for many people without individual differences.

## General spec

Model	DPS-1.0	DPS-2.5	DPS-10	DPS-16
Pressure range	0~1.0MPa	0~2.5MPa	0~10MPa	0~16MPa
Proof pressure	4MPa	10MPa	40MPa	64MPa
Dissolution	0.01MPa		0.1MPa	
Accuracy	$\pm 1.6\%$ F.S. $\pm 1$ digit		$\pm 2\%$ F.S. $\pm 1$ digit	
Screw type	R1/4			
Ambient temp.	- 10 ~ 50°C			
Fluid temp.	- 10 ~ 70°C			
Fluid	Air, Water, Oil			
Main materials	SUS304, SUS316, FKM			
Protection	IP67 Equivalent			
Environment	RoHS			
Weight	186g (Cable not included)			

## Electric, output spec

Power source	DC12 ~ 24V
Max. current	Max. 30mA
Output	NPN/PNP (※ Factory setting: PNP) Max. load current: 100mA
Connection	M12×1-4 pins connector (DC)
Display	7-segment LED (Letter: 11mm)
Color	Red↔Blue (※)
Pressure unit	MPa
Output display	1LED (Red)
Output state	LED (Red) ON/Output ON LED (Red) OFF/Output OFF
Mode	Hysteresis / Window comparator (※)
Function	Key lock, Zero set, "O.L" indicator

※ Optional setting

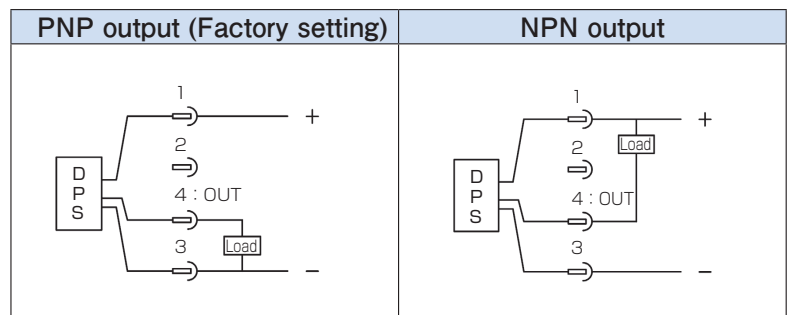
## Description

### DPS - 10

① ②

①	Name	Digital pressure switch
②	Pressure range	1.0 : 0 ~ 1.0MPa
		2.5 : 0 ~ 2.5MPa
		10 : 0 ~ 10 MPa
		16 : 0 ~ 16 MPa

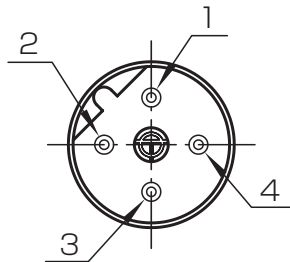
## Output



See P13 about sensor cables.

## Wiring connection

M12×1-4 pin connector



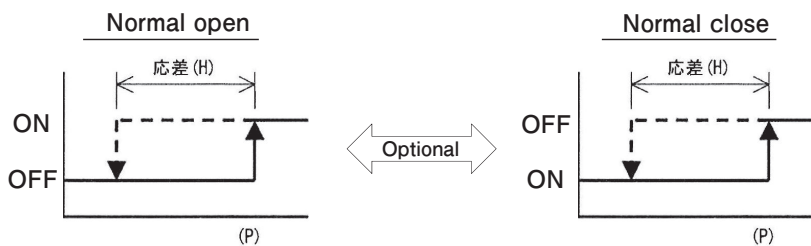
- ① (+) Power source: DC + 12~24V
- ② : Unused
- ③ (-) : DC 0V
- ④ Output : NPN or PNP Optional setting  
(※ Factory setting: PNP)

## Operational mode

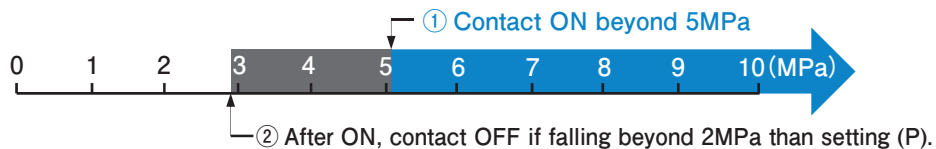
### Detection mode: "Hysteresis" "Window comparator"

(You can optionally select the display colors, "Red" or "Blue".)

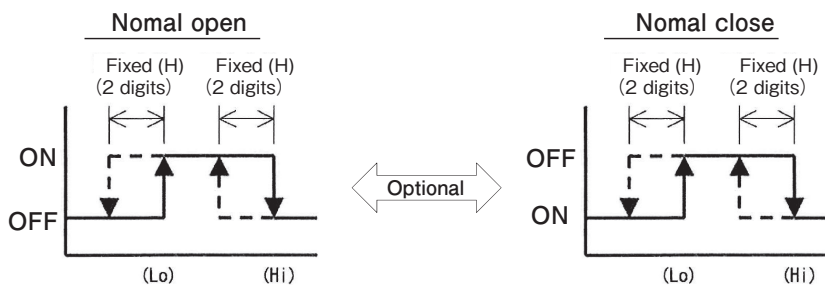
#### Hysteresis (H) mode (H): Changeable



e.g. DPS-10 (Normal open) If setting pressure (P)=5MPa, Hysteresis (H)=2MPa



#### Window comparator mode High/Low limit setting (H): Fixed 2 digits※



e.g. : DPS-10 (Normal open) If setting pressure (Lo)=5MPa, (Hi)=8MPa

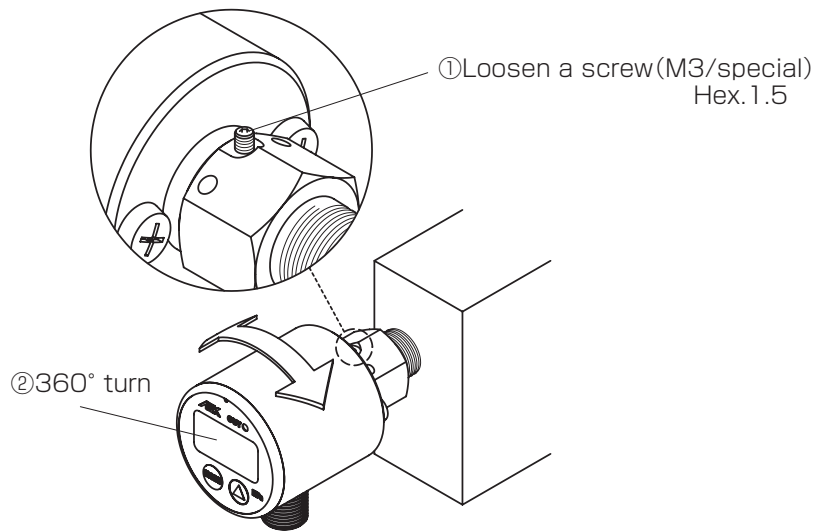
Contact ON beyond 5MPa, and contact OFF beyond 8MPa.



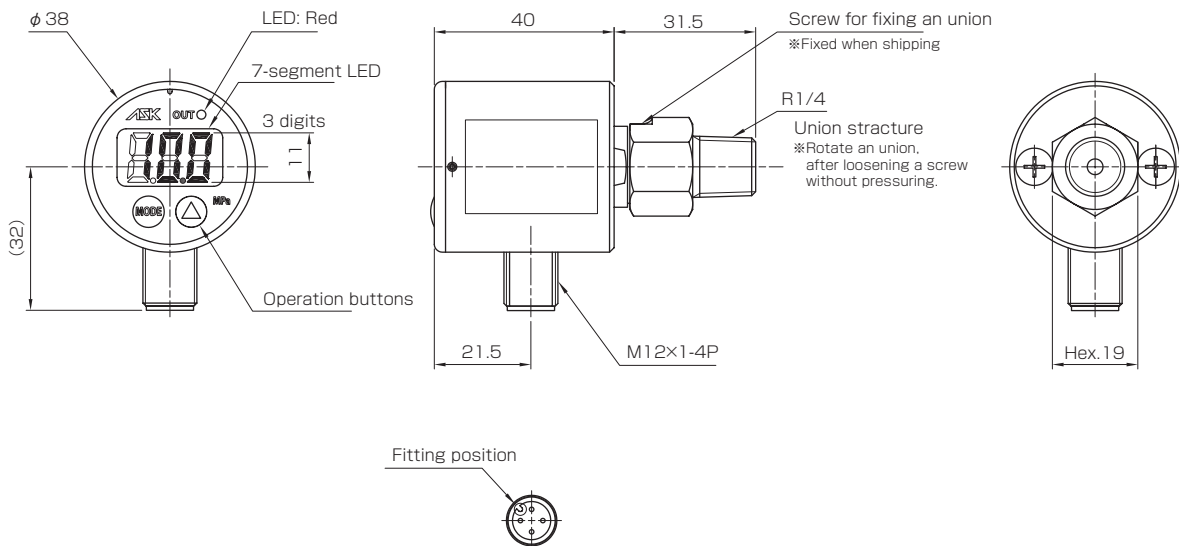
※ Digit: Value given by the characteristic (resolution) of digital device  
 · DPS-1.0: 2 digits = 0.02MPa · DPS-10: 2 digits = 0.2MPa  
 · DPS-2.5: 2 digits = 0.02MPa · DPS-16: 2 digits = 0.2MPa

## Union structure

You can connect by a union screw without rotating a main body.



## Dimension



Order no.	Model
A70301007	DPS-1.0
A70301005	DPS-2.5
A70301001	DPS-10
A70301003	DPS-16

# Digital flow sensor

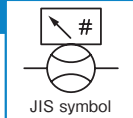


Three functions: Flow switch, flow sight, and flow meter!

# DFS

RoHS

※The proper symbol isn't offered by JIS, as this product has multiple functions. Please refer to the symbol as follows, when you write in a circuit design.



- How to connect: M12 × 1-4 pin connector
- You can use this with an input power supply of from 12 to 24 V DC.
- Amplifier protection structure conforms to IP67 equivalent.
- You can set a lower limit of flow rate. If flow rate falls below the limit, you are warned by a red LED lamp and an output signal.
- In case of low pressure spec, you can check flow of fluid by observing rotor rotation from a metal/plastic cap.
- In case of high pressure spec, you can measure flow rate at 25MPa. (Except DFS-1) If you use DFS-2, 3, 6, or 8, You must use an all-metal cap for high pressure. Factory setting: all-metal cap for high pressure.
- You can select a position (horizontal, vertical, or tilted) to install.
- Rotor can be cleaned by air blow, after taking off a metal cap from a main body.

Measuring instrument

## Body and overall spec

Model	DFS-1	DFS-2	DFS-3	DFS-6	DFS-8
Screw type (Both sides)	Rc1/8	Rc1/4	Rc3/8	Rc3/4	Rc1
Max. flow rate (ℓ/min)	1	10	20	50	100
Measurement range (ℓ/min)	0.2 ~ 1	1 ~ 10	2 ~ 20	5 ~ 50	10 ~ 100
Max. pressure	3MPa	3MPa (if a metal/plastic cap is installed) 25MPa (if an all-metal cap is installed)			
Flow sight function	Available	Available (if a metal/plastic cap is installed.) Not available (if an all-metal cap is installed. ※ 1)			
Accuracy ※2	±0.1ℓ/min	±0.5ℓ/min	±1.0ℓ/min	±2.5ℓ/min	±5.0ℓ/min
Fluid ※3	Petroleum oil, Lubrication oil	Petroleum oil, Lubrication oil Water, Water-soluble cutting oil			
Pressure loss ※4	0.03MPa or less	0.025MPa or less			
Temperature	Fluid temp.: 0 ~ 80°C, Ambient temp.: 0 ~ 50°C				
Material	Fluid contact: C3604 (Ni plating), Nd-Fe-B, POM, PC, NBR				

※ 1 : You can't visually observe flow, when you use an all-metal cap.

※ 3 : Adjustment depends on fluid which you use. Specify it when ordering.

※ 5 : You can select non-display mode.

※ 6 : You can set a lower limit of flow rate optionally. Regarding how to set, refer to an instruction manual.

※ 2 : Guaranteed value at 32 cSt about 0 spec accuracy

※ 4 : Indicated a value at 32 cSt, when max. flow rate.

