

Series LQ₂¹

Options

Panel mounting nut

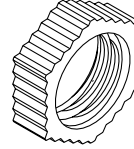
LQ N P 2 — []

Applicable fitting

Symbol		Class
LQ1	LQ2	
11	—	1
12	2	2
13	3	3
14	4	4
15	5	5
16	—	6

• Packaging

Nil	Clean packaging Class M3.5
1	Standard packaging Class M5.5



Used to secure a panel with a panel mount union.

Nut insert bushing

LQ [] — 2 U 03 — []

* The U type is recommended when changing tubing sizes.

Applicable fitting

Symbol	Application
Nil	For LQ2
1	For LQ1

• Class

Symbol	Class
1	1
2	2
3	3
4	4
5	5
6	6

• Type of parts

Symbol	Parts
U	Insert bushing + Nut
B	Insert bushing
N	Nut

• Packaging

Nil	Clean packaging Class M3.5
1	Standard packaging Class M5.5

• Applicable tubing size

Symbol	Connection tubing size	Class					
		LQ1	LQ1, LQ2	LQ1			
		1	2	3	4	5	6

Metric sizes

03	ø3 x ø2	○	○				
04	ø4 x ø3	○	○				
06	ø6 x ø4		○	○			
08	ø8 x ø6			○	○		
10	ø10 x ø8				○	○	
12	ø12 x ø10					○	○
19	ø19 x ø16						○
25	ø25 x ø22.5						○

Symbol	Connection tubing size	Class					
		LQ1	LQ1, LQ2	LQ1			
		1	2	3	4	5	6

Inch sizes

03	1/8" x 0.086"	○	○				
05	3/16" x 1/8"		○				
07	1/4" x 5/32"		○	○			
11	3/8" x 1/4"			○	○		
13	1/2" x 3/8"				○	○	
19	3/4" x 5/8"					○	○
25	1" x 7/8"						○



Note) In case of size 1, the tubing cannot be changed by reducing.

Blanking plug

LQ — 2 P 07 — []

• Packaging

Nil	Clean packaging Class M3.5
1	Standard packaging Class M5.5

• Applicable tubing size

Symbol	Connection tubing size	Class					
		LQ1	LQ1, LQ2	LQ1			
		1	2	3	4	5	6

Metric sizes

03	ø3 x ø2	○	●				
04	ø4 x ø3	○	●				
06	ø6 x ø4		○	●			
08	ø8 x ø6			●			
10	ø10 x ø8			○	●		
12	ø12 x ø10				○	●	
19	ø19 x ø16					○	●
25	ø25 x ø22.5						○

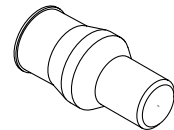
○ Basic size ● With reducer

Symbol	Connection tubing size	Class					
		LQ1	LQ1, LQ2	LQ1			
		1	2	3	4	5	6

Inch sizes

03	1/8" x 0.086"	○	●				
05	3/16" x 1/8"		●				
07	1/4" x 5/32"		○	●			
11	3/8" x 1/4"			○	●		
13	1/2" x 3/8"				○	●	
19	3/4" x 5/8"					○	●
25	1" x 7/8"						○

○ Basic size ● With reducer



Used to block fittings which are not being used.

Series LQ₂¹ Insertion Tool

Fittings

Changing tubing sizes

The tubing size can be changed within the same body class (body size) by replacing the nut and insert bushing. However, in case of size 1, the tubing cannot be changed by reducing.

Body class	Tubing O.D.														
	Metric sizes								Inch sizes						
	ø3	ø4	ø6	ø8	ø10	ø12	ø19	ø25	1/8"	3/16"	1/4"	3/8"	1/2"	3/4"	1"
1	○	○	—	—	—	—	—	—	○	—	—	—	—	—	—
2	●	●	○	—	—	—	—	—	●	●	○	—	—	—	—
3	—	—	●	●	○	—	—	—	—	—	●	○	—	—	—
4	—	—	—	—	●	○	—	—	—	—	—	●	○	—	—
5	—	—	—	—	—	●	○	—	—	—	—	—	●	○	—
6	—	—	—	—	—	—	●	○	—	—	—	—	—	●	○


