

Compact Cylinder with Air Cushion and Lock

Series *RLQ*

ø32, ø40, ø50, ø63

How to Order

RLQ B 32 50 M F

With auto switch RDLQ B 32 50 M F F9BW

Built-in auto

Mounting

B	Through hole (standard)
A	Both ends tapped
L	Foot type
F	Front flange type
G	Rear flange type
D	Double clevis type

Bore size

32	32 mm
40	40 mm
50	50 mm
63	63 mm

Port thread type

Nil	Rc
TN	NPT
TF	G

Cylinder stroke (mm)
Refer to the standard stroke table on page 2.

Body option

Nil	Rod end male threads (standard)
M	Rod end male threads

Locking direction

F	Extension locking
B	Retraction locking

Auto switch

Without auto switch (Cylinder with built-in magnet)

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

* Select auto switch models from the table below.
* The auto switches are included when shipped (unmounted).

By-pass piping

Nil	R	L
None (Emergency stop)	With by-pass piping, right-hand piping (Drop prevention)	With by-pass piping, left-hand piping (Drop prevention)

* The right and left indicate the piping directions viewed from the front.
* When no by-pass piping is used (when the product is used for emergency stops), solenoids for unlocking are necessary.
* For detailed information, please refer to "Pneumatic Circuit" in Specific Product Precautions on page 21.

Applicable auto switches: Refer to pages 5.3-1 through 5.3-75 of Best Pneumatics Vol.2 for detailed auto switch specifications.

Type	Special function	Electrical entry direction	Indicator	Wiring (output)	Load voltage		Rail mounting		Direct mount		Lead-wire length* (m)				Pre-wired connector	Applicable load		
					DC	AC	ø32 to ø63		ø32 to ø63		0.5 (Nil)	3 (L)	5 (Z)	None (N)		IC circuit	Relay PLC	
							Perpendicular	In-line	Perpendicular	In-line								
Reed switch	—	Grommet	Yes	3-wire (NPN equiv.)	—	5 V	—	A76H	A96V	A96	●	●	—	—	—	IC circuit	—	
				2-wire	24 V	12 V	200 V	A72	A72H	—	—	●	●	—	—	—	—	Relay PLC
								A73	A73H	—	—	●	●	●	—	—		
								—	—	A93V	A93	●	●	—	—	—		
Solid state switch	—	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	F7NV	F79	F9NV	F9N	●	●	○	—	○	IC circuit	Relay PLC	
				3-wire (PNP)			F7PV	F7P	F9PV	F9P	●	●	○	—	○			
		Connector		2-wire	12 V		J79C	—	—	—	●	●	●	●	—	—		—
							A79W	—	—	—	●	●	—	—	—			
		Grommet		2-wire	12 V		F7NWV	F79W	F9NWV	F9NW	●	●	○	—	○	—		○
							—	F7PW	F9PWV	F9PW	●	●	○	—	○	—		
							F7BWW	J79W	F9BWW	F9BW	●	●	○	—	○	—		
							—	F7BA	—	F9BA	—	●	○	—	○	—		
							F7BAV	—	—	—	—	●	○	—	○	—		
							—	F79F	—	—	●	●	○	—	○	—		
—	4-wire (NPN)	—	—	—	—	●	●	○	—	○	—	—						

Lead wire length symbol 0.5 m ... Nil (Example) A73C 3 m ... L (Example) A73CL 5 m ... Z (Example) A73CZ None ... N (Example) A73CN *Solid state switches marked with a "○" are produced upon receipt of order.

• Besides the models in the above table, there are some other auto switches that are applicable. For more information, refer to page 18.

Compact Cylinder with Air Cushion and Lock *Series RLQ*



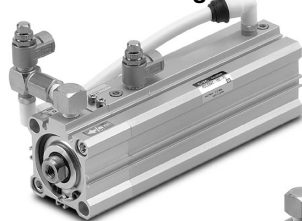
Cylinder Specifications

Bore size (mm)	32	40	50	63
Fluid	Air			
Proof pressure	1.5 MPa			
Maximum operating pressure	1.0 MPa			
Minimum operating pressure	0.2 MPa (Note)			
Ambient and fluid temperature	Without auto switch: -10 to 70°C (with no freezing) With auto switch: -10 to 60°C (with no freezing)			
Lubrication	Non-lube			
Rod end thread tolerance	JIS class 2			
Stroke length tolerance	$^{+1.0}_0$ mm			
Piston speed	50 to 500 mm/s			
Port size (Rc, NPT, G)	1/8		1/4	

Note) The minimum operating pressure of the cylinder is 0.1 MPa when the cylinder and lock are connected to separate ports.