## Amplifier spec

Model	DFS-1	DFS-2	DFS-3	DFS-6	DFS-8
Power	DC12V ~ 24V				
Current	Max. 100mA (consumption)				
Output	NPN/PNP (Optional setting) Factory setting is NPN. Max. load: 100mA				
Connection	M12 × 1-4 pin connector (DC)				
Protection	IP67 equivalent				
Material	ABS, NBR, PA, Polyester				
Display ※5	7-segment LED, 2 LEDs (Green/Red)				
Output state ※6	More than adjusted value: LED (Green) ON / LED (Red) OFF, Output ON Less than adjusted value: LED (Green) OFF / LED (Red) ON, Output OFF				

## Description

**DFS - 2 - 0 - ※**

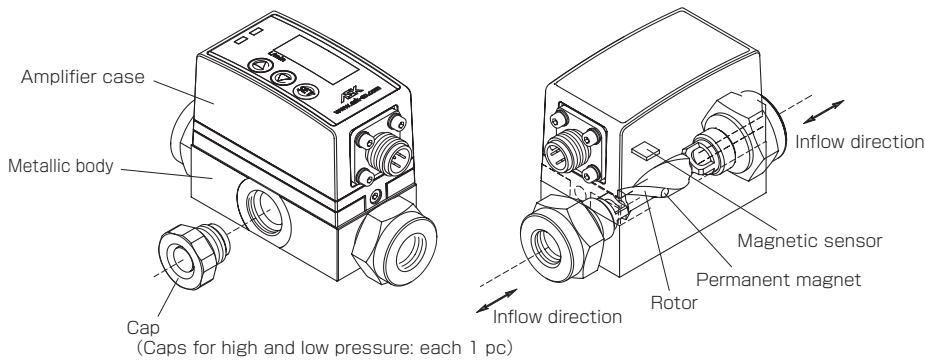
①      ②      ③      ④

①	Name	Digital flow sensor
②	Screw type (Both sides)	1 : Rc1/8 2 : Rc1/4 3 : Rc3/8 6 : Rc3/4 8 : Rc1
③	Fluid	O: Petroleum oil, lubrication oil (DFS-1 : Only O type) W: Water, water soluble cutting oil
④	Custom spec	Please contact us.

See P13 about sensor cables.

# Digital flow sensor

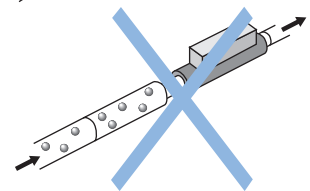
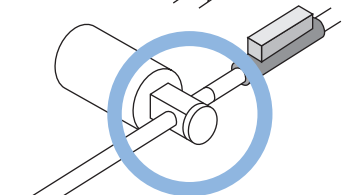
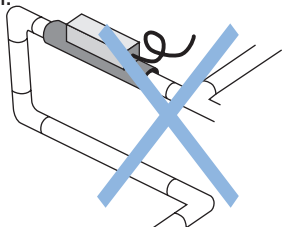
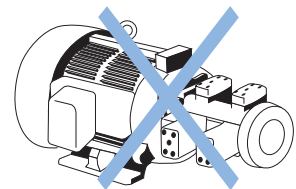
## Principle



The detection part of a digital flow sensor utilizes rotation of a rotor (turbine) installed in the passage. The measuring part detects, by means of the external magnetic sensor, the rotational speed of the permanent magnet mounted on the circumference of the rotor. You can select NPN output or PNP output optionally.

## Precaution of use

- Do not use this sensor in the place to be sprayed with coolant liquid directly to an amplifier.
- An amplifier case is made of ABS. Do not use the ingredients of coolant influencing ABS.
- Be sure to use within the maximum flow rate.
- Do not install this near a machine generating magnetic field like a motor to avoid malfunction.
- Upstream side: 10 times of pipe inner diameter, downstream side: 4 times for straight pipe  
Don't install a curve, confluence, or junction (like an elbow, tee, or throttle valve) near an outlet side.



(Unit : mm)

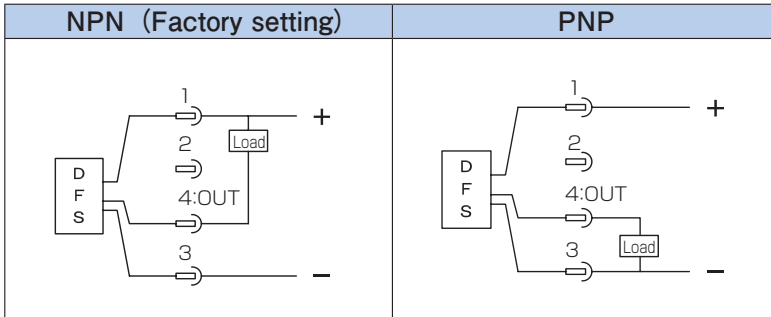
Digital flow sensor	Straight pipe (upstream)	Straight pipe (downstream)
DFS-1	100 or more	40 or more
DFS-2	140 or more	60 or more
DFS-3	170 or more	70 or more
DFS-6	270 or more	110 or more
DFS-8	340 or more	140 or more

- The rotor incorporates a magnet. For petroleum oil and lubricant oil, install a filter of 5 to 20 microns; for water and coolant, a filter of 20 to 50 microns.
  - ※ Contact our sales staff, for use of a NC lathe for general purpose or grinding machine with coolant containing much cut dust.
  - ※ If cut dust sticking to the rotor prevents it from rotating, remove the front cap of the main body and perform air blow to eliminate the cut dust.
- Regarding "O" spec, influence of fluid viscosity may cause "change of measuring value" and "consumption in short time of components". Use fluid at 32cSt  $\pm$  50%.

## Example of use

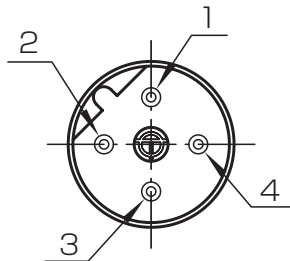
- Seizure can be avoided by oil flow control for the spindles and bearing of machine tools, printing machines, and presses.
- Tool damage and fire can be prevented by control of coolant flow to machine tools.
- This sensor is used to check if a filter is clogged or not.
- Coolant flow control.

## Output type



## How to connect

M12×1-4 pin connector



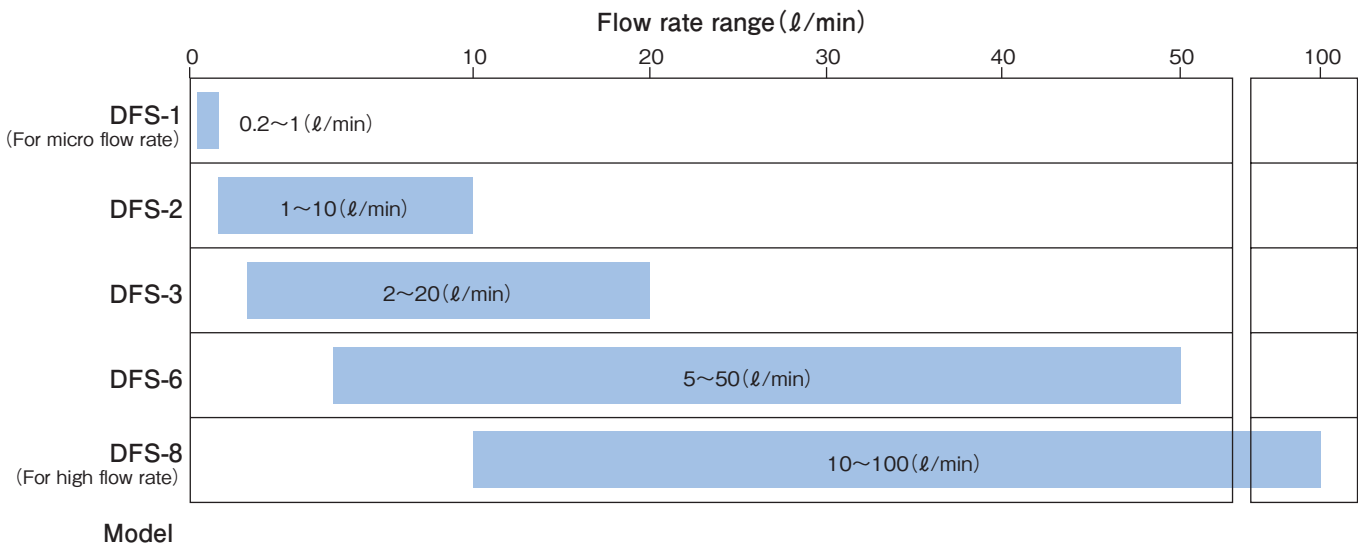
- ① (+) Power source : DC +12~24 V
- ② : Unused
- ③ (-) : DC 0V
- ④ Output : NPN or PNP Optional setting  
(※ Factory setting : NPN)

## Accuracy

Hydraulic oil: 32cSt / O spec  
Water: / W spec

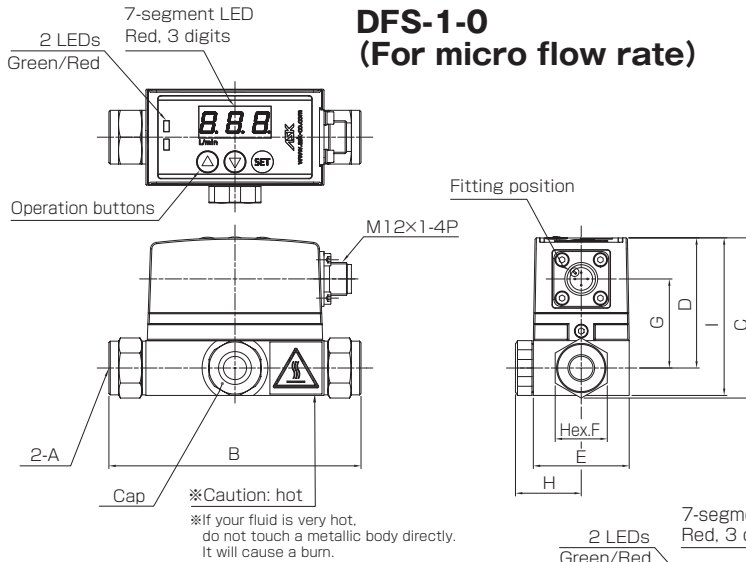
The test at our factory is performed in the condition as follows.  
Confirm specifications of each digital flow sensor about accuracy.

## Sensor selection chart

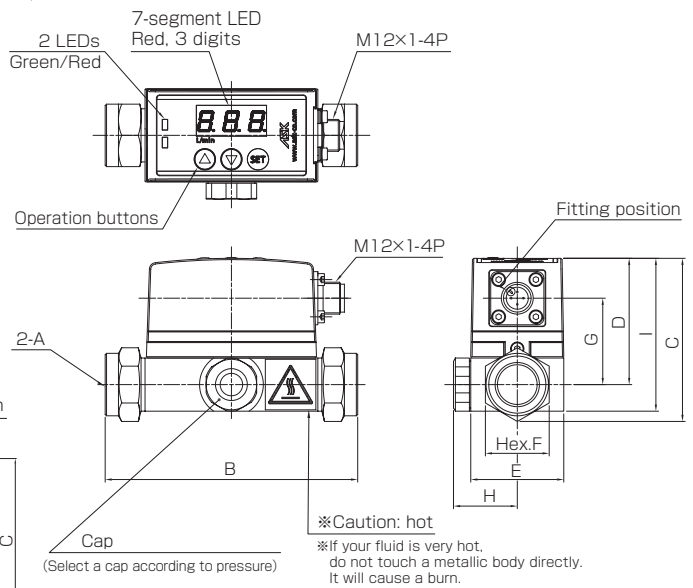


## Dimension

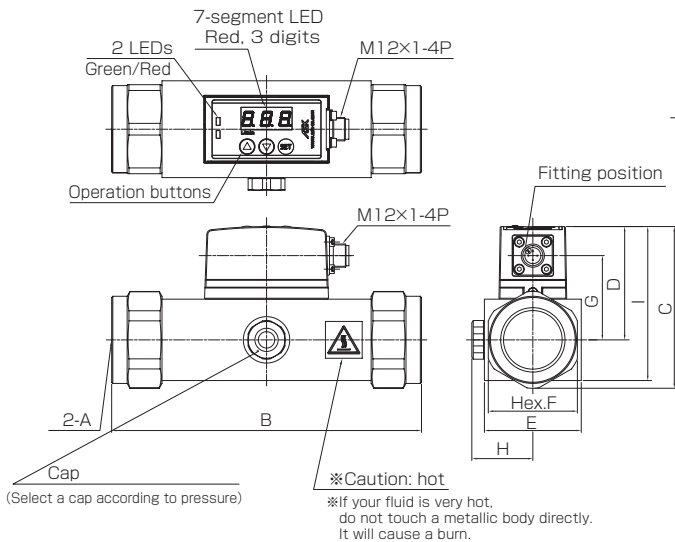
### DFS-1-0 (For micro flow rate)



### DFS-2 · DFS-3 · DFS-6



### DFS-8 (For high flow rate)



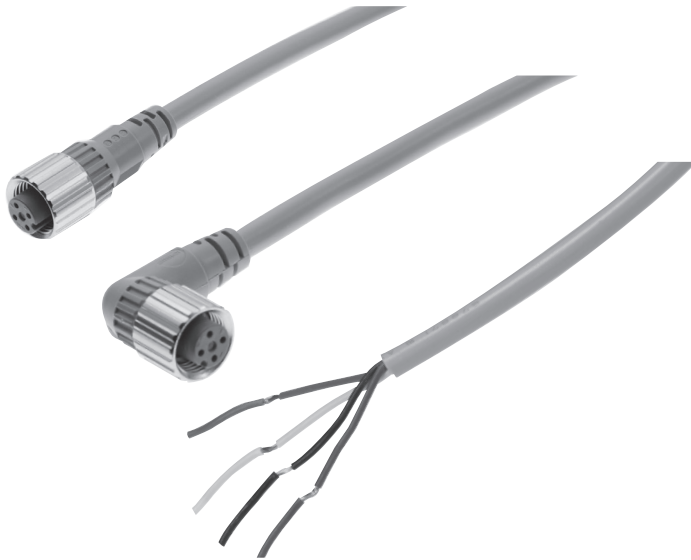
Order no.	Model	A	B	C	D	E	Hex.F	G	H	I	Weight
A60200205	DFS-1-0	Rc1/8	92	58.5	47.5	35	19	32.5	24	57.5	480g
A60200207	DFS-2-W	Rc1/4	95	61.5	47.5	35	24	32.5	24.5	57.5	510g
A60200209	DFS-2-0										
A60200211	DFS-3-W	Rc3/8	95	61.5	47.5	35	24	32.5	24	57.5	470g
A60200213	DFS-3-0										
A60200215	DFS-6-W	Rc3/4	140	73.5	52.5	45	36	37.5	28	67.5	1140g
A60200217	DFS-6-0										
A60200219	DFS-8-W	Rc1	160	83.5	58.5	50	46	43.5	31.5	79.5	1920g
A60200221	DFS-8-0										



# M12×1-4 Pin Cable for DC

# XS2F

※ This product is used with DPS (P6) and DFS (P9).



