Pressure Gauge for General Purpose G15/G27 Series (ROHS)



· Be sure to read the precautions on page 890 for selection and mounting

Standard Specifications

Model		G15	G27	
Туре		Back side thread		
Port size	(1)	R ¹ / ₈ : M5 (Female thread)	R 1/16	
Fluid (2) (3)		Α	ir	
Indicatio	n precision (4)	±5% F.S. (Full span)		
	Case (Surface treatment)	Zinc die-casted (Black graphite coated)		
Material	Clear cover	Polycarbonate		
Stud (Surface treatment)		Zinc die-casted (Black graphite coated)		
	Bourdon tube	Brass		
Weight ((g)	0.01 0.015		

· Caution on handling: When drain or oil, etc. gets into the gauge, it may result in a malfunction.

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) Water cannot be used as an operating fluid. Because the clearance gap of the air passage of the Bourdon tube is very small. Water will block the gap and cause a malfunction. Similarly, when using other fluids, please consult with SMC for fluid compatibility information concerning possible corrosion and response delay, etc.

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

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

Model (Standard)

Model	Pressure range (1)	Indication	O and a thread	
Model	MPa	unit	Connection thread	
G15-10-01	0 to 1.0	MPa	R 1/8, M5 (Female thread)	
G27-10-R1	0 to 1.0	MPa	R 1/16	

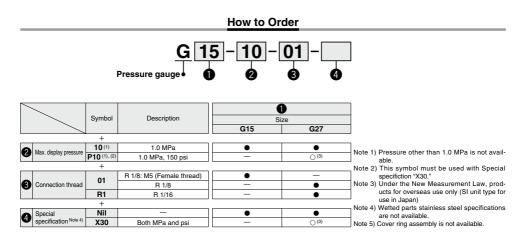
Note 1) Do not apply more excessive pressure than max. pressure display. It will be a cause of malfunction.

Model (Made to Order) Other versions of this unit can be made on a Made-to-Order basis.

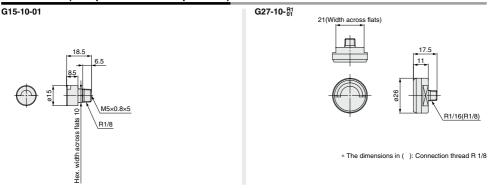
MODEI (Made to Order) Please consult with SMC for details, as delivery times may be extended.						
Model	Pressure range (1)		Indication	Consection thread		
woder	MPa	psi	unit	Connection thread		
G27-10-M5	0 to 1.0	—	MPa	M5 (Female thread)		
G27-P10-B1-X30 ⁽²⁾	0 to 1.0	0 to 150	MPa, psi	B 1/16		

Note 1) Do not apply more excessive pressure than max. pressure display. It will be a cause of malfunction. Note 2) Under the New Measurement Law, products for overseas use only (SI unit type for use in Japan)

Pressure Gauge for General Purpose G15/G27 Series



Dimensions (Except Made-to-Order products)





Pressure Gauge for General Purpose/ With Limit Indicator G36/GA36 Series RoHS



G36-10-01

• Be sure to read the precautions on page 890 for selection and mounting.

Standard	Specifications
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	Model	G36	GA36	
Туре		Back side thread	Vertical side thread	
Port size (1)	R ¹ / ₈ (Option M: With M5 female thread)	R 1⁄8	
Fluid (2) (4)		A	ir	
Indication	precision (5)	±3% F.S.	(Full span)	
	Case (Surface treatment)	Rolled steel (Electrodeposition coating black)	Stainless steel (Black melamine painted)	
Material	Clear cover (3)	Polycarbonate (Part no.: G36-00-00-4)	Polycarbonate (Part no.: G36-00-00-3)	
	Stud (Surface treatment)	Aluminum die-casted (Black disulfide molybdenum coat treated) Brass		
	Bourdon tube	Brass		
Weight (kg	1)	0.04	0.05	

Note 1) When installing a pressure gauge, be careful not to fasten too tight. Excessive tightening will result in damage. Use a pipe tape for sealing.

Note 2) Not applicable to water as fluid because its stub is made from aluminum die-casted. Water may cause corrosion and block the air passage.

Note 3) Clear cover: G36-00-00-4 is not compatible with G36-00-00-3.

Note 4) Avoid freezing as this may cause a malfunction.

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

Model (Standard)

Madal	Pressure range (1)	Indication	Connection	Note
Model	MPa	'a unit		Note
G36-2-01	0 to 0.2			
G36-4-01	0 to 0.4			
G36-7-01	0 to 0.7	MPa	R ¹ /8	—
G36-10-01	0 to 1.0			
GA36-10-01	0 to 1.0			

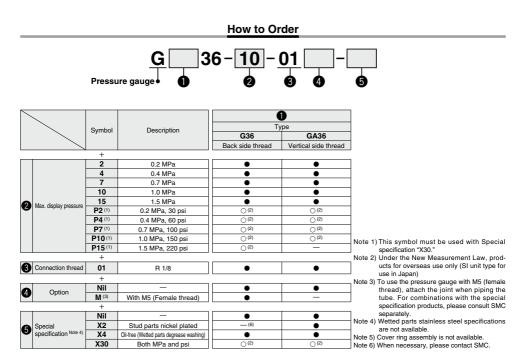
Note 1) Do not apply pressure more than the maximum display pressure. This will cause a malfunction.

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.

, , , , , , , , , , , , , , , , , , , ,					
	Pressure range (1)		Indication	Connection	Note
Model	MPa	psi	unit	thread	Note
G36-P2-01-X30 ⁽²⁾	0 to 0.2	0 to 30	MPa, psi		
G36-P10-01-X30 ⁽²⁾	0 to 1.0	0 to 150	ivira, psi	R ¹ /8	—
G36-15-01	0 to 1.5	—	MPa		

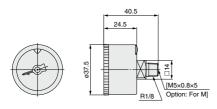
Note 1) Do not apply pressure more than the maximum display pressure. This will cause a malfunction. Note 2) Under the New Measurement Law, products for overseas use only (SI unit type for use in Japan).