With by-pass piping

Extension locking



Retraction locking



Lock Specifications

Bore size (mm)	32	40	50	63
Locking action	Spring locking (exhaust locking)			
Unlocking pressure	0.2 MPa or more			
Locking pressure	0.05 MPa or less			
Locking direction	One direction (either extension locking or retraction locking)			
Maximum operating pressure	1.0 MPa			
Unlocking port Port size	Rc	1/8		
	NPT			
	G	M5 x 0.8		
Holding force N (Maximum static load)	402	629	982	1559

Standard Strokes

Bore size (mm)	Standard strokes (mm)
32, 40	20, 25, 30, 40, 50, 75, 100
50, 63	30, 40, 50, 75, 100

Manufacture of intermediate strokes

Method	Special body type	
Ordering	Please refer to How to Order for the standard part numbers (page 1).	
Description	Available in stroke increments of 1 mm, using a special body for the specified stroke.	
Stroke range	Bore size (mm)	Stroke range (mm)
	32, 40	21 to 99
	50, 63	31 to 99
Example	Part number: RLQB32-47-B A special tube is manufactured for a 47 mm stroke.	

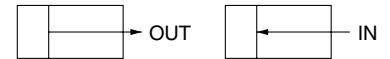
Effective cushion length

Bore size (mm)	32	40	50	63
Effective cushion length (mm)	6.6	6.6	7.1	7

Allowable kinetic energy

For the allowable kinetic energy, please refer to "Selection" from page 20.

Series RLQ



Theoretical Output

Unit: N

Metal Bracket Part No.

Bore size (mm)	Note 1)		Double clevis
	Foot	Flange	
32	CLQ-L032	CLQ-F032	CLQ-D032
40	CLQ-L040	CLQ-F040	CLQ-D040
50	CLQ-L050	CLQ-F050	CLQ-D050
63	CLQ-L063	CLQ-F063	CLQ-D063

Note 1) When ordering foot brackets, order 2 pieces per cylinder.
 Note 2) The following parts are included with each mounting bracket.
 Foot, Flange/Body mounting bolts
 Double clevis/Clevis pins, C-type snap ring for axis, Body mounting bolts, Flat washer
 Note 3) Clevis pins and snap rings are included with the double clevis type.

Bore size (mm)	Operating direction	Operating pressure (MPa)		
		0.3	0.5	0.7
32	IN	181	302	422
	OUT	241	402	563
40	IN	317	528	739
	OUT	377	628	880
50	IN	495	825	1150
	OUT	589	982	1370
63	IN	841	1400	1960
	OUT	935	1560	2180

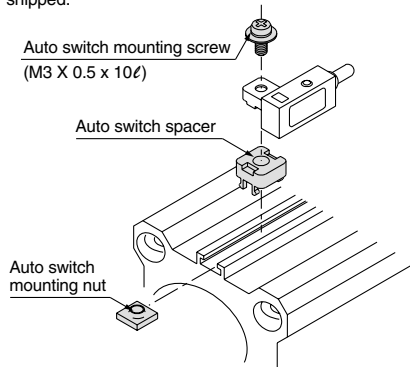
Weight of auto switch mounting bracket/ Part No. (Rail mounting)

Bore size (mm)	Mounting bracket Part No.	Note
32, 40 50, 63	BQ-2	<ul style="list-style-type: none"> Switch mounting screw (M3 x 0.5 x 10ℓ) Switch spacer Switch mounting nut

Applicable switch	
Reed switch	Solid state switch
D-A7□, A80	D-F7□, J79
D-A73C, A80C	D-F7□V
D-A7□H, A80H	D-J79C
D-A79W	D-F7□W, J79W
	D-F7□WV
	D-F7BAL, F7BAVL
	D-F7□F
	D-F7NTL

[Stainless steel mounting screw kit]
 Use the following stainless steel mounting screw kit (including nuts) as required by the operating environment.
 (Auto switch spacer must be ordered separately.)
BBA2: For D-A7/A8/F7/J7

The above stainless steel screw kit is used for water resistant auto switch types D-F7BAL and F7BAVL when they are shipped mounted on a cylinder.
 Also, BBA2 is included when an auto switch alone is shipped.