## Description

### XS2F - D421 - 5M

①                      ②                      ③

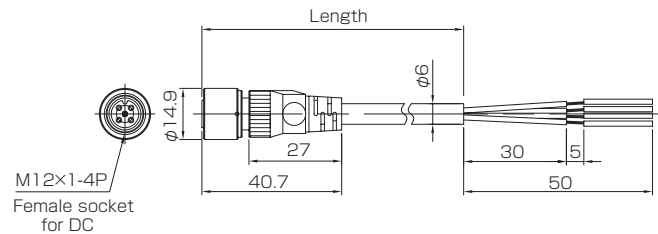
①	Name	M12×1-4 Pin cable for DC
②	Profile (Connector)	D421 : Straight type D422 : L type
③	Cable length	5M : 5m 10M : 10m

## Specification

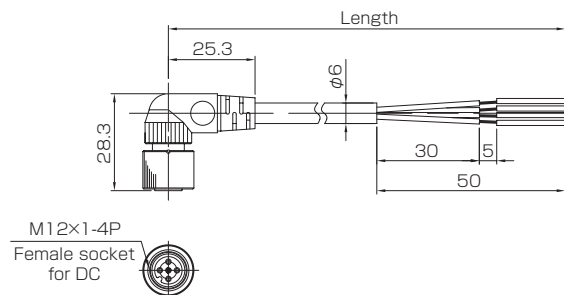
Current	3A
Voltage	DC 125V
Contact resistance (Connector)	40mΩ or less (20mV or less, 100mA or less)
Insulation resistance	10 <sup>3</sup> MΩ or more by DC500V
Proof voltage (Connector)	AC 1500V /1min (Leak current: 1mA or less)
Protection degree	IP67 (IEC529)
Temp. range	-25~70°C
Humidity range	20~85%RH

## Dimension

### XS2F-D421-5M · XS2F-D421-10M



### XS2F-D422-5M · XS2F-D422-10M



Pin no.	Color
①	BROWN
②	WHITE
③	BLUE
④	BLACK

# Level switch



LSN

This level switch has been developed to detect liquid level in oil and water tanks!

RoHS

※ See a water pressure product page about SUS spec.



- This is a small and low price level switch consisting of a high accuracy reed switch and a float with a built-in magnet.
- It ensures stable operation without being affected by fluid temperature.
- It is installed from the top surface of a tank, using a flange with a connector.
- Depth of liquid detection (L): 80~500mm (By the 1 mm)

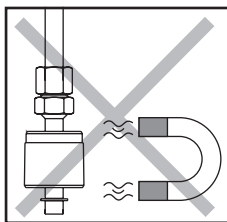
※ Regarding M12×1-4 pin connector type, contact us.

## Specification

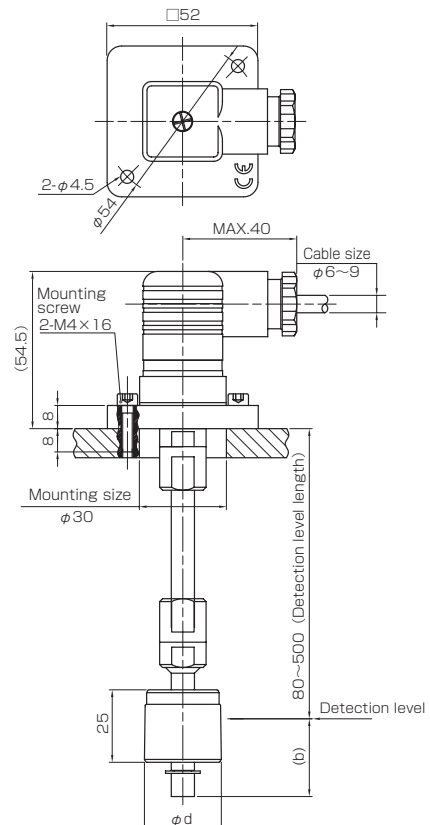
	DC24V spec		AC100V spec	
	For oil	For water	For oil	For water
Contact capacity	1.2VA		2VA	
Contact resistance	1 Ω or less			
Max. voltage	DC24V		AC100V / 110V	
Max. current	0.05A DC		0.02A AC	
Min. current load	5mA			
Insulation resistance	50M Ω or more by DC500V			
Proof voltage	AC1000V / 1 min			
Ambient temp.	- 10°C ~ 80°C			
Specific gravity	0.47 ± 0.05	0.7 ± 0.05	0.47 ± 0.05	0.7 ± 0.05
φ d	26.5	28	26.5	28
(b)	(26.8)	(26.5)	(26.8)	(26.5)
Weight	200g (Without a pipe)			
Standard accessories	① O-ring (JIS B 2401 1A P-38) : 1 pc ② Hexagon socket head bolt (M4×16) : 2 pcs			

### Note

Use in a magnetic field would cause malfunction.



## Dimension



## Description

**LSN - 200 L - A - 11**

①      ②      ③      ④      ⑤

①	Name	Level switch
②	Level length ※1	Min. 80mm ~ Max. 500mm (By the 1mm) Setting accuracy: ± 3mm
③	Contact type	H-A : ON above level (OFF below level) H-B : OFF above level (ON below level) L-A : ON below level (OFF above level) L-B : OFF below level (ON above level)
④	Fluid	Unmarked: For oil (Standard spec: NBR float) W : For water (Optional spec: SUS float)
⑤	Model no.	11 : Standard spec (DC24V) 51 : Standard spec (AC100V)

※ 1: Specific gravity of fluid = 1.0

# Temperature switch

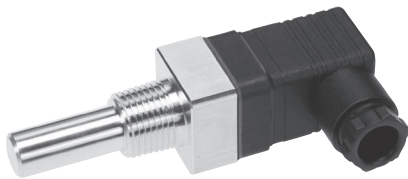
This is a bimetal temperature switch developed to detect oil temperature in a oil tank!

# TSD/TSF

RoHS

※ See a water pressure product page about SUS spec.

Measuring instrument



TSD



TSF

## TSD: Temperature switch (From tank side)

- A switch is directly installed on the side of a tank, using R1/2 screw.
- Low cost compared to "TSF" type
- Connector type

## TSF: Temperature switch (From tank top)

- It is installed from the top surface of a tank, using a flange with a connector.
- Install from the top of a tank so that a switch main unit is entirely immersed in oil.
- Detection length (L): 130~500mm (By the 1mm)

※ Regarding M12×1-4 pin connector type, contact us.

## Setting temp. (Fixed at our factory)

Setting temp. range	45°C ~ 75°C (By the 5°C)	
Setting temp. rank	45°C ~ 50°C	55°C ~ 75°C
Temp. differential	± 3°C	± 4°C

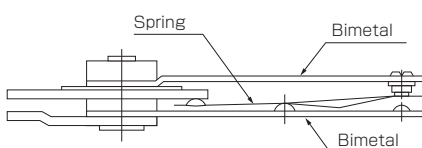
## Standard accessories (TSF)

Standard accessories	① O-ring (JIS B 2401 1A P-38) : 1pc ② Hexagon socket head bolt (M4 × 16) : 2pcs
----------------------	--

## Contact spec

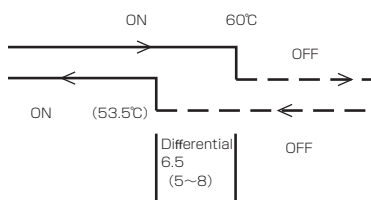
Model	Contact type	Differential	Contact capacity	Min. current	Temp. range	Contact life	Weight
TSD-※X-11	Temp. rise/OFF	45X~75X:6.5(5~8)°C 45Y~65Y:4.5(3~6)°C	AC125V 1.5A DC 12V 1.5A	50mA	-20~105°C	Mechanical life: 2 million times Contact life: 100 thousand under max. load	210g  Without a pipe 230g
TSD-※Y-11	Temp. rise/ON						
TSF-※X-11	Temp. rise/OFF	70Y~75Y:6.5(5~8)°C	AC250V 0.9A DC 24V 0.9A (Life: 100 thousand)	50mA	-20~105°C	Mechanical life: 2 million times Contact life: 100 thousand under max. load	210g  Without a pipe 230g
TSF-※Y-11	Temp. rise/ ON						

## Principle

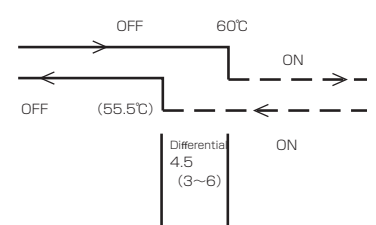


## Contact configuration

X (e.g.: if switch off at temp. rise of 60°C)



Y (e.g.: if switch on at temp. rise of 60°C)



## Description

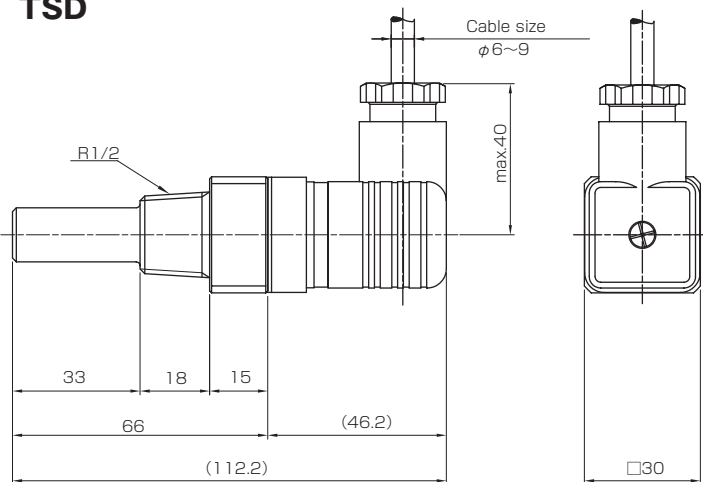
**TSF** - **※** **X** - **250** - **11**

①      ②   ③      ④      ⑤

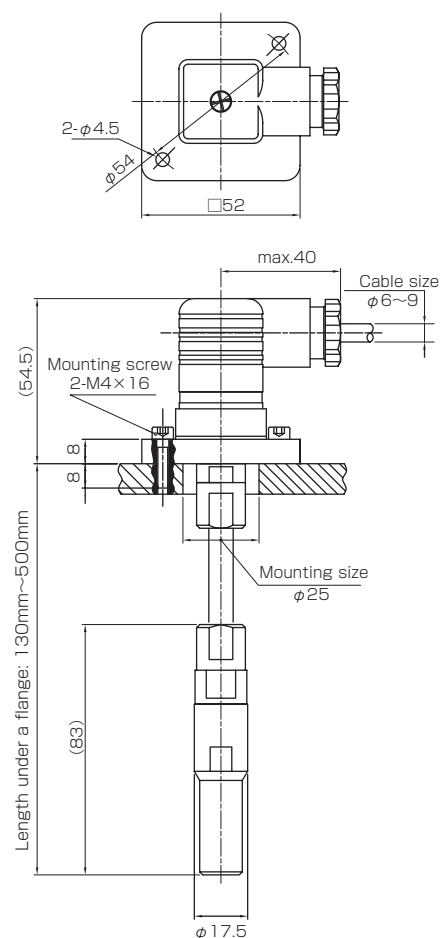
①	Name	TSD : Temperature switch (From tank side) TSF : Temperature switch (From tank top)
②	Setting temp.	45°C ~ 75°C (By the 5°C)
③	Contact type	X : Temp. rise/OFF Y : Temp. rise/ON
④	TSF length under flange (Except TSD)	Min. 130mm ~ Max. 500mm (By the 1mm)
⑤	Model no.	11 : Standard spec

## Dimension

### TSD



### TSF



# Bimetal thermometer

Temperature measurement: simple structure!