Parts composition

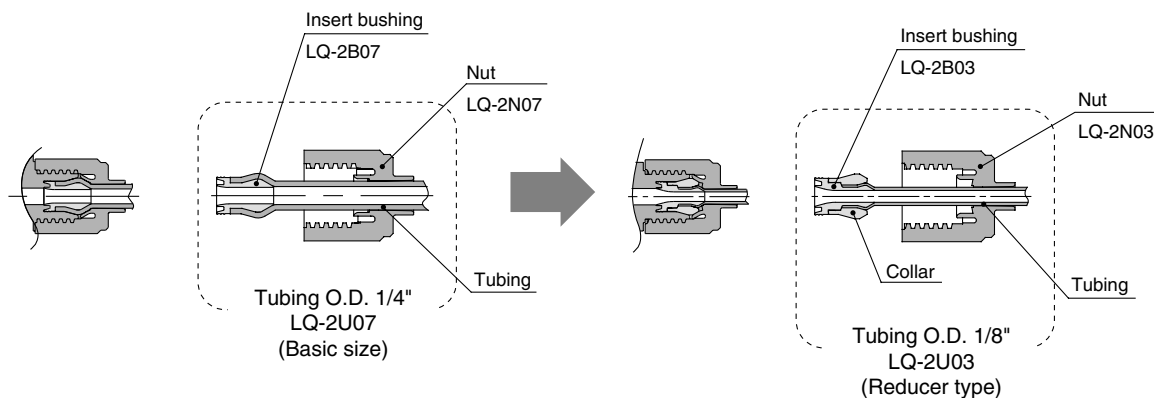
	Component parts		
	Nut	Insert	Collar (Insert assembly)
○ Basic size	Yes	Yes	No
● Reducer type	Yes	Yes	Yes

Changing the tubing size

Example) Changing the tubing from an O.D. 1/4" to O.D. 1/8" in LQ2 body class 2.

Prepare an insert bushing and nut for 1/8" O.D. tubing (LQ-2U03) and change the tubing size.
(Refer to the section on how to order fitting parts.)

 Note) Tubing is sold separately.



How to order insertion tool

LQ-G J [] - [] - []

Insert pin material

Nil	Resin
S	Stainless (J/K type only)

Insert pin/Holder type

Nil	Metric size
N	Inch size

Note 1) Compatible pins and holders are included with all sizes. (with parts case)

Option (L/M type only)

Symbol	Option
Nil	None
B	With brackets

Type

Symbol	Body class	J type	K type
J · K	1, 2		
L · M	1, 2, 3, 4, 5, 6		

Option

Description	Part no.
Bracket assembly	LQ-GBL

Table 1 Tubing size symbols

Type	Body class	Tubing O.D.														
		Metric sizes							Tubing outside diameter							
		ø3	ø4	ø6	ø8	ø10	ø12	ø19	ø25	1/8"	3/16"	1/4"	3/8"	1/2"	3/4"	1"
J	1	03	04	—	—	—	—	—	—	03	—	—	—	—	—	—
	2	—	04	06	—	—	—	—	—	03	05	07	—	—	—	—
L	1	03	04	—	—	—	—	—	—	03	—	—	—	—	—	—
	2	—	04	06	—	—	—	—	—	03	05	07	—	—	—	—
	3	—	—	06	08	10	—	—	—	—	—	07	11	—	—	—
	4	—	—	—	—	10	12	—	—	—	—	—	11	13	—	—
	5	—	—	—	—	—	12	19	—	—	—	—	—	13	19	—
	6	—	—	—	—	—	—	19	25	—	—	—	—	—	19	25