When auto switches are mounted, add the weight of the auto switch and mounting bracket multiplied by the quantity.

Auto switch mounting bracket weight

Mounting bracket part No.	Bore	Weight (g)
BQ-2	ø32 to ø63	1.5

Refer to pages 5.3-1 through 5.3-75 of Best Pneumatics Vol. 2 for the auto switch weight.

Weight

Basic weight: Mounting hole through (Type B)

Unit: (g)

Bore size (mm)	Standard strokes (mm)						
	20	25	30	40	50	75	100
32	531	552	575	620	665	779	889
40	675	698	721	768	814	929	1044
50	—	—	1200	1272	1344	1525	1705
63	—	—	1603	1683	1763	1961	2159

Basic weights: Mounting hole double end tapped (type A)

Unit: (g)

Bore size (mm)	Standard strokes (mm)						
	20	25	30	40	50	75	100
32	531	552	576	622	669	788	901
40	708	734	759	810	861	993	1120
50	—	—	1258	1338	1416	1621	1819
63	—	—	1756	1849	1941	2183	2412

Additional weight

Unit: (g)

Bore size (mm)	32	40	50	63
Magnet	11	13	14	22
Rod end male threads	Threads	26	27	53
	Nut	17	17	32
Foot (including mounting bolt)	137	149	221	288
Front flange type (including mounting bolt)	174	208	351	523
Rear flange type (including mounting bolt)	159	192	326	498
Double clevis type (including pin, snap ring, bolt and flat washer)	145	190	373	518
With by-pass piping	149	149	263	263

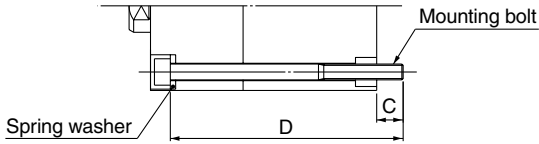
Calculation (example) **RLQD32-20M-B**

- Basic weight: RLQA32-20-□ 531 g
 - Additional weight: Magnet 11 g
 - Rod end male threads 43 g
 - Double clevis 145 g
- 730 g

Mounting bolt for R□LQB

Mounting/Mounting bolts are available for the through hole type R□LQB.
Ordering: Prefix "Bolt" to the bolt to be used.

Example) Bolt M5 x 90ℓ 2 pcs.