# RBT/NBT



JIS symbol



RBT



NBT

- High durability, simple structure, low price.
- Suitable for chemical and heavy electrical industries, ship, hydraulic system
- Protection tube is available.

## Description

**RBT - WT - 60 × 100 -**

①                      ②                      ③                      ④                      ⑤

①	Model	RBT : $\phi$ 60 (Case: SUS) NBT : $\phi$ 75, 100 (Case: ABS resin)	④	Temp. range	50 : 0 ~ 50°C 100 : 0 ~ 100°C 150 : 0 ~ 150°C
②	Screw type	WT : R1/2 union screw	⑤	Protection tube	Unmarked : Without a protection tube W : With a protection tube (Brass)
③	Size	60 : $\phi$ 60mm 75 : $\phi$ 75mm 100 : $\phi$ 100mm		Accuracy	$\pm$ 2% / F.S.

※ If you need material (SUS304) for a temp. sensor and a protection tube, contact us.

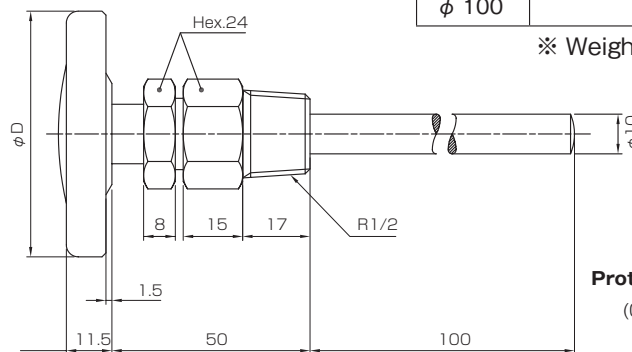
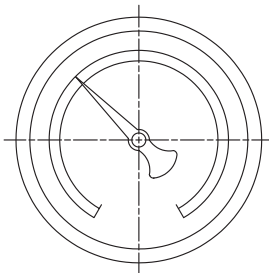
## Details

Size	Case material	$\phi$ D	Weight (Without a tube)
$\phi$ 60	SUS430	$\phi$ 62	130g
$\phi$ 75	ABS resin	$\phi$ 88	180g
$\phi$ 100		$\phi$ 110	230g

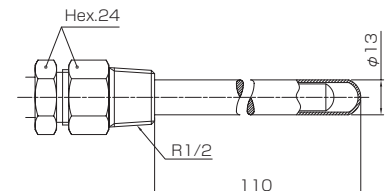
※ Weight of a protection tube: 100g

## Dimension

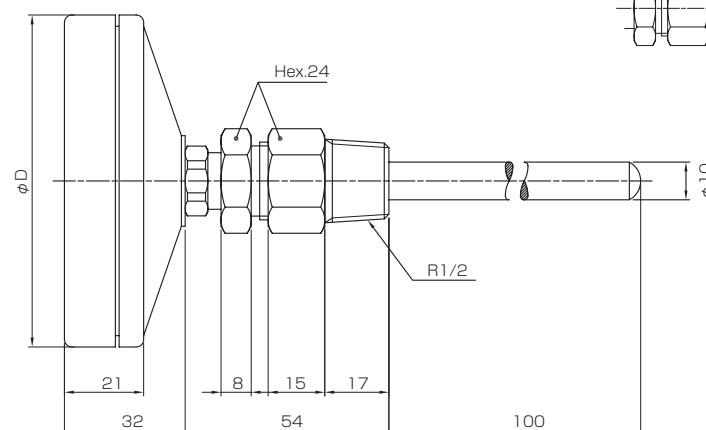
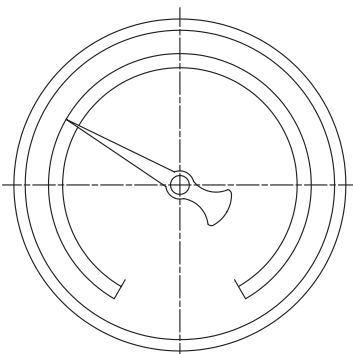
**$\phi$ 60**



Protection tube (Common)



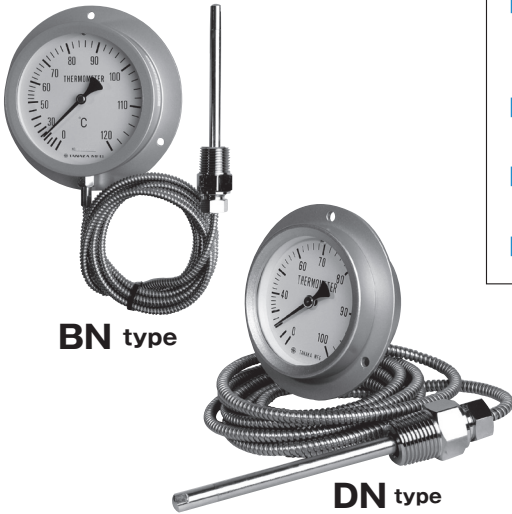
**$\phi$ 75,  $\phi$ 100**



# Steam pressure type remote indicating thermometer

## Accurate temperature measurement!

# BN/DN



- Basically it is the same as mercury pressure thermometer. Instead of mercury, nonpoisonous organic liquid or liquid gas is used as a thermo-sensitive liquid.
- A logarithmic curve is created, and a scale is gradually expanded at a high-order temperature rather than at a low-order temperature.
- Since we use our unique two-fluid system, a intermediate conduit is hardly affected by outside air temperature. Temperature indication is very accurate.
- An intermediate conduit is protected by an SUS304 flexible tube.

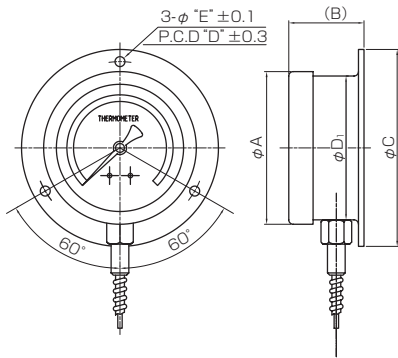
## Description

### BN - 60 - AG - 050 - 2 - R1/2 -

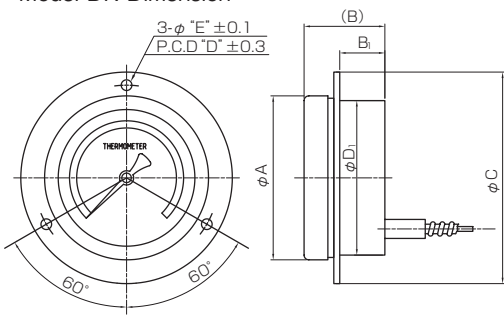
①      ②      ③      ④      ⑤      ⑥      ⑦

## Dimension

### Model BN Dimension

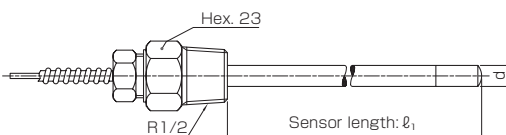


### Model DN Dimension



## Sensing tube

	d	ℓ <sub>1</sub>
Sensing tube	φ 8	100
With protection tube	φ 11	110



①	Profile	BN : Wall mount DN : Back mount
②	Size	60 : φ 60mm 75 : φ 75mm 100 : φ 100mm
③	Case type (Zincate processing)	AG : Silver/cable from bottom (BN) AH : Silver/cable from back (DN) (Available for only φ 60) CH : Black/cable from back (DN)
④	Temp. range	050 : 0 ~ 50°C 080 : 0 ~ 80°C 0100 : 0 ~ 100°C 0120 : 0 ~ 120°C 0150 : 0 ~ 150°C 0200 : 0 ~ 200°C (Only φ 75, φ 100)
⑤	Lead (cable) length	Standard length: 2m
⑥	Screw type	R1/2
⑦	Sensing tube	Unmarked : φ 8 × 100mm, Brass U : With protection tube φ 11 × 110mm (Material : SUS304)
	Accuracy	Within ± 1 increment

## Note

- Mount a thermometer vertically. Mount a sensing tube so that it is set horizontally or its bottom is set downwards.
- Mounting position is adjusted so that a sensing tube is set about 600mm below a main body.
- A big change more than 600mm in a position of a sensing tube may cause an error. If you have ± 1m difference, contact us when ordering.

## Size table

Type	Size	A	B	B <sub>1</sub>	C	D	E	D <sub>1</sub>	Weight
BN	60	69	(34)	—	89	78	4.5	65	620g
	75	85	(34)	—	105	95	4.5	80	630g
	100	110	(36)	—	136	122	5.5	106	850g
DN	60	69	(34)	19	89	78	4.5	65	620g
	75	85	(34)	20	105	95	4.5	80	630g
	100	110	(36)	21	136	122	5.5	106	850g

# Glycerin pressure gauge

# OPG

RoHS



JIS symbol

## Glycerin pressure gauge (φ39)



### Features

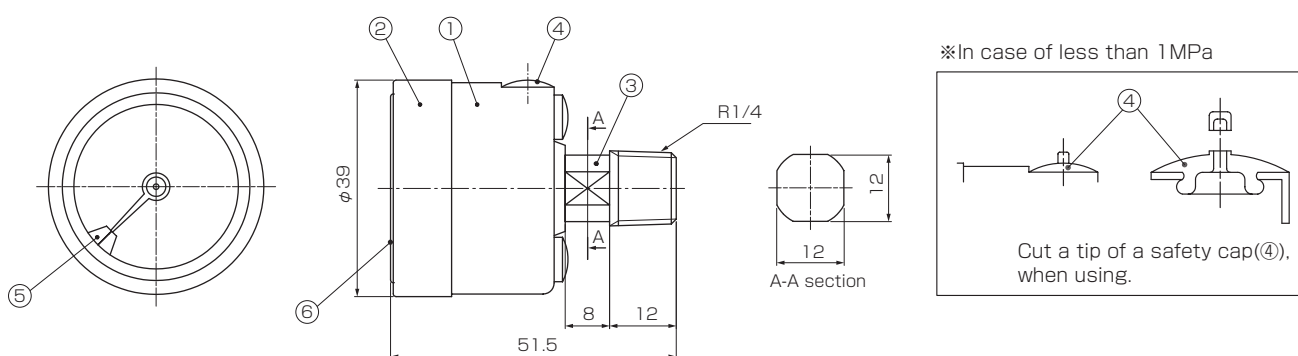
- Stainless steel case <improved corrosion resistance>
- Sealing of glycerin <improved pulsation effect>
- Safety mark provided as the standard
- Pressure scale of 270-degree angle

### Description

**OPG - DT - R1/4 - 39 × 10MPa - S**

① ② ③ ④ ⑤ ⑥

①	Name	Glycerin pressure gauge
②	Profile	Center back mount Socket type : Square
③	Screw type	R1/4 (PT)
④	Size	39 : φ 39 mm
⑤	Pressure range (Max. scale)	1 : 1 MPa 2.5 : 2.5MPa 4 : 4 MPa 6 : 6 MPa 10 : 10 MPa 16 : 16 MPa 25 : 25 MPa 40 : 40 MPa
⑥	SUS case	



### Parts table

No.	Parts	Material	Q'ty
1	Case	SUS304	1
2	Lid	SUS304	1
3	Socket	C3604BD	1
4	Safety cap	Silicon rubber	1
5	Safety mark	POM	2
6	Transparent front plate	PC	1

Order no.	Model
G171-107	OPG-DT-R1/4-39 × 1 MPa-S
G171-109	OPG-DT-R1/4-39 × 2.5MPa-S
G171-110	OPG-DT-R1/4-39 × 4 MPa-S
G171-111	OPG-DT-R1/4-39 × 6 MPa-S
G171-112	OPG-DT-R1/4-39 × 10 MPa-S
G171-113	OPG-DT-R1/4-39 × 16 MPa-S
G171-114	OPG-DT-R1/4-39 × 25 MPa-S
G171-115	OPG-DT-R1/4-39 × 40 MPa-S

# Glycerin pressure gauge (φ39)

## Specification

- This can be mounted directly onto a pressure port of a modular valve.
- A throttle is equipped into a socket of a gauge for absorbing pulsating pressure and surge pressure.
- Even if modular valves are stacked, gauges don't touch with each other.
- Shaking of a pointer due to mechanical vibration is absorbed by viscous drag of glycerin into a gauge. Movement of a bourdon tube is also absorbed, improving absorption effect of pulsating pressure of fluid.
- Glycerin serves as lubricating oil for a friction part of a bearing and gear in a gauge, thereby improving the durability of the internal mechanism.
- If a bourdon tube is broken, a front plate isn't shattered, because hydraulic oil is purged from a safety cap.
- You can easily set pressure range and setting value by green marks on a front plate.
- Select a pressure gauge which has pressure scale of 2 times more than your pressure range.

Fluid	Petroleum oil, Water-glycol based oil Phosphate ester oil, Water
Accuracy	± 3% / F.S.
Temp. range	- 5 ~ 40°C
Liquid	Glycerin 100%
Vibration range	0 ~ 7 G
Weight	110g
Optional spec	<ul style="list-style-type: none"> <li>● Color scale</li> <li>● Optional special scale</li> </ul>

## How to use safety marks

- For setting pressure range

Set 2 safety marks on upper limit (Right) and lower limit (Left) of your pressure range.