Pressure Gauge for General Purpose/With Limit Indicator G36/GA36 Series

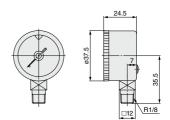


Dimensions

G36-□□-01(M)



GA36-□□-01





Pressure Gauge for General Purpose/ With Limit Indicator G46/GA46 Series ROHS

Standard Specifications





· Be sure to read the precautions on page 890 for selection and mounting.

otaniaart	a obco	incations		
Model			G46	GA46
Туре			Back side thread	Vertical side thread
Port size (1)		R 1/8, R 1/4 (Option M:	with M5 female thread)
Fluid ⁽²⁾⁽⁴⁾			Ai	r
Indication	precisio	n ⁽⁵⁾	±3% F.S. (I	Full span)
	Case (Surface treatment)		Rolled steel (Electrodeposition coating black)	Stainless steel (Black melamine painted)
Material	Clear cover (3)		Polycarbonate Part no.: G46-00-00-4	Polycarbonate Part no.: G46-00-00-3
Stud (Surfac		ce treatment)	Aluminum die-casted (Black disulfide molybdenum coated)	Brass
	Bourd	on tube	Brass	
Weight (kg	1)		0.05	0.075
Attachment: C With cover ring assembly C2		С	Part no.: 1305104-1A	
		C2	Part no.: 1305104-9A	

Note 1) When mounting a pressure gauge, use caution not to tighten excessively. Excessive tightening will cause

Note in Yorkin Mouling a pressure gauge, see Cauton for to upinen excessively. Excessive upinening will cause product to be damaged. Use a pile tape for sealing. Note 2) Not applicable to water as fluid because its stub is made from aluminum die-casting. Water may cause corrosion and block the air passage.

Note 3) Clear cover: G46-00-00-4 is not compatible with G46-00-00-3.

Note 4) Avoid freezing as this may cause a malfunction. Note 5) The guaranteed temperature range is 23°C ±5°C.

Model (Standard)

Model	Pressure range (1)	Indication	Connection	Note
Model	MPa	unit	thread	
G46-2-01/02	0 to 0.2			
G46-4-01/02	0 to 0.4		-1/1/	
G46-7-01/02	0 to 0.7		R ¹ / ₈ , ¹ / ₄	
G46-10-01/02	0 to 1.0	MPa		
G46-2-01 to 02M	0 to 0.2	мра		_
G46-4-01 to 02M	0 to 0.4		$R^{1}/_{8, 1/_{4}}$	
G46-7-01 to 02M	0 to 0.7		M5 (Female thread)	
G46-10-01 to 02M	0 to 1.0			
GA46-10-01 to 02	0 to 1.0		$R^{1}_{8, 1/4}$	

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

Madal (Mada ta Ordan)	Other versions of this unit can be made on a Made-to-Order basis. Please consul
Model (Made to Order)	Other versions of this unit can be made on a Made-to-Order basis. Please consul with SMC for details, as delivery times may be extended.

	Pressure	range (1)	Indication	Connection	
Model	MPa	psi	unit	thread	Note
G46-2-01 to 02-C/C2	0 to 0.2	-			
G46-4-01 to 02-C/C2	0 to 0.4			51/1/	
G46-7-01 to 02-C/C2	0 to 0.7			R ¹ / ₈ , ¹ / ₄	With cover ring assembly
G46-10-01 to 02-C/C2	0 to 1.0		MPa		
G46-2-01 to 02M-C/C2	0 to 0.2				ning assertiony
G46-4-01 to 02M-C/C2	0 to 0.4			$R^{1}_{8, 1/4}$	
G46-7-01 to 02M-C/C2	0 to 0.7			M5 (Female thread)	
G46-10-01 to 02M-C/C2	0 to 1.0				
G46-P2-01 to 02-X30 ⁽²⁾	0 to 0.2	0 to 30			
G46-P10-01 to 02-X30 (2)	0 to 1.0	0 to 150	MPa, psi	R ¹ /8, ¹ /4	
G46-P2-01 to 02-C/C2-X30 (2)	0 to 0.2	0 to 30	ivira, psi	H /8, /4	With cover
G46-P10-01 to 02-C/C2-X30 (2)	0 to 1.0	0 to 150			ring assembly
G46-15-02	0 to 1.5	_	MPa	R ¹ / ₄	_

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).

Pressure Gauge for General Purpose/With Limit Indicator G46/GA46 Series

How to Order 46 - 10 G 01 Pressure gauge 2 3 4 5 F 0 Type Symbol Description G46 GA46 Back side thread Vertical side thread + 2 0.2 MPa . . 4 0.4 MPa • • 7 0.7 MPa . . 10 1.0 MPa • • 15 MPa 15 • . Max. display pressure 2 P2 (1) 0.2 MPa, 30 psi (2) O (2) P4 (1) 0.4 MPa, 60 psi P7 (1) 0.7 MPa, 100 psi (2) (2) 1.0 MPa, 150 psi <u>(2)</u> P10(1) (2) P15⁽¹⁾ 1.5 MPa, 220 psi O⁽²⁾ +01 R 1/8 . . 6 Connection thread 02 B 1/4 . . + Nil . . 4 Option M (3) With M5 (Female thread) . + Nil Without cover ring assembly . . С Clear cover has no protrusion. (Clear cover is irremovable.) . 6 Attachment Clear cover has protrusion. (Clear cover is removable.) C2 _ • The wrench flats protrude. + Nil • . Special _ (5) 6 X2 Stud parts Nickel plated . specification X30 Both MPa and psi (2) O⁽²⁾

Note 1) This symbol must be used with Special specification "X30."

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

Note 3) To use the pressure gauge with M5 (female thread), attach the joint when piping the tube. For combinations with the special specification products, please consult SMC separately.

SMC

Note 4) When wetted parts with the stainless steel specifications are needed, use the G46-D-D-SRB.

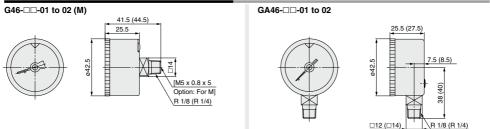
Note 5) When necessary, please contact SMC.

