

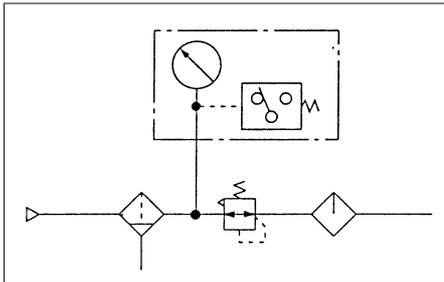
# Pressure Gauge with Switch

## Series GP46



- A pressure switch function has been added to the gauge.
- The pressure switch is equipped with a light for verifying operation.
- The pressure gauge is equipped with a limit indicator.
- To be used for verifying the supply pressure.

### Circuit Example



- Be sure to read the precautions for selection and mounting.

### Standard Specifications

Model		GP46	
Gauge	Type	Back side thread	
	Ambient and fluid temperature	-5 to 60C (No freezing)	
	Indicated pressure rang	0 to 1.0 MPa	
	Port size <sup>(1)</sup>	R 1/8, 1/4 (Option M: with M5 female thread)	
	Fluid <sup>(2)</sup>	Air	
Pressure switch	Indication precision	0.03 MPa	
	Setting range <sup>(3) (4)</sup>	0.1 to 0.8 MPa	
	Hysteresis	0.07 MPa	
	Pointer error <sup>(5)</sup>	0.05 MPa (5 to 40C) 0.08 MPa (-5 to 60C) No freezing	
	Contact	With light: 1a (Normally open) Without light: 1ab (Normally open/ Normally closed)	
	Wiring	Lead wire (Length: 300 mm)	
	Indicator light	AC	Neon light
		DC	Light emitting diode (LED)
Clear cover		Part no.: G46-00-00-3	
Attachment: With cover ring assembly		C Part no.: 1305104-4A	
Mass (kg)		0.12	

Note 1) When mounting a pressure gauge, use caution not to tighten excessively. Excessive tightening will cause product to be damaged. Use a pipe tape for sealing. Recommended tightening torque: R 1/8: Set between 7 and 9 N·m, R 1/4: 12 and 14 N·m respectively.

Note 2) Water is not an acceptable fluid. When using the other fluids, please consult with SMC for compatibility information concerning corrosion.

Note 3) Set value of pressure switch is indicated by pointer (green). It is the point where the circuit between N.O. (white) and COM (black) is turned off during pressure decrease. To set the value, turn needle in clockwise position to the correct value. When setting; if desired set position has been passed, turn needle in a counterclockwise direction back again beyond the desired value and then once again return needle in a clockwise direction stopping at the desired value. Value must be set while needle is traveling in a clockwise direction.

Note 4) Make sure to provide a minimum difference of 0.1 MPa between the set pressure and the operating pressure (including the pressure drop). If the difference is smaller, it could lead to improper operation. Refer to page 662 for details on how to set the setting needle. Use caution: Operating pressure should be the sum of the pressure of the setting needle error (0.05 MPa), the hysteresis (0.07 MPa), and the display accuracy (0.05 MPa) on the set pressure value, or the circuit between N.O. (white) and COM (black) may not turn ON while pressure is increasing.

Note 5) Maximum error value: Add the pressure gauge indicator error of 0.03 MPa to the setting needle error.

### Model (Standard)

Other versions of this unit can be made on a made-to-order basis. Please consult with SMC for details, as delivery times may be extended.

Model	Pressure range <sup>(1)</sup>		Indication unit	Connection thread	Note
	MPa				
GP46-10-01 to 02	0 to 1.0		MPa	R 1/8 R 1/4	—
GP46-10-01 to 02L2					
GP46-10-01 to 02L5					

Note 1) Do not apply pressure more than the maximum display pressure. This will cause a malfunction.

### Model (Made to Order)

Other versions of this unit can be made on a made-to-order basis. Please consult with SMC for details, as delivery times may be extended.