- For setting pressure value

Set 2 safety marks on right and left together like an arrow form.

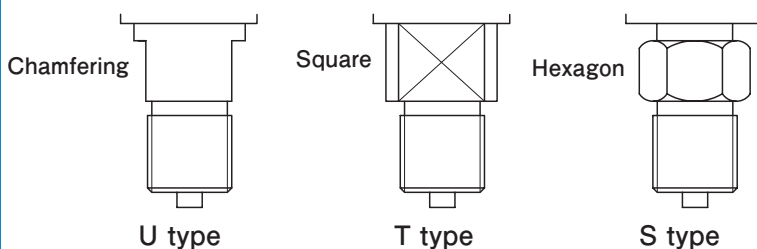


## ! Safety precaution (φ39)

- A glycerin pressure gauge should be mounted vertically. Otherwise indication error and glycerin leakage may occur.
- We do not offer a glycerin pressure gauge with a special hand-written scale.
- All safety marks are set to zero positions at our factory.
- A transparent front plate is made of polycarbonate (PC). Avoid direct contact of the plate with any organic solvent. When painting, cover with a polyethylene bag.
- Before using, remove a tip of a safety cap of a glycerin pressure gauge if your maximum pressure is less than 1MPa.
- As a pressure gauge of less than 1MPa has little torque of a bourdon tube, temperature change (internal pressure change) into the gauge will affect indication accuracy. By removing a tip of a safety cap, a balance between internal pressure and atmospheric pressure can be maintained, thereby preserving accuracy.

## Socket

Socket shape to fix a pressure gauge with a spanner  
U type : Chamfering, T type : Square, S type : Hexagon



## Screw type

Screw type		
Past		Present
Taper male screw	PT	R
Taper female screw		Rc
PF		G

※ G type on the left illustration.



# Glycerin pressure gauge (φ60, φ75, φ100)

# OPG

RoHS

※ See a water pressure product page about SUS spec.



- Shaking of a pointer due to mechanical vibration is absorbed by viscous drag of glycerin into a gauge. Movement of a bourdon tube is also absorbed, improving absorption effect of pulsating pressure of fluid.
- Glycerin serves as lubricating oil for a friction part of a bearing and gear in a gauge, thereby improving the durability of the internal mechanism.
- Even if a bourdon tube is broken, a front plate isn't shattered, because oil is purged from a safety cap.
- You can easily set pressure range and setting value by green marks on a front plate. (Only for φ60 gauge)
- Select a pressure gauge which has max pressure scale of 2 times more than your pressure range.



Measuring instrument

## Specification

Fluid	Petroleum oil, Water-glycol based oil Phosphate ester oil, Water	
Accuracy	φ60, φ75, φ100	±1.6%/F.S.
Temp. range	-5 ~ 40°C	
Indication error	±0.3% / 10°C	
Liquid	Glycerin	
Vibration range	0 ~ 7 G	
Optional spec	<ul style="list-style-type: none"> <li>● Color scale</li> <li>● Optional special scale</li> <li>● Cold climates spec (Temp. range -15 ~ 60 °C, Silicon oil spec)</li> </ul>	

## Description

### OPG - A T - G1/4 - 60 × 10MPa

①                      ②                      ③                      ④                      ⑤                      ⑥

①	Name	Glycerin pressure gauge
②	Profile	A : Frameless B : Round frame D : Back mount (With fittings)
③	Socket type	T : Square (φ60, A and B φ75) S : Hexagon (φ100) U : Chamfering (D φ75)
④	Screw type	G1/4 (φ60) R1/4 (A φ60) G3/8 (φ75, φ100)
⑤	Size	60 : φ60mm 75 : φ75mm 100 : φ100mm
⑥	Pressure range (Max. scale)	See model lists.

- ※ Contact us about a special gauge with a color scale.
- ※ Safety marks are not attached if you order a special gauge with a color scale.

## How to use safety marks (φ60)

- For setting pressure range

Set 2 safety marks on upper limit (Right) and lower limit (Left) of your pressure range.



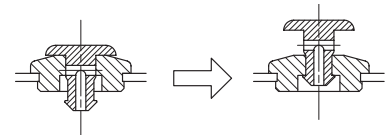
- For setting pressure value

Set 2 safety marks on right and left together like an arrow form.



## ! Safety precaution

- Some combinations of shape, size, and pressure range are not available. Please refer to model tables to select your gauge.
- A glycerin pressure gauge should be mounted vertically. Otherwise indication error and glycerin leakage may occur.
- We do not offer a glycerin pressure gauge with a special hand-written scale.
- Pull a green plug before using, if pressure range of your gauge is less than 1MPa.



- As a pressure gauge of less than 1MPa has little torque of a bourdon tube, temperature change (internal pressure change) into the gauge will affect indication accuracy. By pulling a green plug of a safety cap, a balance between internal pressure and atmospheric pressure can be maintained, thereby preserving accuracy.

# Glycerin pressure gauge

φ 60

※It takes 20~40 days to produce make-to-order (MTO) models.

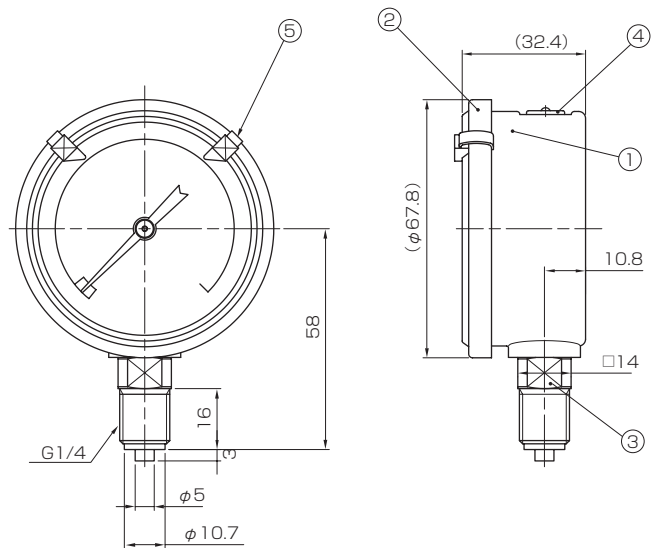
φ60 parts table

No.	Parts	Material	Q'ty
1	Case	SUS304	1
2	Lid	SUS304	1
3	Socket	C3604BD	1
4	Safety cap	Silicon rubber	1
5	Safety mark	PP/SUS304	2
6	Bracket	SPCD	1
7	Wing nut	SS400	2

## φ60 A type G1/4

Profile	Frameless	Screw type	G1/4
Socket type	Square	Weight	250g

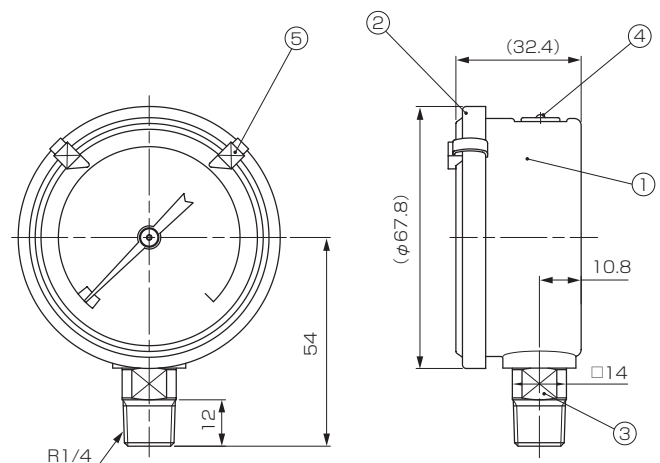
Order no.	Model	MPa	MTO
R403-504	OPG-AT-G1/4-60×	0.25MPa	
R403-506	OPG-AT-G1/4-60×	0.6 MPa	
R403-507	OPG-AT-G1/4-60×	1 MPa	
R403-508	OPG-AT-G1/4-60×	1.6 MPa	
R403-509	OPG-AT-G1/4-60×	2.5 MPa	
R403-510	OPG-AT-G1/4-60×	4 MPa	
R403-511	OPG-AT-G1/4-60×	6 MPa	
R403-512	OPG-AT-G1/4-60×	10 MPa	
R403-513	OPG-AT-G1/4-60×	16 MPa	
R403-514	OPG-AT-G1/4-60×	25 MPa	
R403-515	OPG-AT-G1/4-60×	40 MPa	
R403-516	OPG-AT-G1/4-60×	60 MPa	
R403-517	OPG-AT-G1/4-60×100	MPa	※



## φ60 A type R1/4

Profile	Frameless	Screw type	R1/4
Socket type	Square	Weight	250g

Order no.	Model	MPa	MTO
R403-604	OPG-AT-R1/4-60×	0.25MPa	※
R403-606	OPG-AT-R1/4-60×	0.6 MPa	
R403-607	OPG-AT-R1/4-60×	1 MPa	
R403-608	OPG-AT-R1/4-60×	1.6 MPa	※
R403-609	OPG-AT-R1/4-60×	2.5 MPa	
R403-610	OPG-AT-R1/4-60×	4 MPa	
R403-611	OPG-AT-R1/4-60×	6 MPa	
R403-612	OPG-AT-R1/4-60×	10 MPa	
R403-613	OPG-AT-R1/4-60×	16 MPa	
R403-614	OPG-AT-R1/4-60×	25 MPa	
R403-615	OPG-AT-R1/4-60×	40 MPa	
R403-616	OPG-AT-R1/4-60×	60 MPa	
R403-617	OPG-AT-R1/4-60×100	MPa	※



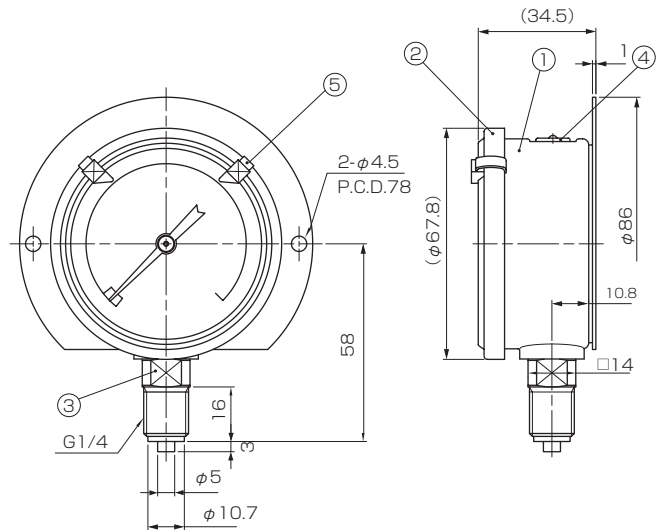
φ60 parts table

No.	Parts	Material	Q'ty
1	Case	SUS304	1
2	Lid	SUS304	1
3	Socket	C3604BD	1
4	Safety cap	Silicon rubber	1
5	Safety mark	PP/SUS304	2
6	Bracket	SPCD	1
7	Wing nut	SS400	2

### φ60 B type

Profile	Round frame	Screw type	G1/4
Socket type	Square	Weight	270g

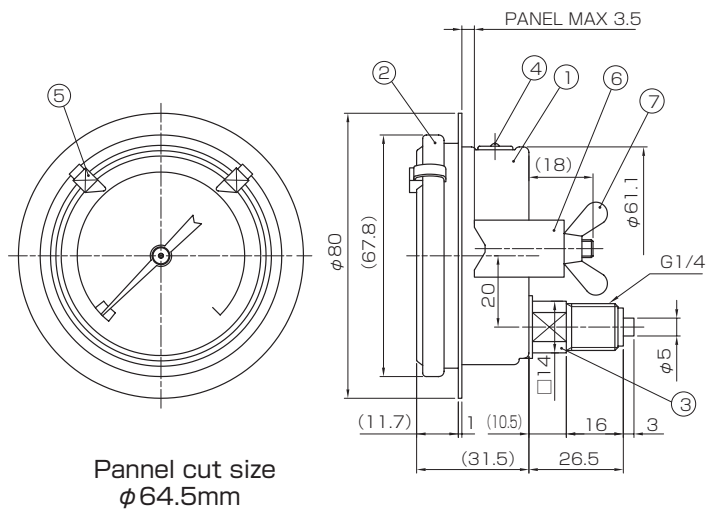
Order no.	Model	MTO
R404-504	OPG-BT-G1/4-60× 0.25MPa	※
R404-506	OPG-BT-G1/4-60× 0.6 MPa	
R404-507	OPG-BT-G1/4-60× 1 MPa	※
R404-508	OPG-BT-G1/4-60× 1.6 MPa	※
R404-509	OPG-BT-G1/4-60× 2.5 MPa	※
R404-510	OPG-BT-G1/4-60× 4 MPa	※
R404-511	OPG-BT-G1/4-60× 6 MPa	※
R404-512	OPG-BT-G1/4-60× 10 MPa	
R404-513	OPG-BT-G1/4-60× 16 MPa	
R404-514	OPG-BT-G1/4-60× 25 MPa	
R404-515	OPG-BT-G1/4-60× 40 MPa	
R404-516	OPG-BT-G1/4-60× 60 MPa	
R404-517	OPG-BT-G1/4-60×100 MPa	※



### φ60 D type

Profile	Back mount	Screw type	G1/4
Socket type	Square	Weight	310g

Order no.	Model	MTO
R417-504	OPG-DT-G1/4-60× 0.25MPa-B	※
R417-506	OPG-DT-G1/4-60× 0.6 MPa-B	
R417-507	OPG-DT-G1/4-60× 1 MPa-B	
R417-508	OPG-DT-G1/4-60× 1.6 MPa-B	※
R417-509	OPG-DT-G1/4-60× 2.5 MPa-B	
R417-510	OPG-DT-G1/4-60× 4 MPa-B	
R417-511	OPG-DT-G1/4-60× 6 MPa-B	
R417-512	OPG-DT-G1/4-60× 10 MPa-B	
R417-513	OPG-DT-G1/4-60× 16 MPa-B	
R417-514	OPG-DT-G1/4-60× 25 MPa-B	
R417-515	OPG-DT-G1/4-60× 40 MPa-B	
R417-516	OPG-DT-G1/4-60× 60 MPa-B	
R417-517	OPG-DT-G1/4-60×100 MPa-B	※



# Glycerin pressure gauge

## φ 75

※ It takes 20 ~ 40 days to produce make-to-order (MTO) models.