G GS PPA

⊘SMC

* The dimensions in (): Connecting thread R 1/4

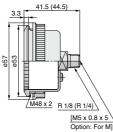
Dimensions (Except Made-to-Order products)



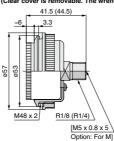
G46-□□-01 to 02 (M)-C G46-□□-01 to 02 (M)-C2 With cover ring assembly (For panel mount)



Type C (Clear cover is not removable.)



Type C2 (Clear cover is removable. The wrench flats protrude.)



Panel fitting dimensions Plate thickness Max. 3.5t



G GS PPA



Pressure Gauge for General Purpose G33/GA33 Series ROHS

Standard Specifications



· Be sure to read the precautions on page 890 for selection and mounting.

Symbol



М	odel	G33	GA33	
Туре		Back side thread	Vertical side thread	
Port size (1)		R	1⁄8	
Fluid (2,3)		Air		
Indication p	recision (4)	±3% F.S. (Full span)		
	Case	Stainless steel		
Material	Clear cover	Glass		
Wateria	Stud	Brass		
	Bourdon tube	Brass		
Weight [kg] 0.03 0.033			0.033	
Applicable	model	IP5000, IR1000, IT1000	ARM2500, 3000	

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.

Model (Standard)

Model	Pressure range ⁽¹⁾	Indication	Connection	Note
WIDGEI	MPa	unit	thread	NOLE
G33-2-01	0 to 0.2			
G33-3-01	0 to 0.3			
G33-4-01	0 to 0.4			
G33-6-01	0 to 0.6			
G33-10-01	0 to 1.0	MPa	R 1/8	_
GA33-2-01	0 to 0.2			
GA33-4-01	0 to 0.4			
GA33-7-01	0 to 0.7			
GA33-10-01	0 to 1.0			

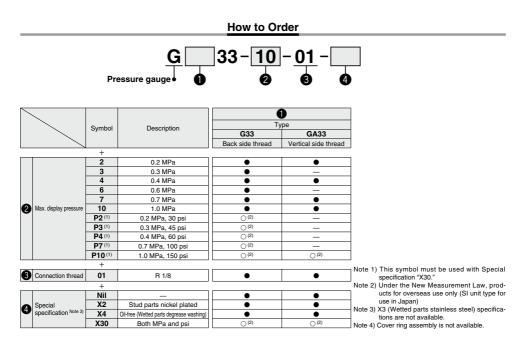
Note 1) Do not apply pressure more than the maximum display pressure. This will cause a malfunction.

Model (Made to Order)

Model	Pressure	range (1)	Indication	Connection	Note
woder	MPa	psi	unit	thread	Note
G33-2-01-X2	0 to 0.2				X2: Stud parts
G33-4-01-X2	0 to 0.4	-			electroless
G33-6-01-X2	0 to 0.6				nickel plated
G33-10-01-X2	0 to 1.0				monter plated
GA33-2-01-X2	0 to 0.2	_	MPa	R 1/8	
GA33-4-01-X2	0 to 0.4				X2: Stud parts
GA33-7-01-X2	0 to 0.7				nickel plated
GA33-10-01-X2	0 to 1.0	_			
G33-10-01-X4	0 to 1.0	-]		X4: Oil-free (Wetted parts degreasing)
GA33-P10-01-X30 ⁽²⁾	0 to 1.0	0 to 150	MPa, psi	R 1/8	_

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)

Pressure Gauge for General Purpose G33/GA33 Series



Dimensions





Pressure Gauge for General Purpose (DT type) G43 Series



G43-10-01

• Be sure to read the precautions on page 890 for selection and mounting.

Symbol



Standard Sp					
М	odel	G43			
Туре		Back side thread			
Port size (1)		R 1⁄8, R 1⁄4			
Fluid (2)		Air			
Indication	precision (3)	±3% F.S. (Full span)			
	Case	Stainless steel			
Material	Clear cover	Glass			
Material	Stud	Brass			
	Bourdon tube	Brass			
Weight [kg]		0.07			
Applicable	model	IP200, IP8000, IR2000, IR3000, IT2000, IT4000			

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) Avoid freezing as this may cause a malfunction. Note 3) The guaranteed temperature range is 23°C ±5°C.

Model (Standard)

Standard Specifications

Model	Pressure range (1) MPa	Indication unit	Connection thread	Note
G43-2-01 to 02	0 to 0.2		B 1/8, B 1/4	
G43-4-01 to 02	0 to 0.4	1	н 78, н 74	
G43-6-01	0 to 0.6	MPa	R 1/8	—
G43-7-01 to 02	0 to 0.7		R 1/8, R 1/4	
G43-10-01 to 02	0 to 1.0		п /8, п /4	

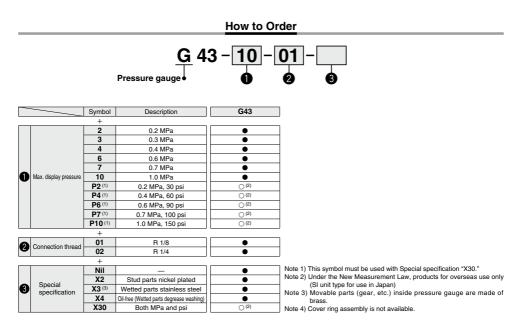
Note 1) Do not apply pressure more than the maximum display pressure. This will cause a malfunction.