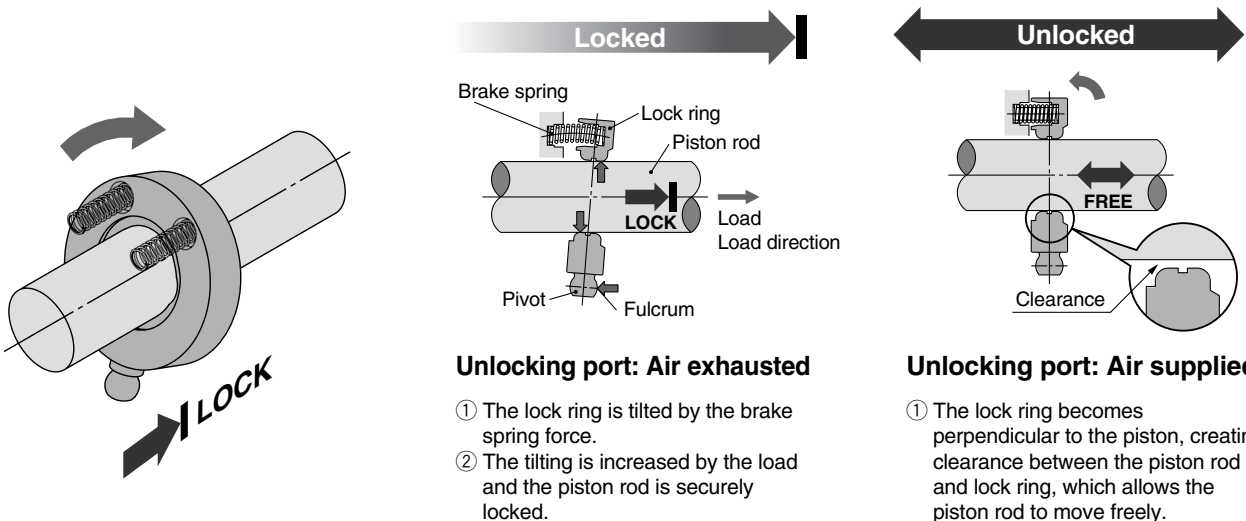


Note) When mounting ø50 to ø63 cylinders from the rod side, be sure to use the attached flat washers because the bearing surface is limited.

R□LQB

Model	C	D	Mounting bolt
R□LQB32-20	8	90	M5 x 90ℓ
R□LQB32-25		95	M5 x 95ℓ
R□LQB32-30		100	M5 x 100ℓ
R□LQB32-40		110	M5 x 110ℓ
R□LQB32-50		120	M5 x 120ℓ
R□LQB32-75		145	M5 x 145ℓ
R□LQB32-100		170	M5 x 170ℓ
R□LQB40-20	9	100	M5 x 100ℓ
R□LQB40-25		105	M5 x 105ℓ
R□LQB40-30		110	M5 x 110ℓ
R□LQB40-40		120	M5 x 120ℓ
R□LQB40-50		130	M5 x 130ℓ
R□LQB40-75		155	M5 x 155ℓ
R□LQB40-100	13.5	180	M5 x 180ℓ
R□LQB50-30		120	M6 x 120ℓ
R□LQB50-40		130	M6 x 130ℓ
R□LQB50-50		140	M6 x 140ℓ
R□LQB50-75		165	M6 x 165ℓ
R□LQB50-100	12.5	190	M6 x 190ℓ
R□LQB63-30		125	M8 x 125ℓ
R□LQB63-40		135	M8 x 135ℓ
R□LQB63-50		145	M8 x 145ℓ
R□LQB63-75		170	M8 x 170ℓ
R□LQB63-100		195	M8 x 195ℓ

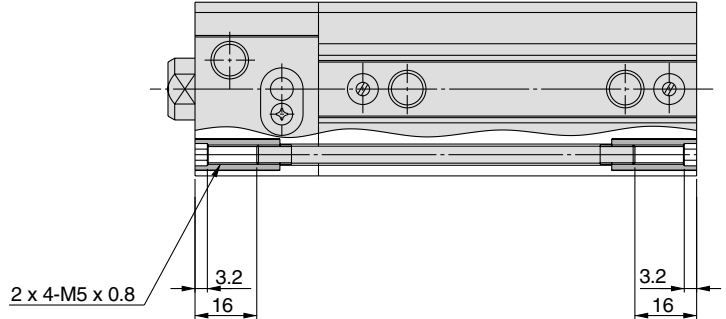
Working principle



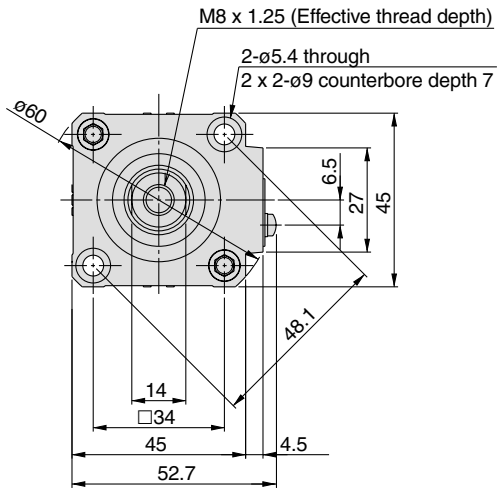
Series RLQ

Dimensions/ $\phi 32$ (Emergency Stop)