### φ 75 A type

Profile	Frameless	Screw type	G3/8
Socket type	Square	Weight	450g

Order no.	Model	MPa	MTO
R601-507	OPG-AT-G3/8-75×	1MPa	※
R601-510	OPG-AT-G3/8-75×	4MPa	
R601-511	OPG-AT-G3/8-75×	6MPa	
R601-512	OPG-AT-G3/8-75×	10MPa	
R601-513	OPG-AT-G3/8-75×	16MPa	
R601-514	OPG-AT-G3/8-75×	25MPa	
R601-515	OPG-AT-G3/8-75×	40MPa	
R601-516	OPG-AT-G3/8-75×	60MPa	
R601-517	OPG-AT-G3/8-75×	100MPa	※

### φ 75 B type

Profile	Round frame	Screw type	G3/8
Socket type	Square	Weight	550g

Order no.	Model	MPa	MTO
R607-507	OPG-BT-G3/8-75×	1MPa	※
R607-510	OPG-BT-G3/8-75×	4MPa	※
R607-511	OPG-BT-G3/8-75×	6MPa	
R607-512	OPG-BT-G3/8-75×	10MPa	
R607-513	OPG-BT-G3/8-75×	16MPa	
R607-514	OPG-BT-G3/8-75×	25MPa	
R607-515	OPG-BT-G3/8-75×	40MPa	
R607-516	OPG-BT-G3/8-75×	60MPa	
R607-517	OPG-BT-G3/8-75×	100MPa	※

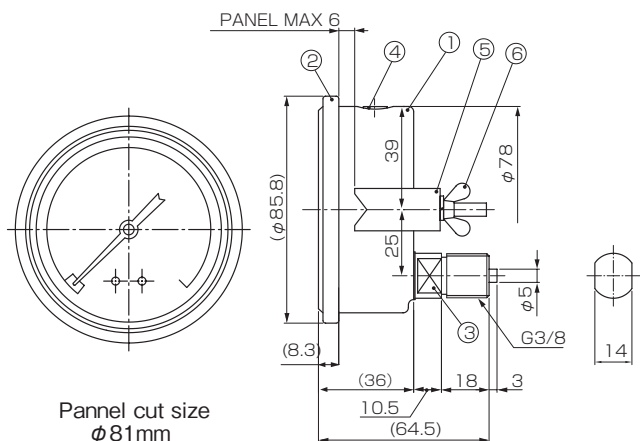
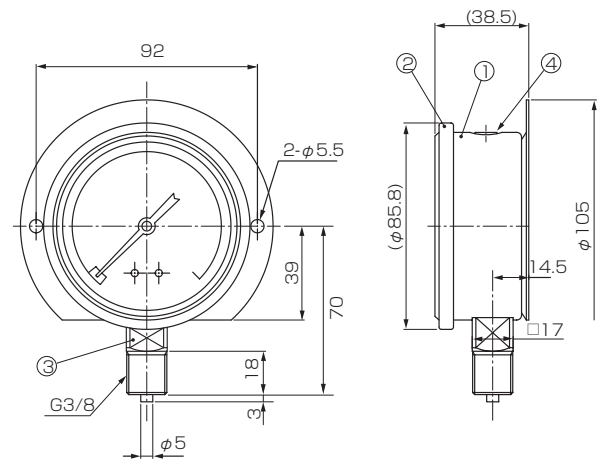
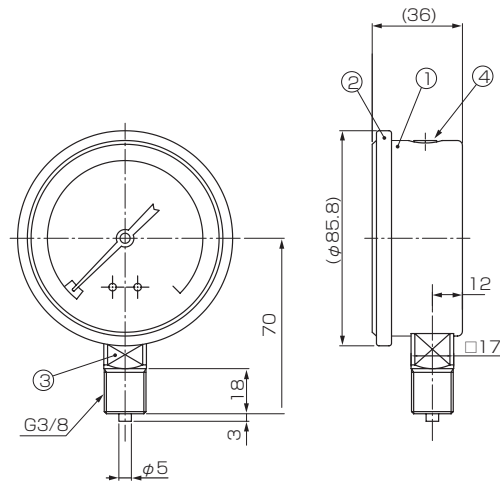
### φ 75 D type

Profile	Back mount	Screw type	G3/8
Socket type	Chamfering	Weight	550g

Order no.	Model	MPa	MTO
R610-507	OPG-DU-G3/8-75×	1MPa	※
R610-510	OPG-DU-G3/8-75×	4MPa	※
R610-511	OPG-DU-G3/8-75×	6MPa	
R610-512	OPG-DU-G3/8-75×	10MPa	
R610-513	OPG-DU-G3/8-75×	16MPa	
R610-514	OPG-DU-G3/8-75×	25MPa	
R610-515	OPG-DU-G3/8-75×	40MPa	
R610-516	OPG-DU-G3/8-75×	60MPa	
R610-517	OPG-DU-G3/8-75×	100MPa	※

### φ 75 parts table

No.	Parts	Material	Q'ty
1	Case	SUS304	1
2	Lid	SUS304	1
3	Socket	C3604BD	1
4	Safety cap	Silicon rubber	1
5	Bracket	SS400	1
6	Wing nut	SS400	2



## φ 100

※ It takes 20 ~ 40 days to produce make-to-order (MTO) models.

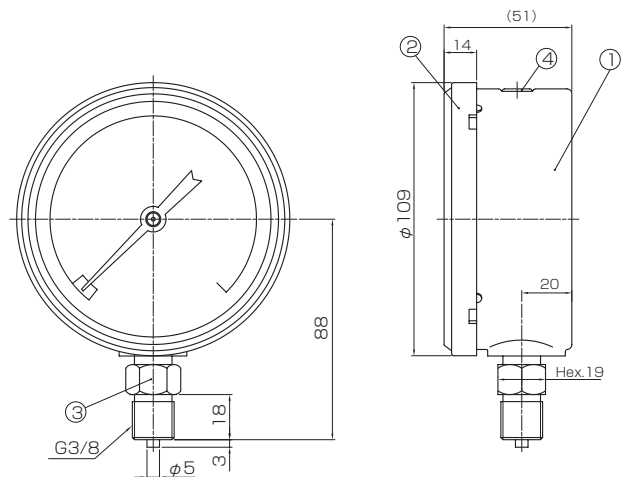
### φ 100 A type

Profile	Frameless	Screw type	G3/8
Socket type	Hexagon	Weight	840g

Order no.	Model	MTO
R801-510	OPG-AS-G3/8-100× 4MPa	※
R801-511	OPG-AS-G3/8-100× 6MPa	※
R801-512	OPG-AS-G3/8-100× 10MPa	※
R801-513	OPG-AS-G3/8-100× 16MPa	※
R801-514	OPG-AS-G3/8-100× 25MPa	※
R801-515	OPG-AS-G3/8-100× 40MPa	※
R801-516	OPG-AS-G3/8-100× 60MPa	※
R801-517	OPG-AS-G3/8-100× 100MPa	※

### φ 100 parts table

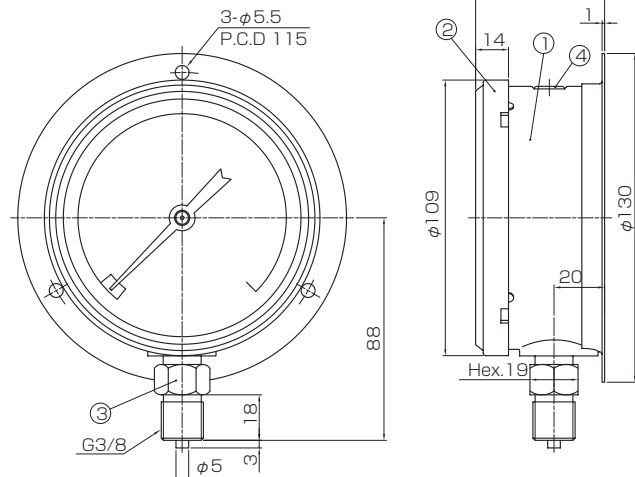
No.	Parts	Material	Q'ty
1	Case	SUS304	1
2	Cover	SUS304	1
3	Socket	SUS316	1
4	Safety cap	Silicon rubber	1
5	Bracket	SUS304	1
6	Nut	SUS304	2
7	Pannel ring	SUS304	1



### φ 100 B type

Profile	Round frame	Screw type	G3/8
Socket type	Hexagon	Weight	930g

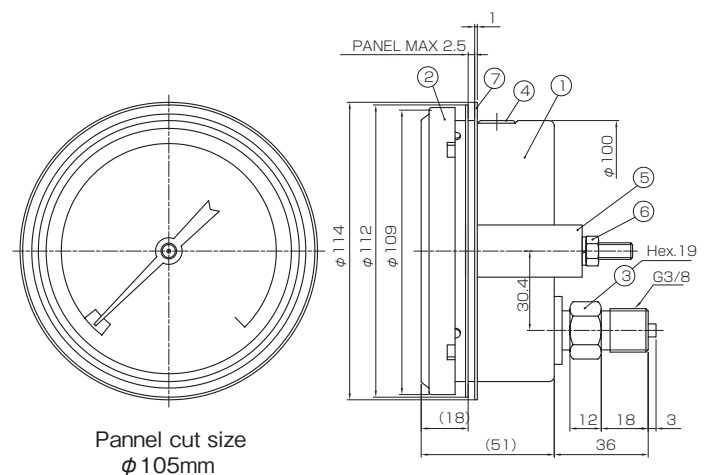
Order no.	Model	MTO
R807-510	OPG-BS-G3/8-100× 4MPa	※
R807-511	OPG-BS-G3/8-100× 6MPa	※
R807-512	OPG-BS-G3/8-100× 10MPa	※
R807-513	OPG-BS-G3/8-100× 16MPa	※
R807-514	OPG-BS-G3/8-100× 25MPa	※
R807-515	OPG-BS-G3/8-100× 40MPa	※
R807-516	OPG-BS-G3/8-100× 60MPa	※
R807-517	OPG-BS-G3/8-100× 100MPa	※



### φ 100 D type

Profile	Back mount	Screw type	G3/8
Socket type	Hexagon	Weight	1040g

Order no.	Model	MTO
R810-510	OPG-DS-G3/8-100× 4MPa	※
R810-511	OPG-DS-G3/8-100× 6MPa	※
R810-512	OPG-DS-G3/8-100× 10MPa	※
R810-513	OPG-DS-G3/8-100× 16MPa	※
R810-514	OPG-DS-G3/8-100× 25MPa	※
R810-515	OPG-DS-G3/8-100× 40MPa	※
R810-516	OPG-DS-G3/8-100× 60MPa	※
R810-517	OPG-DS-G3/8-100× 100MPa	※

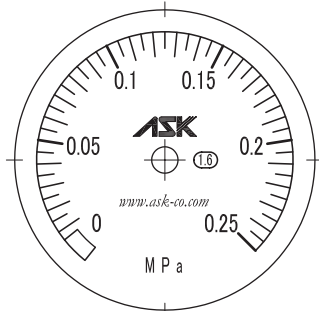


## Conversion table

bar	MPa	atm	kgf/cm <sup>2</sup>	lbf/in <sup>2</sup> (psi)	mHg	InHg	mAq (mH <sub>2</sub> O)	KPa
1	0.1	0.9869233	1.0197162	14.503729	0.750064	29.530079	10.197162	100
10	1	9.8692327	10.197162	145.03729	7.50064	295.30079	101.97162	1000
1.01325	0.101325	1	1.0332275	14.695904	0.76	29.92126	10.332275	101.325
0.980665	0.0980665	0.9678411	1	14.2233	0.7355592	28.959025	10	98.0665
0.0689476	0.0068948	0.068046	0.070307	1	0.051715	2.0360222	0.7030717	6.8948
1.33322	0.133322	1.31579	1.359506	19.336662	1	39.370079	13.59506	133.322
0.0338638	0.0033864	0.0334211	0.0345315	0.4911538	0.0254	1	0.3453145	3.3864
0.0980665	0.0098067	0.0967841	0.1	1.42233	0.0735561	2.8959105	1	9.8067