Model (Made to Order)

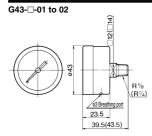
Model	Pressure range (1)	Indication unit	Connection thread	Note
	MPa	unit	uneau	
G43-2-01 to 02-X2	0 to 0.2		R 1/8, R 1/4	
G43-4-01 to 02-X2	0 to 0.4		n /8, n /4	V0: Stud parts
G43-6-01-X2	0 to 0.6]	R 1/8	X2: Stud parts nickle plated
G43-7-01 to 02-X2	0 to 0.7	1	R 1/8, R 1/4	nickie plateu
G43-10-01 to 02-X2	0 to 1.0]	п /8, п /4	
G43-2-01 to 02-X3	0 to 0.2	1	D14 D14	
G43-4-01 to 02-X3	0 to 0.4	MPa	R 1⁄8, R 1⁄4	X3: Wetted parts
G43-6-01-X3	0 to 0.6	IVIFa	R 1/8	stainless steel
G43-7-01 to 02-X3	0 to 0.7]	D 1/ D 1/	stalliess steel
G43-10-01 to 02-X3	0 to 1.0	1	R 1⁄8, R 1⁄4	
G43-2-01-X4	0 to 0.2]	R 1/8	X4: Oil-free
G43-4-01 to 02-X4	0 to 0.4]		(Wetted parts
G43-7-01 to 02-X4	0 to 0.7	1	R 1/8, R 1/4	(welled parts degreasing)
G43-10-01 to 02-X4	0 to 1.0			uegreasing)

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

Pressure Gauge for General Purpose (DT type) **G43** Series



Dimensions (Except Made-to-Order products)



^{*} The dimensions in (): Connection thread R 1/4



With Color Zone Limit Indicator G36-L/G46-L Series ROHS

Standard Specifications



I	Model		G36-L	G46-L		
Туре			Back sid	e thread		
Port size (1) R 1/8				R 1/8, R 1/4		
Fluid (2	:) (3)		A	ir		
Indication precision (4) ±3%F.S. (Fu				Full span)		
Case (Surface treatment)			Stainless steel (Black melamine painted)			
Material	terial Clear cover		Polycarbonate (Part no.: G36-00-00-3) Nylon (Part no.: G36-00-00-3N)	Polycarbonate (Part no.: G46-00-00-3) Nylon (Part no.: G46-00-00-3N)		
	Stud		Brass			
	Bourdon tu	ıbe	Bra	Brass		
Weight (kg)			0.04 0.05			
	Attachment: C Vith cover ring			Part no.: 1305104-1A ⁽⁵⁾		
assem		C2	_	Part no.: 1305104-9A		

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. Note 5) C only applies when the material of the clear cover is polycarbonate.

Model (Standard)

Model	Pressure range (1)	Green zone	setting range	Indication	Connection	Noto
woder	MPa	Minimum setting range MPa	Maximum setting range MPa	unit	thread	note
G36-2-01-L□	0 to 0.2	0.01	0.1			
G36-4-01-L□	0 to 0.4	0.02	0.2		R 1/8	
G36-10-01-L□	0 to 1.0	0.05	0.5	MPa		
G46-2-01 to 02-L	0 to 0.2	0.01	0.1	wPa	-	_
G46-4-01 to 02-L	0 to 0.4	0.02	0.2		R 1/8 1/4	
G46-10-01 to 02-L	0 to 1.0	0.05	0.5		1/4	

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

Model (Made to Order)

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

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).

■Red and green zones offer improved visibility of pressure control range.



Indicator adjusts to highlight preferred range.





With Color Zone Limit Indicator G36-L/G46-L Series

How to Order G 36 10 01 Pressure gauge á 2 ß 4 5 6 Color zone type 0 Symbol Description Size G36 G46 + 2 0.2 MPa . . 4 0.4 MPa . . 10 1.0 MPa • • 0 Max. display pressure P2 (1) 0.2 MPa, 30 psi (2) (2) P4 (1) 0.4 MPa, 60 psi (2) O⁽²⁾ P10⁽¹⁾ 1.0 MPa, 150 psi (2) (2) + 01 B 1/8 • . 6 Connection thread 02 R 1/4 • _ + Nil Polycarbonate • • 4 Clear cover material Ν Nylon • . + Nil Without cover ring assembly _ . С △ (3) Clear cover has no protrusion. (Clear cover is irremovable.) _ 6 Attachment Clear cover has protrusion. (Clear cover is removable.) C2 _ • The wrench flats protrude. + Nil • • Special 6 X2 Stud parts nickel plated • specification Both MPa and psi (2) X30 (2)

Note 1) This symbol must be used with Special specification "X30."

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

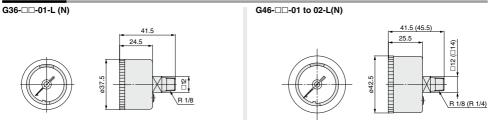
Note 3) \triangle only applies when the material of the clear cover is polycarbonate.

G GS PPA

⊘SMC

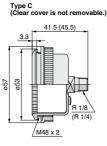
With Color Zone Limit Indicator G36-L/G46-L Series

Dimensions * The dimensions in (): Connection thread R 1/4

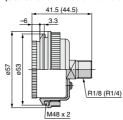


G46-□□-01 to 02-L-C G46-□□-01 to 02-L(N)-C2 With cover ring assembly (For panel mount)





Type C2 (Clear cover is removable. The wrench flats protrude.)



Panel fitting dimensions Plate thickness Max. 3.5 t





Pressure Gauge with Color Zone Limit Indicator G53-L/G63-L

Standard Specifications

	Model	G53-L	G63-L		
Туре		Back side thread			
Connec	tion thread*1	R1/8, R1/4			
Fluid*	2	Air			
Indication precision*3 ±3%F.S.(Full span)		Full span)			
	Case	Stainless steel			
Material	Clear cover	Polycarbonate (Part no.: G53-00-00-3)	Polycarbonate (Part no.: G63-00-00-3)		
wateriai	Stud	Brass			
	Bourdon tube	Brass			
Weight [kg] 0.0		0.093	0.107		

· Caution for handling: Avoid freezing as this may cause a malfunction.

*1 When mounting a pressure gauge, use caution not to tighten it excessively. Excessive tightening will damage the product.

Use sealant tape for sealing. *2 Before using with other fluids, please contact SMC for fluid compatibility information concerning corrosive potential. *3 The guaranteed temporature range is 23°C ±5°C.

Model (Standard)

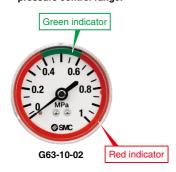
	Pressure range*1	Green zone setting range			
Model	MPa	Minimum setting range [MPa]	Maximum setting range [MPa]	unit	Connection thread
G53-2-01 to 02-L	0 to 0.2	0.01	0.1		
G53-4-01 to 02-L	0 to 0.4	0.02	0.2		5.0
G53-7-01 to 02-L	0 to 0.7	0.05	0.35	MPa	R1/8, R1/4
G53-10-01 to 02-L	0 to 1.0	0.05	0.5		11/4
G63-10-01 to 02-L	0 to 1.0	0.05	0.5		

Red and green zones offer improved visibility of pressure control range.

