



Instruction Manual

Pressure Gauge with Colour Zone Limit Indicator

G36-L / G46-L Series



The intended use of the pressure gauge is to measure the internal pressure of a vessel or system. The adjustable red and green zone indicators help the user by improving visibility of the control range.

1 Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of “Caution,” “Warning” or “Danger.” They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC) ⁽¹⁾, and other safety regulations.

⁽¹⁾ ISO 4414: Pneumatic fluid power - General rules relating to systems.
ISO 4413: Hydraulic fluid power - General rules relating to systems.
IEC 60204-1: Safety of machinery - Electrical equipment of machines. (Part 1: General requirements)
ISO 10218-1: Manipulating industrial robots -Safety. etc.

- Refer to product catalogue, Operation Manual and Handling Precautions for SMC Products for additional information.
- Keep this manual in a safe place for future reference.

	Caution	Caution indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.
	Warning	Warning indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.
	Danger	Danger indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

Warning

- Always ensure compliance with relevant safety laws and standards.
- All work must be carried out in a safe manner by a qualified person in compliance with applicable national regulations.

2 Specifications

2.1 Standard Specifications

Model	G36-L	G46-L
Type	Back side thread	
Port size ^{Note 1)}	R 1/8	R 1/8, R 1/4
Fluid ^{Note 2) Note 3)}	Air	
Indication precision ^{Note 4)}	±3%F.S. (Full span)	
Material	Case (Surface treatment)	Stainless steel (Black melamine painted)
	Clear cover	Polycarbonate(G36-00-00-3) Polycarbonate (G46-00-00-3) Nylon (G36-00-00-3N) Nylon (G46-00-00-3N)
	Stud	Brass
	Bourdon tube	Brass
Weight (kg)	0.04	0.05
Max operating frequency	5 cycles / sec	
Air quality required	5 µm or smaller	
Attachment: With cover ring assembly	C	Part no.: 1305104-1A
	C ₁	Part no.: 1305104-3A

Table 1

2 Specifications - continued

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.

Note 2) When using other fluids, please consult with SMC for fluid compatibility information concerning corrosive potential.

Note 3) Avoid freezing as this may cause a malfunction.

Note 4) The guaranteed temperature range is 23°C ±5 °C.

2.2 Model Specifications (Standard)

Model	Pressure range MPa ^{Note 1)}	Green zone setting range MPa		Indication unit	Connection thread
		Minimum	Maximum		
G36-2-01-L□	0 to 0.2	0.01	0.1	MPa	R 1/8
G36-4-01-L□	0 to 0.4	0.02	0.2		
G36-10-01-L□	0 to 1.0	0.05	0.5		
G46-2-01 to 02-L□	0 to 0.2	0.01	0.1	MPa	R1/8 R1/4
G46-4-01 to 02-L□	0 to 0.4	0.02	0.2		
G46-10-01 to 02-L□	0 to 1.0	0.05	0.5		

Table 2

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

2.3 Model Specifications (Made to Order)

Model	Pressure range MPa (psi) ^{Note 1)}	Green zone setting range MPa (psi)		Indication unit	Connection thread
		Minimum	Maximum		
G36-P2-01-L□-X30	0 to 0.2 (0 to 30)	0.01 (2)	0.1 (14)	MPa psi	R 1/8
G36-P4-01-L□-X30	0 to 0.4 (0 to 60)	0.02 (4)	0.2 (28)		
G36-P10-01-L□-X30	0 to 1.0 (0 to 150)	0.05 (10)	0.5 (70)		
G46-P2-01 to 02-L□-X30	0 to 0.2 (0 to 30)	0.01 (2)	0.1 (14)	MPa psi	R1/8 R1/4
G46-P4-01 to 02-L□-X30	0 to 0.4 (0 to 60)	0.02 (4)	0.2 (28)		
G46-P10-01 to 02-L□-X30	0 to 1.0 (0 to 150)	0.05 (10)	0.5 (70)		

Table 3

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

Note 2) Under the New Measurement Law, products for overseas use only (SI unit type for use in Japan).

3 Installation

3.1 Installation

Warning

- Do not install the product unless the safety instructions have been read and understood.

3.1.1 Selection

- Make sure that no direct impact or vibrations are applied to the body.
- If operating under pressure pulsations or in high frequency operations, please contact SMC.

3.1.2 Mounting

- During transport and installation, do not apply shock to the product, such as by dropping doing so will affect its precision.
- For the installation posture, place it perpendicular to the ground, with the zero point on the reading of a pressure gauge facing down.
- Do not install it in an area that is exposed to high temperature or humidity, because doing so will lead to improper operation.
- To screw in the pressure gauge, make sure to turn the gauge by placing a wrench over the square wrench flats. If the pressure gauge is screwed in by holding it on some other area, air leakage or damage may result.
- Recommended tightening torque: R 1/8: set between 7 to 9 N.m, R1/4: 12 to 14 N.m respectively.

3 Installation - continued

3.2 Environment

Warning

- Do not use in an environment where corrosive gases, chemicals, salt water or steam are present.
- Do not use in an explosive atmosphere.
- Do not expose to direct sunlight. Use a suitable protective cover.
- Do not install in a location subject to vibration or impact in excess of the product's specifications.
- Do not mount in a location exposed to radiant heat that would result in temperatures in excess of the product's specifications.