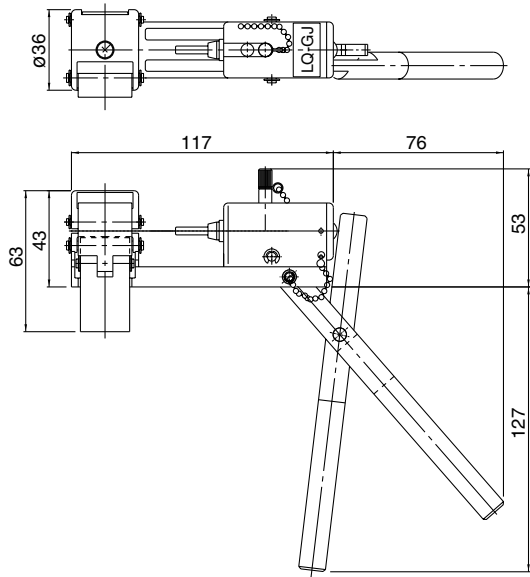
Replacement parts

Description	Part No.								
Insert pin holder assembly (with the parts case)	<p>LQ-GP J [] - []</p> <p>Type</p> <p>Insert pin material (J/K type only)</p> <table border="1"> <tr> <td>Nil</td> <td>Resin</td> </tr> <tr> <td>S</td> <td>Stainless steel</td> </tr> </table> <p>Holder type</p> <table border="1"> <tr> <td>Nil</td> <td>Metric sizes</td> </tr> <tr> <td>N</td> <td>Inch sizes</td> </tr> </table>	Nil	Resin	S	Stainless steel	Nil	Metric sizes	N	Inch sizes
Nil	Resin								
S	Stainless steel								
Nil	Metric sizes								
N	Inch sizes								
Insert pin (single)	<p>LQ-GP 2 J [] - [] - []</p> <p>Body class (Refer to Table 1)</p> <p>Tubing size symbol (Refer to Table 1)</p> <p>Insert pin material (J/K type only)</p> <table border="1"> <tr> <td>Nil</td> <td>Resin</td> </tr> <tr> <td>S</td> <td>Stainless steel</td> </tr> </table>	Nil	Resin	S	Stainless steel				
Nil	Resin								
S	Stainless steel								
Holder (single)	<p>LQ-GH J - []</p> <p>Tubing size symbol (Refer to Table 1)</p> <p>Type</p>								

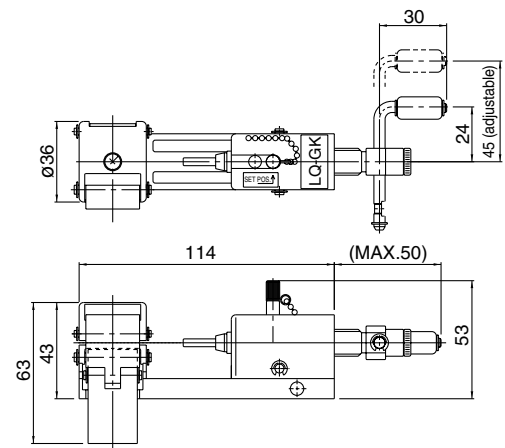
Note 1) Replacement part type J shows the parts for LQ-GJ and LQ-GK. Replacement part type L shows the parts for LQ-GL and LQ-GM.