G53-10-02

G63-10-02

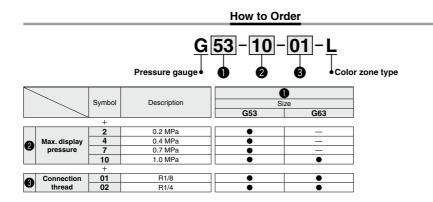
*1 Do not apply any amount of pressure that exceeds the maximum display pressure. This will cause a malfunction.



Indicator can be adjusted to highlight preferred range



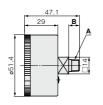
Pressure Gauge with Color Zone Limit Indicator G53-L/G63-L Series



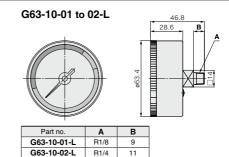
Dimensions

G53-□-01 to 02-L





Part no.	Α	В
G53-□-01-L	R1/8	9
G53-□-02-L	R1/4	11





Oil-free/External Parts Copper-free Pressure Gauge/With Limit Indicator G46E Series





G46E-10-02M

G46E-10-02M-C

• Be sure to read the precautions on page 891 for selection and mounting.

	Model		G46E	
Туре			Back side thread	
Port size (1)			R ¹ / ₈ , R ¹ / ₄ (Option M: with M5 female thread)	
Fluid (3)			Air	
Indication precision (4)			±3% F.S. (Full span)	
Fluid con	id contact part cleaning Wetted parts degrease washing		Wetted parts degrease washing	
	Case (Surface treatment)		Rolled steel (Black melamine painted)	
Material	Clear cover (Surface treat	Clear cover (Surface treatment)		Polycarbonate (Hard coated) Part no.: G46-00-00-2
	Stud (Surface trea	itment)	Brass (Electroless nickel plated)	
	Bourdon tube		Brass (2)	
Weight (kg)			0.08	
Attachment: C With cover ring assembly C2		с	Part no.: 1305104-1A	
		C2	Part no.: 1305104-9A	

Note 1) When mounting a pressure gauge, use caution not to tighten excessively. Excessive tightening will cause product failure. Use a pipe tape for sealing.

Note 2) Bourdon tube and internal movable parts (gear, etc.) are made of brass and are not electrolessly nickel plated. This is not an internally copper-free product.

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

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

Model (Standard)

Model	Pressure range ⁽¹⁾ MPa	Indication unit	Connection thread	Note
G46E-2-01 to 02M	0 to 0.2		$\begin{array}{c} R \stackrel{1}{}_{8} \\ R \stackrel{1}{}_{4} \\ M5 \text{ (Female thread)} \end{array}$	
G46E-4-01 to 02M	0 to 0.4	MPa		_
G46E-7-01 to 02M	0 to 0.7	wra		_
G46E-10-01 to 02M	0 to 1.0		wo (remaie uneau)	

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.

Model (Made to Order)	Please consu	ult SMC for d	etails, as deliver	y times may be exten	ded.
Model	Pressure	e range ⁽¹⁾	Indication	Connection	Note
	MPa psi		unit	thread	Note
G46E-2-02M-C/C2	0 to 0.2	_		- 17	
G46E-4-02M-C/C2	0 to 0.4	_	MPa	R ¹ / ₈ R ¹ / ₄	
G46E-7-02M-C/C2	0 to 0.7	_	IVIFa	M5 (Female thread)	
G46E-10-02M-C/C2	0 to 1.0	_		Nio (Fernale triteau)	With cover
G46E-P2-01 to 02M-C/C2-X30 (2)	0.45.0.0	0.45.00		R 1⁄4	ring assembly
G46E-F2-01 10 02M-C/C2-X30	0 to 0.2	0 to 30	MDa ani	M5 (Female thread)	
G46E-P10-01 to 02M-C/C2-X30 (2)	0 += 1 0	0 += 150	MPa, psi	R 1/8, 1/4	
	0 to 1.0	0 to 150		M5 (Female thread)	

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)

How to Order G 46 E -10 01 Pressure gauge Oil-free, external parts copper-free G46E Symbol Description + 2 0.2 MPa . 0.4 MPa 4 • 7 0.7 MPa . 10 1.0 MPa • Ø Max. display pressure 15 1.5 MPa • 0.2 MPa, 30 psi P2 (1) O⁽²⁾ P7 (1) 0.7 MPa, 100 psi 1.0 MPa, 150 psi P10(1) (2) 4 01 B 1/8 . 0 Connection thread 02 R 1/4 • + Nil • 6 Option M (3) With M5 (Female thread) • Nil Without cover ring assembly . Clear cover has no protrusion. (Clear cover is irremovable.) С • 4 Attachment Clear cover has protrusion. C2 (Clear cover is removable.) . The wrench flats protrude. + Nil . 6 Special specification X30 Both MPa and psi (2)

Note 1) This symbol must be used with Special specification "X30."

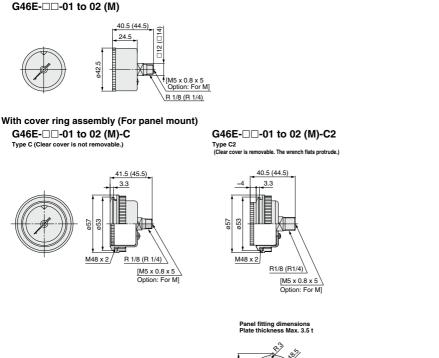
Note 2) Under the New Measurement Law, products for overseas use only (SI unit type for use in Japan)

Note 3) To use the pressure gauge with M5 (female thread), attach the joint when piping the tube.

G GS PPA

⊘SMC

Dimensions * The dimensions in (): Connection thread R 1/4





Refer to page 890 for mounting method.



Pressure Gauge for Clean Series (10-series) G49 Series



· Be sure to read the precautions on page 891 for selection and mounting.