# Scale plate

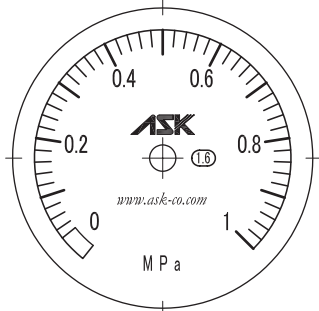
$\phi 60 / \phi 75 / \phi 100$   
(Common)



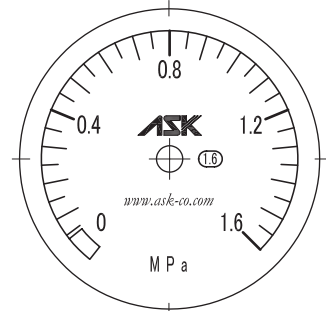
**0.25MPa**



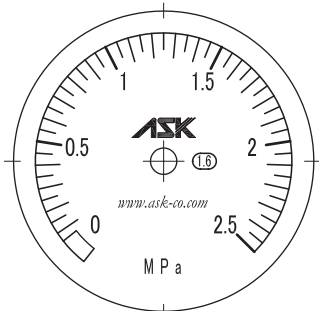
**0.6MPa**



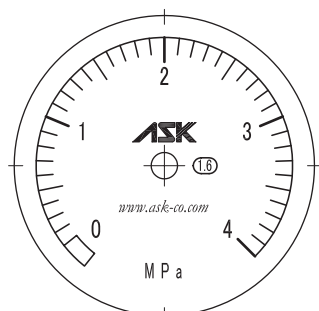
**1MPa**



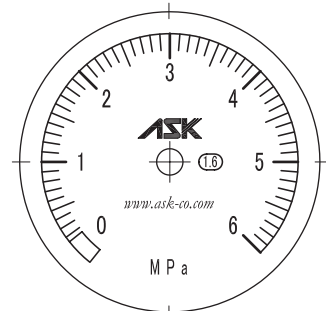
**1.6MPa**



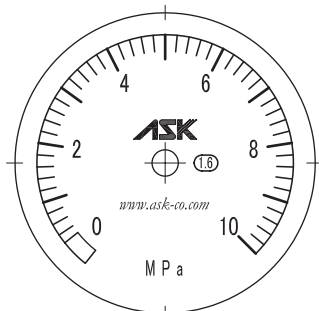
**2.5MPa**



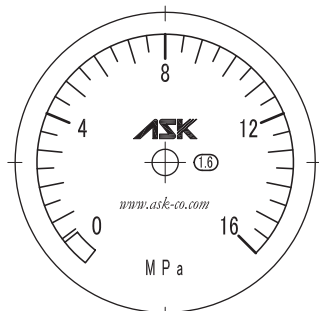
**4MPa**



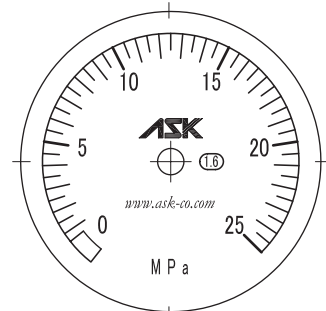
**6MPa**



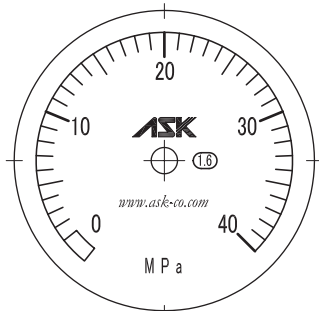
**10MPa**



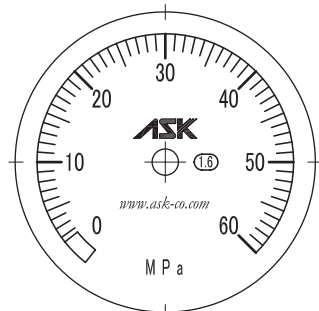
**16MPa**



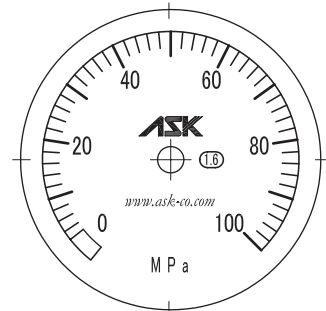
**25MPa**



**40MPa**



**60MPa**



**100MPa**



# Pressure gauge with contacts

Pressure pointer provided with a contact function!

# CEPG



- Pressure indicator, with upper and lower pressure signal setting function.
- Contact signal of AC100V, 0.5A for an alarm buzzer and lamp indication.
- Pressure pointer provided with contact, ensuring accurate pressure indication and setting.
- 3 contact types are available: upper, lower and upper/lower limit. A contact type can be modified on request.

## Specification

Contact capacity		AC100V 0.5A	
Accuracy	Indication	Within $\pm 1.6\%$ / F.S.	
	Setting	Within $\pm 2.0\%$ / F.S.	
	Repeatability	Within $\pm 1.0\%$ / F.S.	
Cut-off difference		Within $\pm 2.0\%$ / F.S.	
Weight	$\phi 75$	AU	380g
		BU	420g
		DU	320g
	$\phi 100$	AU	670g
		BU	730g
		DU	710g

## ! Safety precaution

- Use in a place subjected to mechanical vibrations may occur malfunction.
- Install a damper or a gauge valve, if there is pulsating pressure in your fluid to be measured.

## Description

**CEPG - BU - G3/8 - 75 × 1MPa - H**

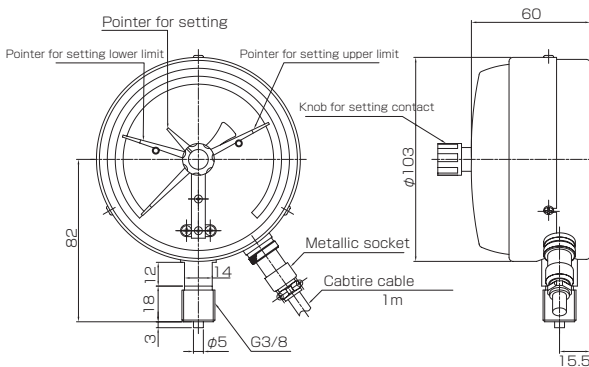
① ② ③ ④ ⑤ ⑥

Pressure range table

1	: 0 ~ 1.0MPa
2.5	: 0 ~ 2.5MPa
4	: 0 ~ 4 MPa
6	: 0 ~ 6 MPa
10	: 0 ~ 10 MPa
16	: 0 ~ 16 MPa
25	: 0 ~ 25 MPa
40	: 0 ~ 40 MPa

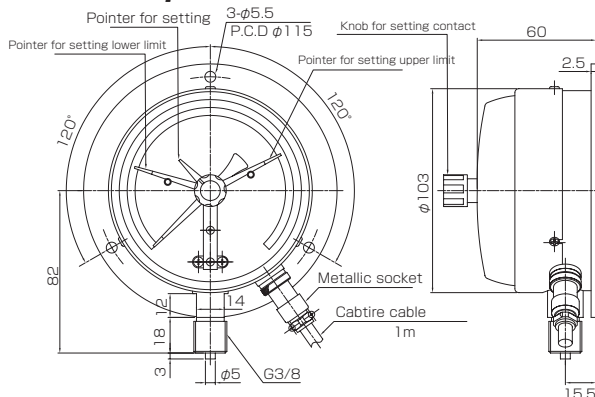
## Dimension

**AU-3/8 ×  $\phi 100$**

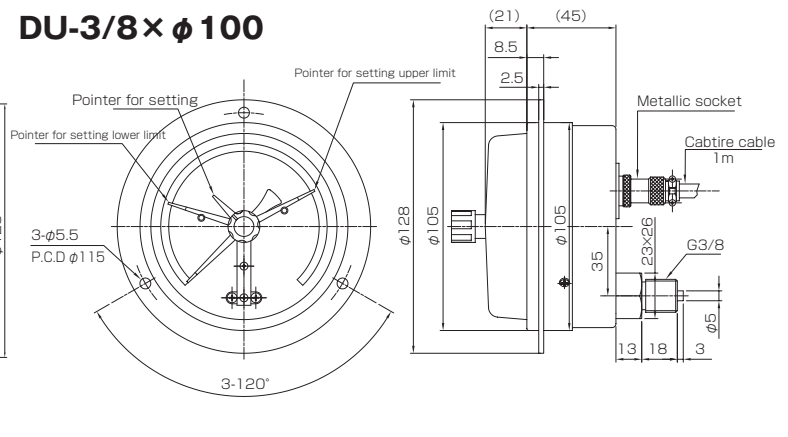


①	Name	Pressure gauge with contacts
②	Profile	AU : Frameless BU : Wall mount DU : Back mount
③	Screw type	G3/8
④	Size	75 : $\phi 75$ mm 100 : $\phi 100$ mm
⑤	Pressure range	See a pressure range table.
⑥	Contact type	H : 1 upper limit contact L : 1 lower limit contact H L : 2 limit contacts

**BU-3/8 ×  $\phi 100$**



**DU-3/8 ×  $\phi 100$**

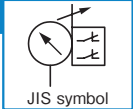




# Pressure gauge with micro-contacts

2 functions: pressure gauge and pressure switch!

# MEPG



- Pressure gauge with contacts, designed with microswitch in a indicator.
- You can measure pressure and set upper and lower limits contact signals.
- Contact signals up to 250 VAC, 5A can be connected. Well suited to direct control of a electric motor and a solenoid valve.
- 3 contact types are available: upper, lower and upper/lower limit. The contact type can be modified on request.

## Specification

Size	φ 100	
Profile	BU	DU
Contact capacity	AC125V 5A AC250V 5A	
Accuracy	Indication	Within ±1.6%/F.S.
	Setting	Within ±3.0%/F.S.
	Repeatability	Within ±1.0%/F.S.
Cut-off difference	Within ±10%/F.S.	Within ±5%/F.S.
	Weight	1500g

## ! Safety precaution

- Use in a place subjected to mechanical vibrations may occur erratic function.
- Install a damper or a gauge valve, if there is pulsating pressure in your fluid to be measured.

Measuring instrument

## Description

# MEPG - BU - G3/8 - 100 × 1MPa - H

- ①
- ②
- ③
- ④
- ⑤
- ⑥

①	Name	Pressure gauge with micro-contacts
②	Profile	BU : Wall mount DU : Back mount
③	Screw type	G3/8
④	Size	100 : φ 100mm
⑤	Pressure range	See a pressure range table.
⑥	Contact type	H : 1 upper limit contact L : 1 lower limit contact H L : 2 upper/lower limit contacts

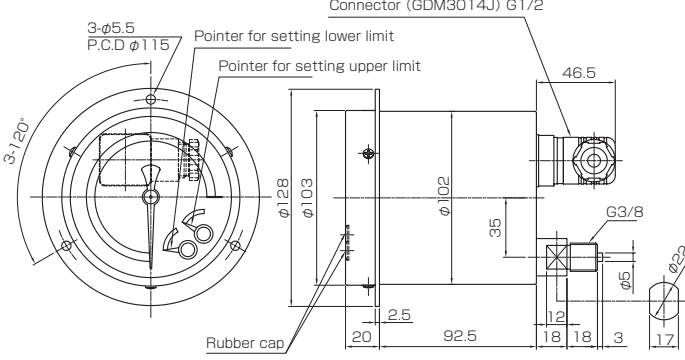
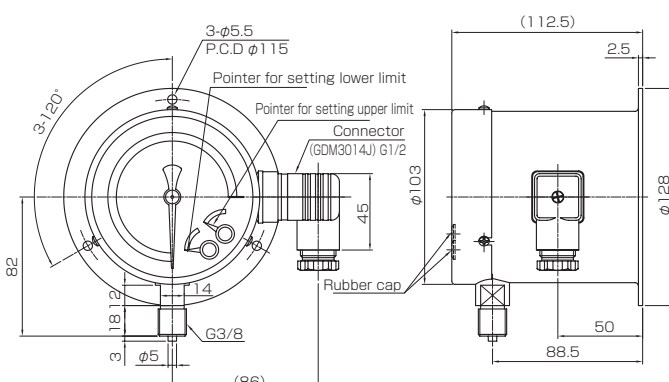
Pressure range table

1	: 0 ~ 1.0MPa
2.5	: 0 ~ 2.5MPa
4	: 0 ~ 4 MPa
6	: 0 ~ 6 MPa
10	: 0 ~ 10 MPa
16	: 0 ~ 16 MPa
25	: 0 ~ 25 MPa

## Dimension

MEPG-BU-G3/8-100 × ※ (Contact type: HL)

MEPG-DU-G3/8-100 × ※ (Contact type: HL)



# Diaphragm pressure gauge

Suitable for measuring pressure of corrosive liquids!