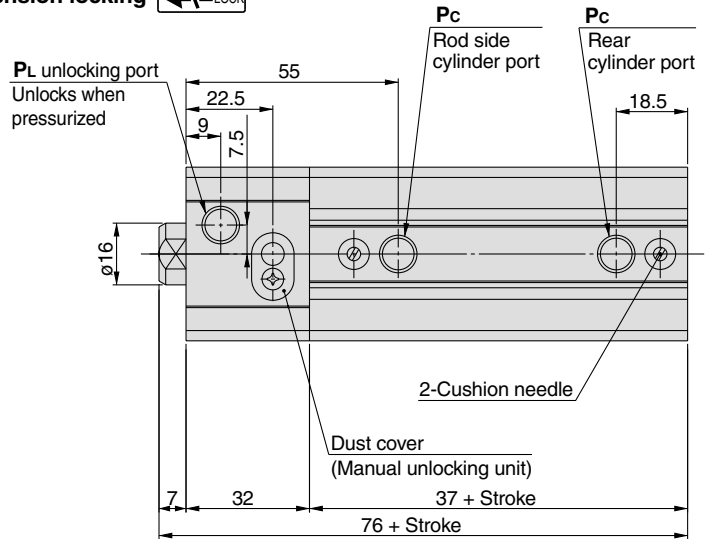
Both ends tapped: R□LQA32



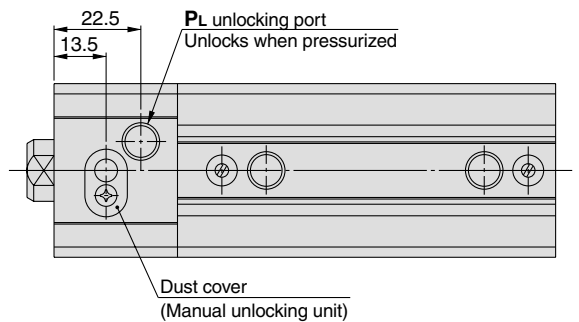
Standard (through hole): R□LQB32



Extension locking

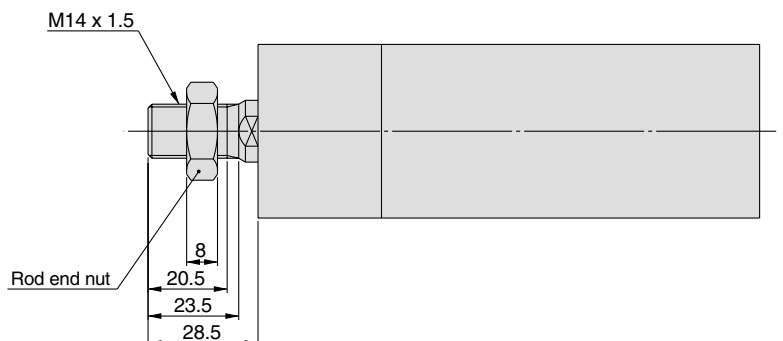


Retraction locking



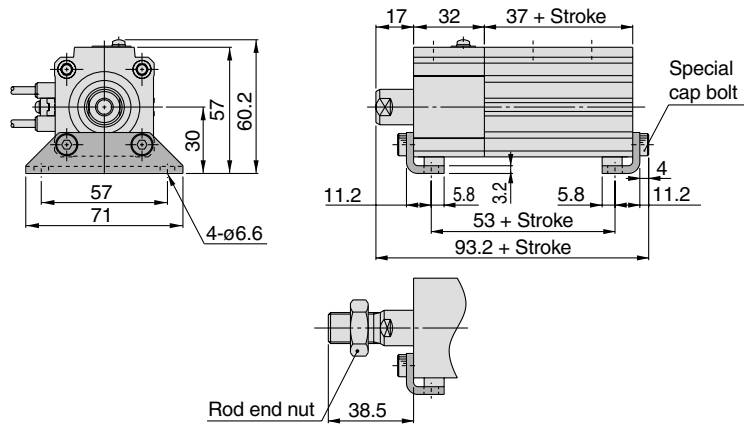
Port thread type	Pc	PL
Rc	1/8	1/8
NPT		1/8
G		M5 x 0.8