Installation of a filter on the breathing hole (filtration 3 µm) enables an Standard Specifications unit to curb particle generation from the pressure gauge inside.

	Model	G49			
Туре		Back side thread			
Port size	1)	R ¹ / ₈ , R ¹ / ₄			
Fluid (2) (4)		Air			
Indication precision (5)		±3% F.S. (Full span)			
	Case	Zinc die-casted			
	(Surface treatment)	(Chromate plated)			
Material	Clear cover	Glass			
wateria	Stud (Surface treatment)	Brass (Nickel plated for external parts only)			
	Bourdon tube	Brass (3)			
Weight (k	g)	0.095			

Note 1) When mounting a pressure gauge, use caution not to tighten excessively. Excessive tightening will cause product failure. Use a pipe tape for sealing. Recommended tightening torque: R1/8: Set between 7 to 9 N·m, R1/4: 12 to 14 N·m respectively.

Note 2) When fluid is water, use G49-□-X3. Wetted parts of G49-□-X3 are made of Stainless steel. Use caution as some corrosion may be caused by water. Standard G49 pressure gauge conact area is made of brass. When using water, use caution not to apply water hammer. Similarly, when using other fluids, consult SMC for fluid compatibility information concerning corrosive potential.

Note 3) Bourdon tube and internal movable parts (gear, etc.) are made of brass, and are not nickel plated.

Note 4) Avoid freezing as this may cause a malfunction.

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

Model (Standard)

Marial	Pressure range (1)	Indication	Connection	Note
Model	MPa	unit	thread	NOLE
G49-2-02	0 to 0.2			
G49-7-02	0 to 0.7	MPa	R 1/4	_
G49-10-02	0 to 1.0			

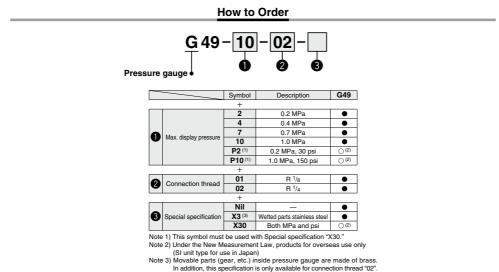
Note 1) Do not apply pressure more than the maximum display pressure. This will cause a malfunction.

Other versions of this unit can be made on a Made-to-Order basis.

Model (Made to Order) Please consult with SMC for details, as delivery times may be extended.								
Model	Pressure	e range ⁽¹⁾	Indication	Connection	Note			
Woder	MPa	psi	unit	thread	NOLE			
G49-P2-02-X30 ⁽²⁾	0 to 0.2	0 to 30	MPa. psi	B 1/4				
G49-P10-02-X30 ⁽²⁾	0 to 1.0	0 to 150	ivira, psi	n ⁄4	_			

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)

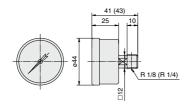
Pressure Gauge for Clean Series (10-series) **G49** Series



Note 4) Cover ring assembly is not available.

Dimensions * The dimensions in (): Connection thread R 1/4

G49-□-01 to 02



Pressure Gauge for Clean Regulator/ With Limit Indicator G46-SRA/B Series ROHS

Standard Specifications



G46-10-02-SRA.B

· Be sure to read the precautions on page 891 for selection and mounting.

	Model		G46-⊡-SRA	G46-⊡-SRB		
Туре			Back side thread			
Port size (1)			R 1/8,	R 1⁄4		
Fluid (4)			Air, Water	Air, Water		
Indication p	precision (5)		±3% F.S.	(Full span)		
Fluid contact p	art cleaning (We	tted part)	Precision cleaning	General degreasing		
Assembly/environment Clean room M5.5 (Class 10000) Gene			General production line			
Oil/Water free Oil/Water-free (2)				er-free (2)		
	Case		Stainless steel 304 (Black melamine painted)			
Material (3)	Clear cover (Surface treatment)		Polycarbonate (Hard coated) Part no.: G46-00-00-2			
	Stud		Stainless steel 316			
	Bourdon tube		Stainless steel 316			
Attachment: C		Part no.: 1305104-6A				
assembly C ₂		C2	Part no.: 1305104-12A			
Packaging		Polyethylene cap for stud parts.Airtight polyethylene bag	Polyethylene cap for stud parts.Polyethylene bag			
Weight (kg)			0.085	0.085		

Note 1) When mounting a pressure gauge, use caution not to tighten excessively. Excessive tightening will cause product failure. Use a pipe tape for sealing.

Note 2) When manufacturing pressure gauge, SMC uses caution not to allow water to remain in the wetted parts. Note 3) Movable parts (gear, etc) inside pressure gauge are made of brass.

Note 4) Excludes corrosive fluids. Be sure to avoid freezing as this may cause a malfunction.

Also, if using water as the fluid, make sure that water hammer is not being applied.

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

Model (Standard)

Model	Pressure range (1)	Indication	Connection	Note
Model	MPa	unit	thread	Note
G46-2-01 to 02-SRA	0 to 0.2			
G46-2-01 to 02-SRB	0100.2	MPa	R 1/8	
G46-4-01 to 02-SRA	045.0.4		R 1/4	
G46-4-01 to 02-SRB	0 to 0.4			
G46-7-02-SRA	0 to 0.7		R 1⁄4	
G46-7-02-SRB	0100.7			
G46-10-02-SRA	04-10			
G46-10-02-SRB	0 to 1.0			

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 (1)		Indication	Connection	Note
	MPa	psi	unit	thread	
G46-P10-01 to 02-SRB-X30 (2)	0 to 1.0	0 to 150	MPa, psi	R 1/8, 1/4	

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)