Model	Pressure range <sup>(1)</sup>		Indication unit	Connection thread	Note
	MPa	psi			
GP46-10-01 to 02-X201	0 to 1.0		MPa	R 1/8 R 1/4	Lead wire length 3 m
GP46-10-01 to 02L2-X201					
GP46-10-01 to 02L5-X201					
GP46-P10-01 to 02-X30	0 to 1.0		MPa, psi	R 1/8 R 1/4	—
GP46-P10-01 to 02L2-X30					
GP46-P10-01 to 02L5-X30					

Note 1) Do not apply pressure more than the maximum display pressure. This will cause a malfunction.

### Micro-switch Rated Voltage

Load	Load resistant		
Rated voltage	30 VDC	125 VAC	250 VAC
Operating current range	0.01 to 0.5 A	0.01 to 0.3 A	0.01 to 0.2 A

## How to Order

**GP 46 - 10 - 01** [ ] [ ] [ ] [ ]

**Pressure gauge with switch**

**Size**

Symbol	Outside diameter
<b>46</b>	ø42.5

**Max. display pressure**

Symbol	Unit
<b>10</b>	1.0 MPa
<b>P10</b>	1.0 MPa, 140 psi

Note) Indicate X30 for special specifications when displaying "P10."

**Connection thread**

Symbol	Size
<b>01</b>	R 1/8
<b>02</b>	R 1/4

**Option**

Symbol	Specifications
<b>Nil</b>	—
<b>M</b>	With M5 (Female thread)

**Option**

Symbol	Specifications
<b>Nil</b>	—
<b>X30</b>	Both MPa and psi
<b>X201</b>	Lead wire length 3 m

Note) X3 (Wetted parts stainless steel) specification is not available.

**Attachment**

Symbol	Specifications
<b>Nil</b>	Without cover ring assembly
<b>C</b>	Clear cover has no protrusion. (Clear cover is irremovable.)

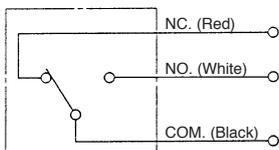
Note) Option C1 (Clear cover has protrusion. (Clear cover is removable.) is not compliant.

**Indicator light**

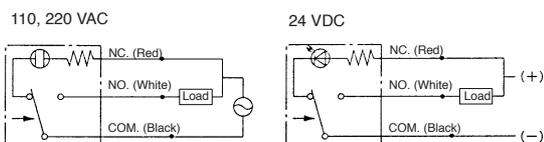
Symbol	Specifications
<b>Nil</b>	Without indicator light
<b>L2</b>	Neon light (100 VAC/220 VAC)
<b>L5</b>	LED/24 VDC

### Circuit Diagram

#### Without indicator light



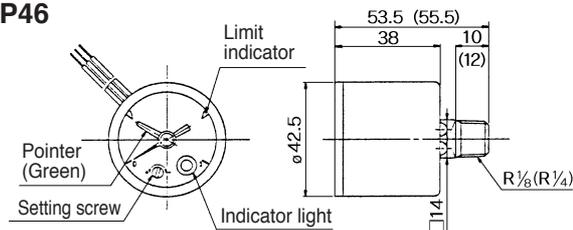
#### With indicator light



The arrow in the diagram indicates the direction of the pressure increase. The light turns OFF when the pressure becomes higher than the set pressure and turns ON when the pressure becomes lower than the set pressure.

### Dimensions

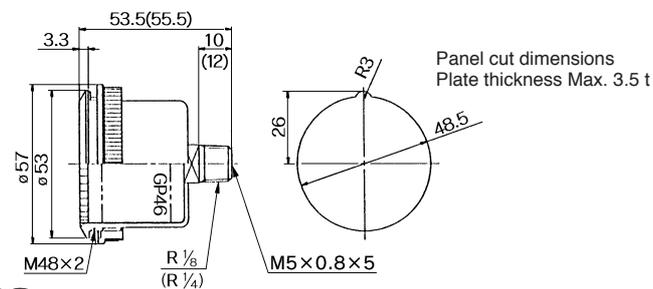
#### GP46



( ): R 1/4

#### GP46: With cover ring assembly (For panel mounting)

Clear cover is not removable.



Refer to page 662 for mounting method.