# SPG



- Anti-corrosive diaphragm separates a gauge from fluid to be measured. This design avoids corrosion of a bourdon tube of the gauge.
- Suitable for pressure measurement of corrosive or viscous fluids in chemical plants, food processing plants and paper mills.
- Select "Cleanable diaphragm pressure gauge" for viscous or coagulating fluids. The diaphragm can be easily cleaned. Pipe connection: in addition to a standard screw type, a flange type is also available. For details, please contact us.

## Specification

Pressure gauge accuracy	Within $\pm 1.6\%$ / F.S. ( $20^{\circ}\text{C} \pm 10^{\circ}\text{C}$ )		
Sealed liquid	Silicon oil ( $-30 \sim 80^{\circ}\text{C}$ )		
※ Weight	G3/8	Uncleanable	1650g
		Cleanable	1700g
	R3/8	Uncleanable	1750g
		Cleanable	1800g

※ Regardless of diaphragm material

## Diaphragm selection

Purpose	Fluid	Diaphragm
Corrosive fluid	Gas, chlorine, etc.	Teflon
High viscous fluid	Resin, grease, etc.	SUS
Coagulating fluid	Resin, coal tar, etc.	SUS
Fluid with solids	Fresh concrete, sludge, etc.	SUS

## Description

**SPG - A - R3/8 - 100 × 10MPa - S - K**

① ② ③ ④ ⑤ ⑥ ⑦

Pressure range table

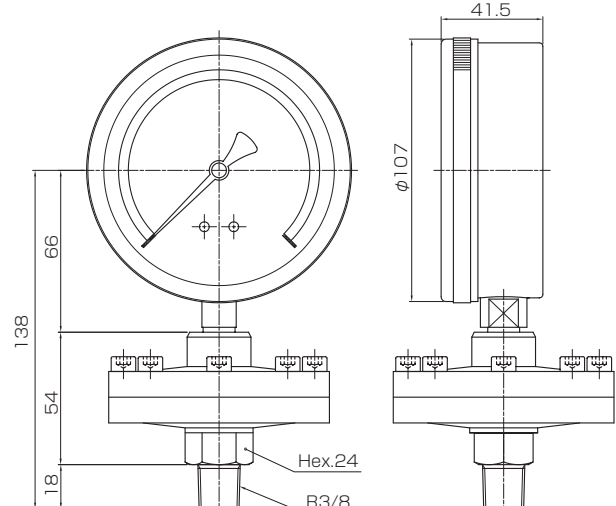
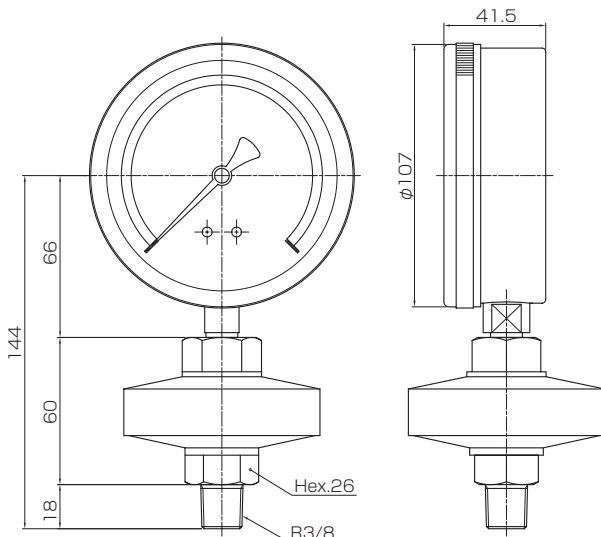
1	: 0 ~ 1.0MPa
2.5	: 0 ~ 2.5MPa
4	: 0 ~ 4 MPa
6	: 0 ~ 6 MPa
10	: 0 ~ 10 MPa
16	: 0 ~ 16 MPa
25	: 0 ~ 25 MPa
40	: 0 ~ 40 MPa

①	Name	Diaphragm pressure gauge	⑤	Pressure range	Select from pressure range table.
②	Profile	A: Frameless (Standard)	⑥	Diaphragm material	S : SUS316 (Standard) T : Teflon (Optional)
③	Screw type	G3/8 R3/8	⑦	Diaphragm type	Unmarked : Uncleanable K : Cleanable
④	Size	100 : $\phi$ 100mm			

## Dimension

SPG-A-R3/8-100 (Uncleanable type)

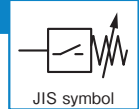
SPG-A-R3/8-100...K (Cleanable type)



# High pressure switch

Compact, miniature size, and light weight!

CE



- Outstanding stability for frequent use by a new seal.
- A long life is provided by a newly developed lever.
- Dust-proof and water-proof structure.
- Easy setting with a simple setting scale.
- Use of a screwless terminal box reduces wiring work time.
- A damper is built into this switch.

## Specification

Fluid	Petroleum oil equivalent to ISO VG32 or 46 (Ask us if you use non-flammable fluid.)
Repeatability	±2.0% F.S.
Proof pressure	CE6, CE16, CE25 50MPa CE40 80MPa CE60, CE80 120MPa
Ambient temp.	-20°C~80°C
Mechanical life	10 million times or more
Electrical life	2 million times or more
Max. frequent of use	60 times/min (Electrical rating)
Electrical rating	250VAC 3A 125VAC 5A
Wire gland dia.	G1/2
Weight	550g (Only CE60 and CE80: 590g)

## Description

### CE 6

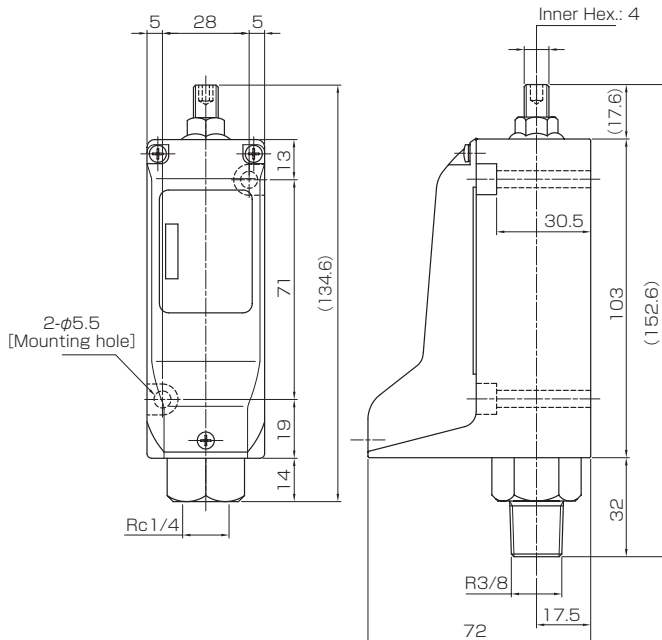
① ②

①	Name	High pressure switch (Piston type)
②	Pressure range	6 : 1 ~ 6 MPa Screw type: Rc1/4 16 : 2 ~ 16 MPa Screw type: Rc1/4 25 : 3 ~ 25 MPa Screw type: Rc1/4 40 : 4 ~ 40 MPa Screw type: Rc1/4 60 : 6 ~ 60 MPa Screw type: male R3/8 80 : 8 ~ 80 MPa Screw type: male R3/8

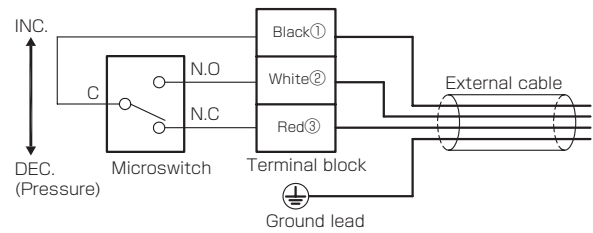
## Dimension

CE6~40

CE60, 80

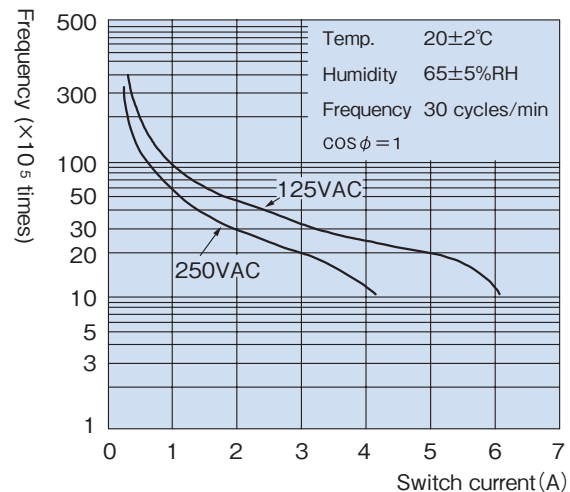


## How to wire



\* There is a wiring position of a ground wire on a PCB. Wire with a crimped terminal.

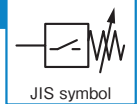
## Electrical life curve



# Pressure switch

High accuracy and durability!

# BP-F8



### Microswitch rating

AC	125V 250V	7.5A
DC	125V	

- You can easily change setting value by using a internal setting knob.
- A differential changer and setting changer are designed as separate units, by our patent. A change of setting does not affect a differential value.
- Unique mechanism with a special bourdon tube and a high accuracy microswitch. A wide range ON-OFF control is available without error.

## Specification

Fluid	Petroleum oil, Air, Gas, Water
Pressure range	0 ~ 50MPa
Pressure setting range	Upper limit: 0.01~50MPa Lower limit: 0.005~48MPa
Screw type	Standard: male G1/2 or female Rc1/4
Setting accuracy	Within $\pm 2.0\%$ of full scale
Ambient temp.	-20 ~ 60°C
Fluid temp.	-20 ~ 70°C
Internal pressure pulsation	Within about 50% of differential
Vibration	Top/Bottom: 2G, Front/Back: 2G, Left/Right: 0.8G
Electrical life	1 million times or more
Mechanical life	1 million times or more
Weight	1600g

## Description

**BP-F8 - 10C**

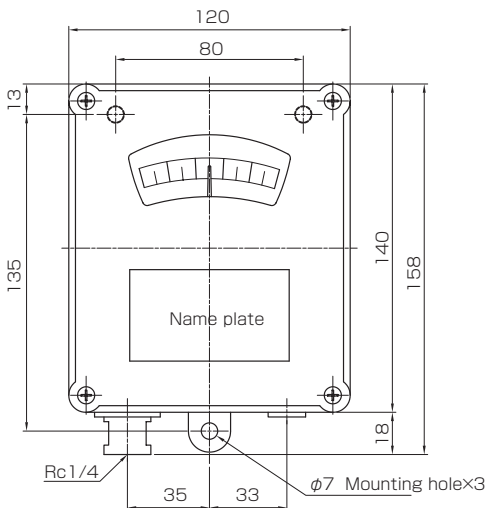
①

②

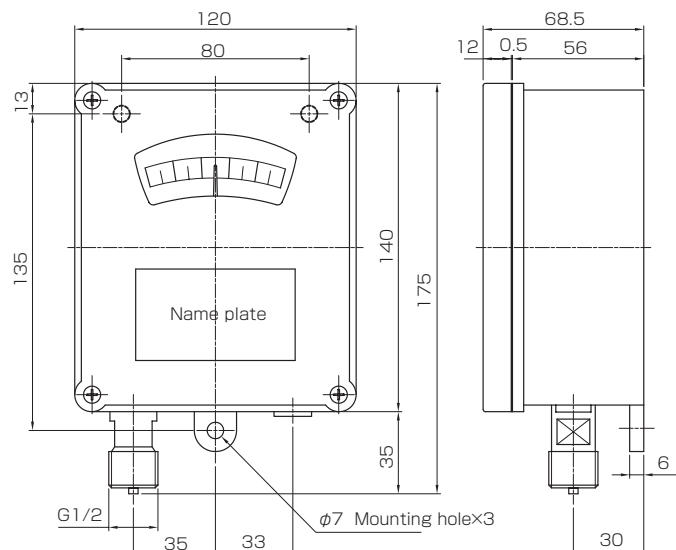
①	Name	Pressure switch (Bourdon tube type)	
②	Pressure setting range	Pressure range (MPa)	Differential setting range (MPa)
		1A : 0 ~ 0.1	0.003 ~ 0.004MPa
		10C : 0 ~ 1	0.037 ~ 0.080MPa
		50C : 0 ~ 5	0.280 ~ 0.500MPa
		100C : 0 ~ 10	0.70 ~ 1.50MPa
		150C : 0 ~ 15	0.70 ~ 1.75MPa
		250C : 0 ~ 25	1.00 ~ 3.00MPa
		500C : 0 ~ 50	2.10 ~ 5.88MPa

## Dimension

### BP-F8-1A ~ 50C



### BP-F8-100C ~ 500C





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**NANDEE INTER-TRADE CO., LTD.**

314, 316, 318, 320, 322 ซอยจันทน์ 32 ถนนจันทน์ แขวงทุ่งวัดดอน เขตสาทร กทม. 10120  
Tel : 0-2675-8230 (Auto), 0-2675-8240 (Auto) Fax : 0-2212-1448, 0-2213-0360

LINE : @nandeeintertrade

f : nandeeintertrade

✉ : info@nandee.co.th

🌐 : www.nandee.co.th

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