Pressure Gauge for Clean Regulator/ With Limit Indicator G46-SRA/B

How to Order

Symbol Description G46 + -		<u>G</u> 46 - <u>1</u> (0-0	1 - SRA]-[]-[]					
	Pressure gauge	• •			66					
2 0.2 MPa 4 0.4 MPa 7 0.7 MPa 10 1.0 MPa P2 (1) 0.2 MPa, 30 psi P10 (1) 1.0 MPa, 150 psi				Description	G46					
Max. display pressure 4 0.4 MPa • 7 0.7 MPa • • 10 1.0 MPa • • P2 (1) 0.2 MPa, 30 psi ○(2) P10 (1) 1.0 MPa, 150 psi ○(2) + 01 R 1/8 • Ø Option Ni - * • • • Ø Option Ni - * Component pafts: Precision cleaning Assembly: Clean room M5.5 (Class trouod) • Ø Grade SRA Component come coment discussion				0.0 MP-						
Max. display pressure 7 0.7 MPa • 10 1.0 MPa •					•					
Max. display pressure 10 1.0 MPa P2 (1) 0.2 MPa, 30 psi 0(2) P10 (1) 1.0 MPa, 150 psi (2) + 01 R 1/8 (2) - (1) (1) (1) - (1) (1) (1) (1) (1) (1) (1) (1) (2) (1) (1) (1) (1) (1) (2) (1) (1) (1) (1) (1) (1) (2) (1) (1) (1) (1) (1) (1) (1) (2) (1) (1) (1) (1) (1) (1) (1) (2) (1) (1) (1) (1) (1) (1) (1) (3) Option Mit (1) (1) (1)					•					
P2 (1) 0.2 MPa, 30 psi (2) P10 (1) 1.0 MPa, 150 psi (2) + (2) (2) + (2) (2) Connection thread 01 R 1/8 (2) 02 R 1/4 (4) (4) (3) Option Nil		Max. display pressure								
P10 (1) 1.0 MPa, 150 psi (2) + + • • Option Nil • • Option Nil • • Garade SRA Component parts: Precision cleaning Assembly: Clean room M5.5 (Class 10000) • Grade Component parts: Clean room M5.5 (Class 10000) •			10							
+ 01 R 1/8 02 R 1/4 • •				0.2 MPa, 30 psi						
Option Nil - Image: Connection thread 01 R 1/8 Image: Connection thread Image: Connection thread + Image: Connection thread Image: Conn				1.0 MPa, 150 psi	O ⁽²⁾					
Connection thread O2 R 1/4 + + Option Mi M (3) With M5 (Fernale thread) + Component parts: Precision cleaning Assembly: Clean room M5.5 (Class 10000) Grade Component action common floannaine	_									
Option Nil — Image: Strain St		2 Connection thread			•					
Option Nil M(3) With M5 (Fernale thread) + Grade Grade Grade Grade Grade Component parts: Precision cleaning Assembly: Clean room M5.5 (Class 10000) Grameent common formation				R 1/4	•					
Option M (3) With M5 (Female thread) + Component parts: Precision cleaning Assembly: Clean room M5.5 (Class 10000) Commend themachen										
Grade Grade Component parts: Precision cleaning Assembly: Clean room M5.5 (Class 10000)		Ontion	Nil	_	•					
Grade SRA Component parts: Precision cleaning Assembly: Clean room M5.5 (Class 10000)		Option	M (3)	With M5 (Female thread)	•					
Grade SRA Assembly: Clean room M5.5 (Class 10000)		•	+							
Component parts: General degreasing		4 Grade	SRA	Assembly: Clean room M5.5	•					
SRB Assembly: General production line			SRB	Component parts: General degreasing Assembly: General production line	•					
	_	+								
Nil Without cover ring assembly			Nil	Without cover ring assembly	•					
Attachment C Clear cover has no protrusion. (Clear cover is irremovable.)		Attachmont	c		•					
Clear cover is removable.) The wrench flats protrusion.		Attachment		(Clear cover is removable.)	•					
+										
6 Special specification Nil — •			Nil	-						
Special specification X30 Both MPa and psi O ⁽²⁾			X30	Both MPa and psi	O ⁽²⁾					

Note 1) This symbol must be used with Special specification "X30." Note 2) Under the New Measurement Law, products for overseas use only (SI unit type for use in Japan)

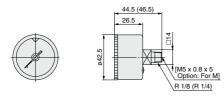
Note 3) To use the pressure gauge with M5 (female thread), attach the joint when piping the tube. For combinations with the special specification products, please consult SMC separately.



⊘SMC

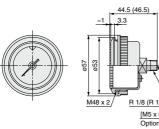
Dimensions * The dimensions in (): Connection thread R 1/4

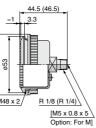
G46-00-01 to 02 (M)-SRA/SRB

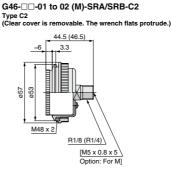


With cover ring assembly (For panel mount)

G46-00-01 to 02 (M)-SRA/SRB-C Type C (Clear cover is not removable.)







Panel fitting dimensions Plate thickness Max. 3.5 t





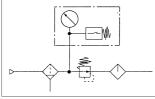


Pressure Gauge with Switch $\zeta \in$ [Option GP46 Series RoHS



- 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.

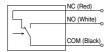
Circuit Example



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

Circuit Diagram

Without indicator light



With indicator light





24 VDC



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

Standard Specifications

otanuara opoonioationo						
	Model			GP46		
	Туре			Back side thread		
~	Ambient and fluid temperature			-5 to 60°C (No freezing)		
Gauge	Indicated pressure	ang		0 to 1.0 MPa		
gal	Port size (1)			R 1/8, R 1/4 (Option M: with M5 female thread)		
U	Fluid (2) (6)			Air		
	Indication precision (7)			±0.03 MPa		
	Setting range (3) (4)			0.1 to 0.8 MPa		
£	Hysteresis			0.07 MPa		
switch	Pointer error (5)			±0.05 MPa (5 to 40°C)		
Š	Fointer entor			±0.08 MPa (-5 to 60°C) No freezing		
ē	Contact			With light: 1a (Normally open)		
ssu				Without light: 1ab (Normally open/ Normally closed)		
Pressure	Wiring			Lead wire (Length: 300 mm)		
٩	Indicator light	AC		Neon light		
	Indicator light DC			Light emitting diode (LED)		
	Clear cover			Part no.: G46-00-00-3		
	Attachment: C		С	Part no.: 1305104-4A		
	With cover ring assembly C2		C2	Part no.: 1305104-10A		
	Weight (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.
- 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 ust 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 890 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 (±0.03 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.