Rod end male threads

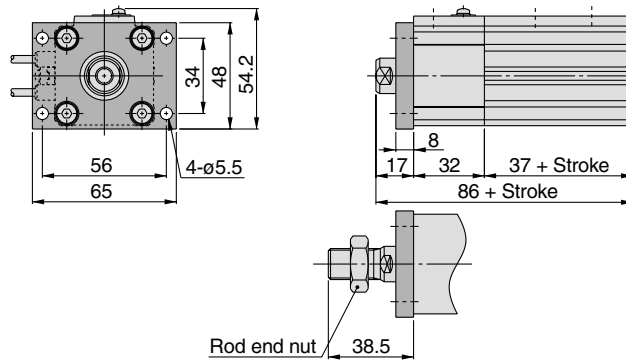


Dimensions/ $\phi 32$ (Emergency Stop)

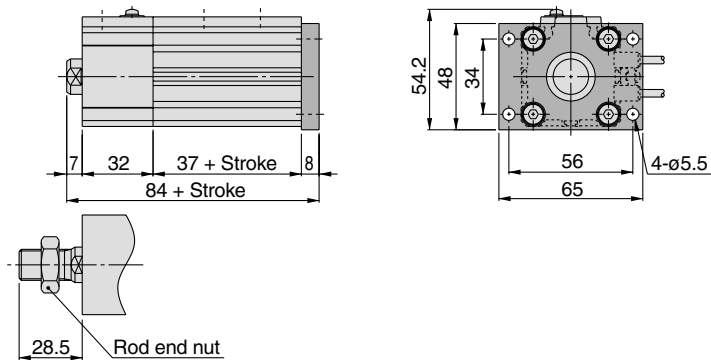
Foot type/R□LQL32



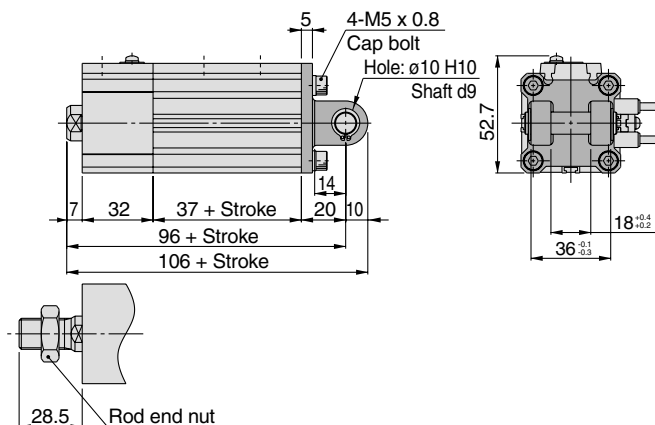
Front flange type/R□LQF32



Rear flange/R□LQG32



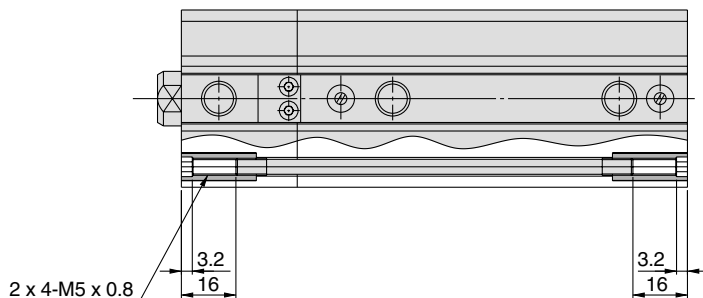
Double clevis/R□LQD32



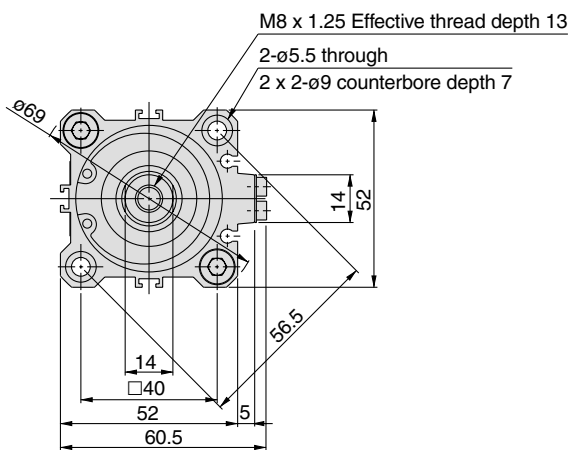
Series RLQ

Dimensions/ $\phi 40$ (Emergency Stop)