Dimensions

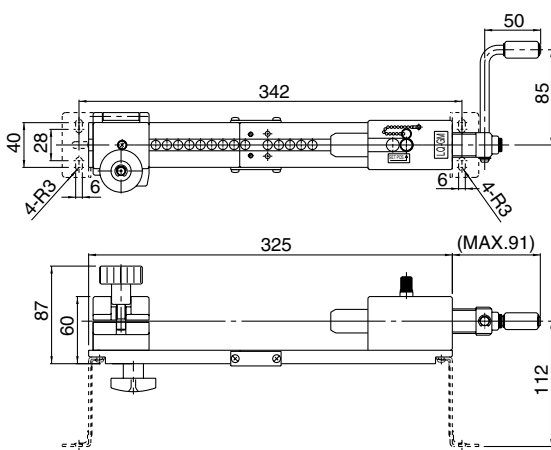
LQ-GJ



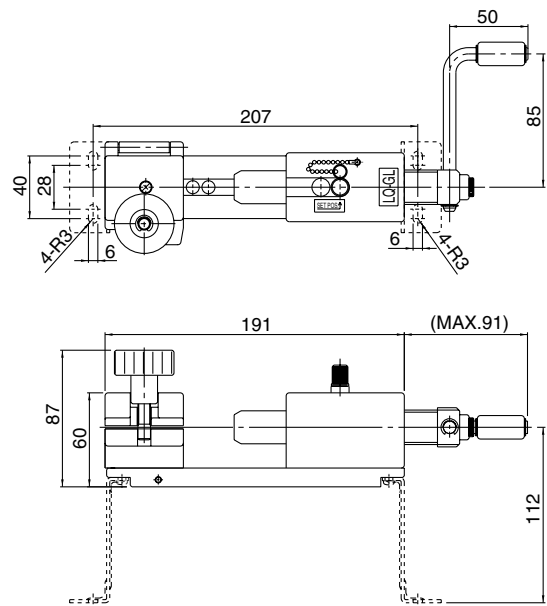
LQ-GK



LQ-GM



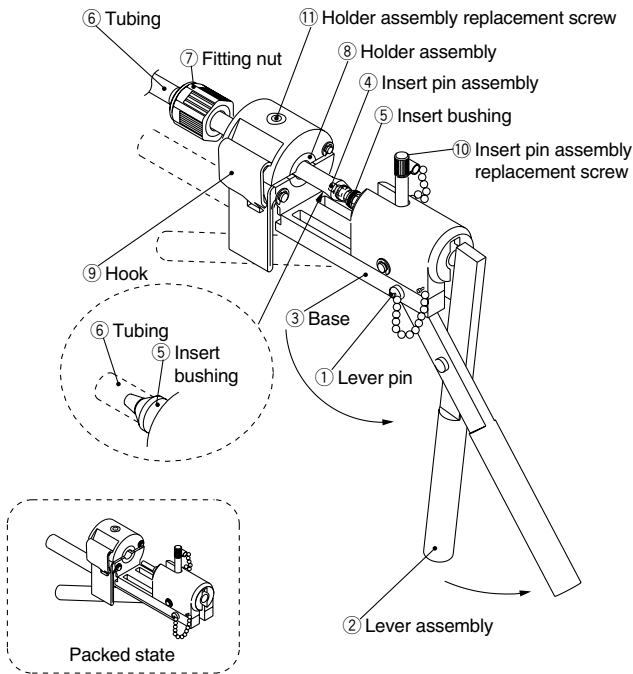
LQ-GL



Fitting Assembly Procedure

Assemble fittings following the procedure shown below.

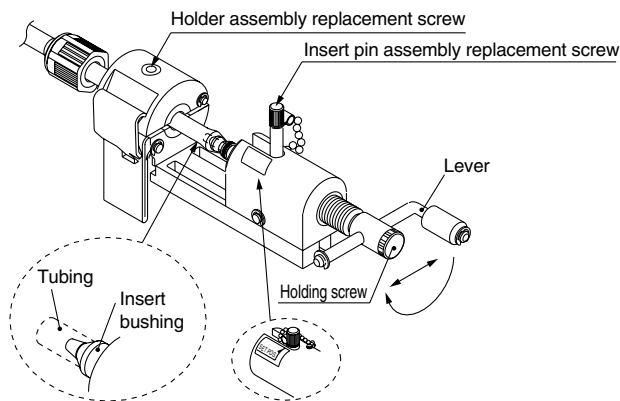
J type



J type fitting assembly procedure

- 1 Pull out the lever pin ①. Rotate the lever assembly ② to align the holes on the lever assembly ② and the base ③. Insert the lever pin ① into the holes to fix the lever assembly ②.
 - 2 Place the insert bushing ⑤ on the insert pin assembly ④.
 - 3 Cut the end of the tubing ⑥ at a right angle and pass it through the fitting nut ⑦. After placing the tubing ⑥ in the holder assembly ⑧, push it onto the insert bushing ⑤ until it stops and clamp it with the hook ⑨.
- ⚠ Caution**
- When the tubing ⑥ is curved, straighten it out before using it.
 - The tubing ⑥ may slip if there is oil or dust, etc., on the holder assembly ⑧. Remove the contamination using alcohol or another suitable cleaner.
- 4 Press the insert bushing ⑤ into the tubing ⑥ by turning the lever assembly ②.
 - 5 To replace the insert pin assembly ④ and holder assembly ⑧, use the insert pin assembly replacement screw ⑩ and the holder assembly replacement screws ⑪, respectively.

K type




K type fitting assembly procedure

- For procedure to set and press fit the insert pin assembly, refer to L, M type fitting assembly procedures.
- For procedure to set the tubing, refer to J type procedure.

- 1 } Refer to J type assembly procedure.
- 5 }
- 6 Tighten the fitting nut ⑦ until it reaches the prescribed position on the body (end face). As a guide, refer to the proper tightening torques shown below.

Nut tightening torque for piping

Body class	Torque (Nm)	
	LQ1	LQ2
2	0.3 to 0.4	1.5 to 2.0

 Note 1) In case of body class 1, the nut should be tightened manually.

⚠ Precautions on installation

- Be careful not to scratch or dent the seal of the insert bushing. (Refer to the illustration on the left.)
- When the insert bushing inserted, its tubing end should be closer to seal side than the minimum position. (Refer to the illustration on the left.)