Note 6) Avoid freezing as this may cause a malfunction. Note 7) The guaranteed temperature range is 23°C ±5°C.

Model (Standard)

Mardal	Pressure range (1)	Indication	Connection	Note	
Model	MPa	unit	thread	Note	
GP46-10-01 to 02 (-Q)			$R^{1}/_{8}$		
GP46-10-01 to 02L2	0 to 1.0	MPa	R_{8} R_{4}^{1}	_	
GP46-10-01 to 02L5 (-Q)			n/4		

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

Other versions of this unit can be made on a Made-to-Order basis. Model (Made to Order)

Please consult with SMC for details, as delivery times may be extended.

Model	Pressure range (1)		Indication	Connection	Note
Model	MPa	psi	unit	thread	NOLE
GP46-10-01 to 02-X201					Lead wire
GP46-10-01 to 02L2-X201	0 to 1.0	_	MPa	R ¹ / ₈	length
GP46-10-01 to 02L5-X201	0 to 1.0			$R_{1/4}^{1/4}$	3 m
GP46-P10-01 to 02-X30 (2)		0 to 140	MPa, psi		
GP46-P10-01 to 02L5-X30 (2)	0101.0	010140	ivii a, poi		_

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)

Micro-switch Rated Voltage

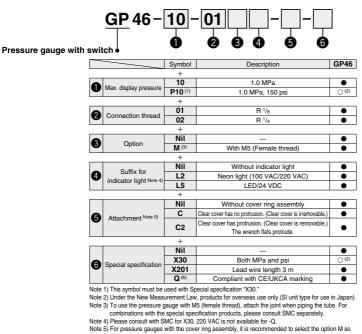
Load	Load resistant		
Rated voltage	30 VDC	125 VAC	250 VAC
Operating current range	0.01 to 0.5 A	0.01 to 0.3 A	0.01 to 0.2 A





Pressure Gauge with Switch **GP46**



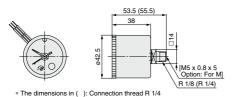


as to perform the piping. Note 6) The rated micro switch for CE/UKCA marked products is under the following conditions.

	Loud resistant		
Rated voltage	30 VDC	125 VAC	
Operating current range	0.01 to 0.5 A	0.01 to 0.3 A	

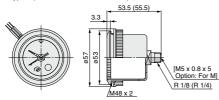
Dimensions (-Q: With ground terminal on back side) * The dimensions in (): Connection thread R 1/4

GP46-10-01 to 02 (M) (L2,5)



With cover ring assembly (For panel mount) GP46-10-01 to 02 (M) (L2,5)-C

Type C (Clear cover is not removable.)



GP46-10-01 to 02 (M) (L2,5)-C2

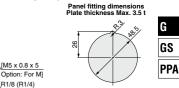
3.3

M48 x 2

ø53

∕⊘SMC

Type C2 (Clear cover is removable. The wrench flats protrude.) 53.5 (55.5)

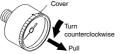


Refer to page 890 for mounting method.

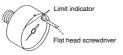
Pressure Gauge Guide Procedures for Setting and Assembling

Procedure for Setting the Limit Gauge Indicator

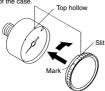
(1) Before setting the (green) limit indicator, turn the cover counterclockwise (approximately 6 to 7 mm) until it stops. Then, remove by pulling it towards you.



(2) Use a flat head screwdriver (with a 2.9 mm blade width) to set the (green) limit indicator. Be careful not to bend the other needle or damage the dial plate.

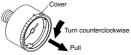


(3) After completing the setting, replace the cover. Fit the cover by aligning the cutout in the cover to the groove on the top of the black case. Turn the cover clockwise (approximately 6 to 7 mm) until it stops. Make sure that the matching mark on the cover is aligned with the groove on the top of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



Procedure for Setting the Limit Gauge Indicator (Color Zone Type)

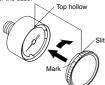
 Before setting the color zone (red), turn the cover counterclockwise (approximately 6 to 7 mm) until it stops. Then remove by pulling it towards Vou.



(2) Use a pen tip to set the color zone (red). Be careful not to bend the other needle or damage the dial plate.

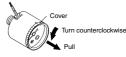


- (3) After completing the setting, replace the cover.
- Fit the cover by aligning the cutout in the cover to the groove on the top of the black case. Turn the cover clockwise (approximately 6 to 7 mm) until it stops. Make sure that the matching mark on the cover is aligned with the groove on the top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



Procedure for Setting the Limit Gauge Indicator and the Setting Needle

(1) Before setting the limit indicator and the (green) setting needle, turn the cover counterclockwise (approximately 6 to 7 mm) until it stops. Then, remove by pulling it towards you.



(2) Use a flat head screwdriver (with a 2.9 mm blade width) to set the (green) limit indicator. Be careful not to bend the other needle or damage the dial plate.



(3) Before setting the setting needle, use a flat head screwdriver (with a 2.9 mm blade width) to turn the setting screw and set the setting needle to the set pressure.



In the case of turning the set screw

- Clockwise Decrease of setting press.
- Counterclockwise Increase of setting press.
- increase of setting press.

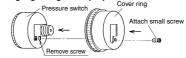
Flat head screwdriver

- (4) After completing the setting, replace the cover.
 - Fit the cover by aligning the cutout 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.

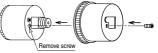


Procedure for Assembling the Cover Ring Assembly

Pressure gauge for general purpose



Pressure gauge with switch



- 1. Remove the small screw (1 position) from the pressure gauge.
- 2. Place the cover ring on the pressure gauge.
- 3. 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.

SMC



Pressure Gauge Guide Specific Product Precautions

Be sure to read this before handling the products. Refer to back page 50 for safety Instructions.

Selection

≜Caution

- 1. Do not apply high load voltage (current) or surge current as this can cause the switch to malfunction.
- 2. Make sure that no direct impact or vibrations are applied to the body.
- 3. If operating under pressure pulsations or in high frequency operations, please contact SMC.

Mounting

- 1. During transport and installation, do not apply shock to the product, such as by dropping doing so will affect its precision.
- Regarding 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.