3.3 Piping

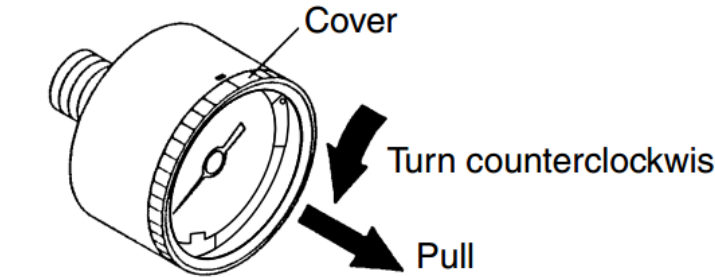
Caution

- Before piping make sure to clean up chips, cutting oil, dust etc.
- When installing piping or fittings, ensure sealant material does not enter inside the port. When using seal tape, leave 1 thread exposed on the end of the pipe/fitting.

4 Settings

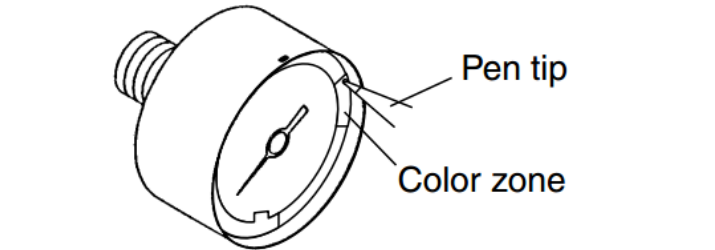
4.1 Procedure for Setting the Limit Gauge Indicator

- Before setting the colour zone (red), turn the cover counter clockwise (approximately 6 to 7 mm) until it stops. Then remove by pulling it towards you.

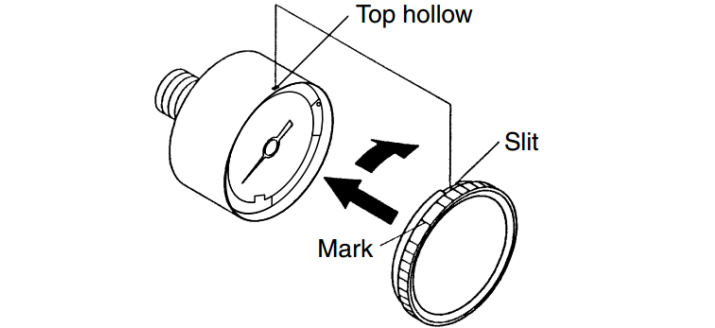


- Use a pen tip to set the colour zone (red). Be careful not to bend the

other needle or damage the dial plate.

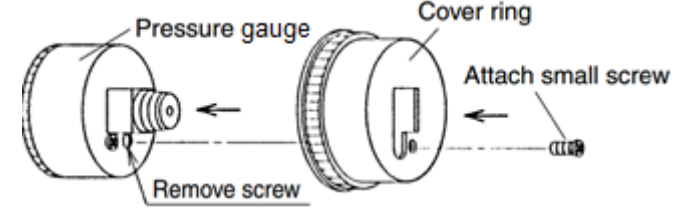


- After completing the setting, replace the cover. Fit the cover by aligning the cut-out in the cover to the groove on the top of the black case. Turn the cover clockwise (approximately 6 to 7 mm) until it stops. Make sure that the matching mark on the cover is aligned with the groove on the top of the case.



4 Settings - continued

4.2 Procedure for Assembling the Cover Ring Assembly



- Remove the small screw (1 position) from the pressure gauge.
- Place the cover ring on the pressure gauge.
- Using the small screw that is provided with the cover ring, install the cover ring. The installation torque is 0.3 to 0.5 N.m.

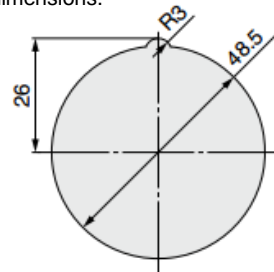
5 How to Order

Refer to catalogue for 'How to Order'.

6 Outline Dimensions (mm)

Refer to catalogue for outline dimensions.

Panel fitting dimensions for Type C and Type C2
Plate thickness Max. 3.5 t



7 Maintenance

7.1 General Maintenance

Caution

- Not following proper maintenance procedures could cause the product to malfunction and lead to equipment damage.

- If handled improperly, compressed air can be dangerous.
- Maintenance of pneumatic systems should be performed only by qualified personnel.
- Before performing maintenance, turn off the power supply and be sure to cut off the supply pressure. Confirm that the air is released to atmosphere.
- After installation and maintenance, apply operating pressure and power to the equipment and perform appropriate functional and leakage tests to make sure the equipment is installed correctly.
- If any electrical connections are disturbed during maintenance, ensure they are reconnected correctly, and safety checks are carried out as required to ensure continued compliance with applicable national regulations.
- Do not make any modification to the product
- Do not disassemble the product, unless required by installation or maintenance instructions.

8 Limitations of Use

8.1 Limited warranty and Disclaimer/Compliance Requirements

Refer to Handling Precautions for SMC Products.

9 Product disposal

This product should not be disposed of as municipal waste. Check your local regulations and guidelines to dispose this product correctly, in order to reduce the impact on human health and the environment.

10 Contacts

Refer to www.smcworld.com or www.smc.eu for contacts.

SMC Corporation

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Specifications are subject to change without prior notice from the manufacturer.
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