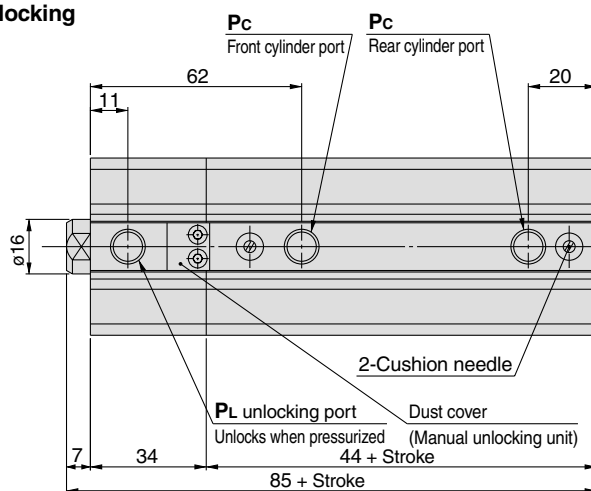
Both ends tapped/R□LQA40



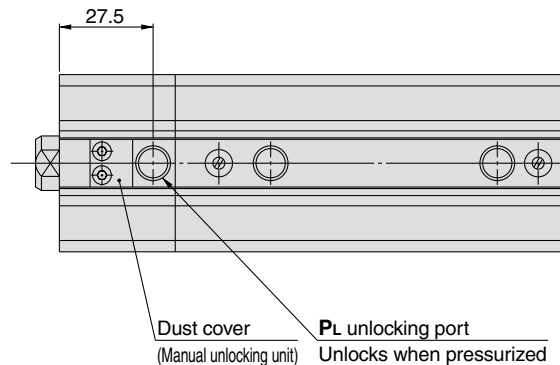
Standard type (through hole)/R□LQB40



Extension locking

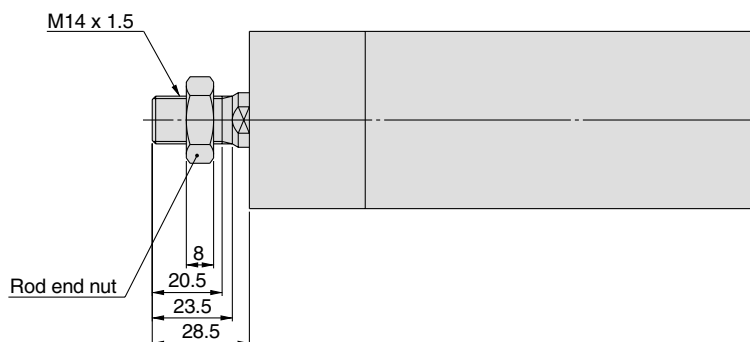


Retraction locking



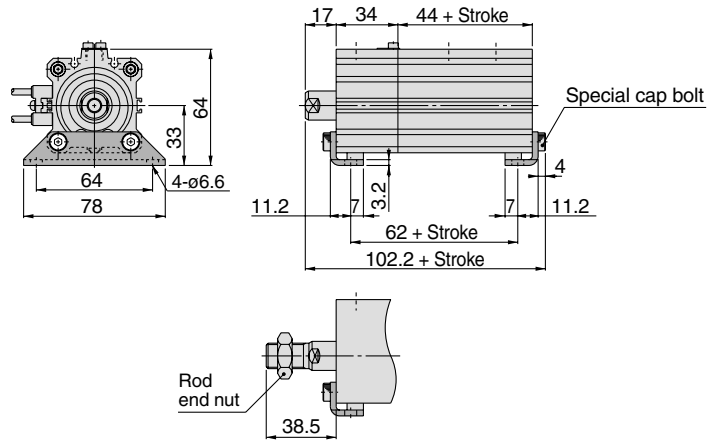
Port thread type	Pc	PL
Rc	1/8	1/8
NPT		
G		M5 x 0.8

Rod end male threads

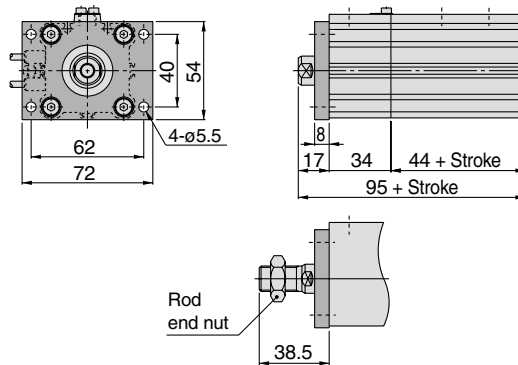


Dimensions/ $\phi 40$ (Emergency Stop)

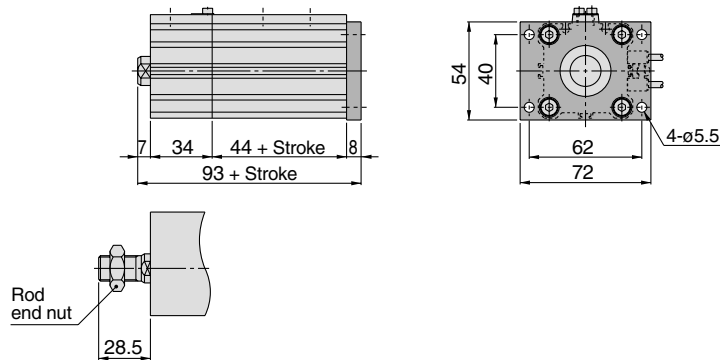
Foot/R□LQL40



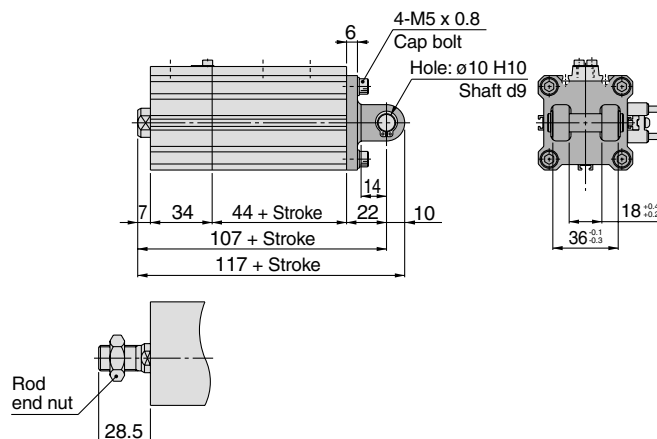
Front flange/R□LQF40



Rear flange/R□LQG40



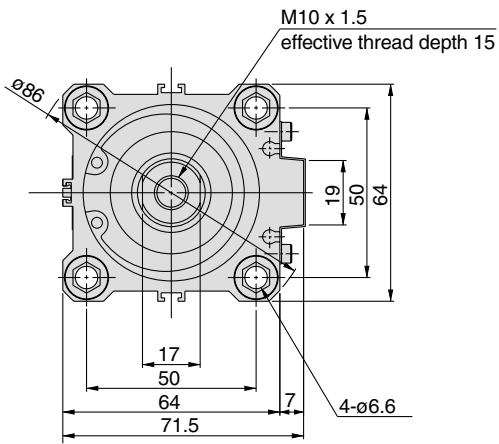
Double clevis/R□LQD40



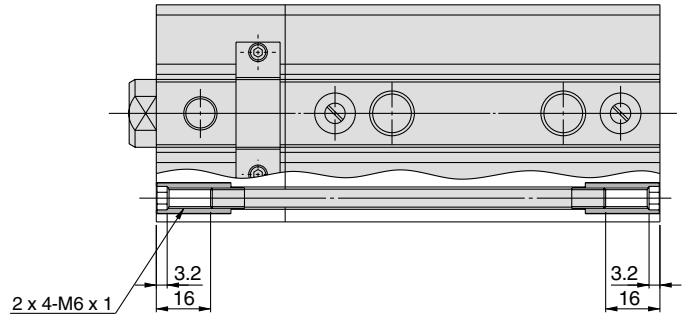
Series RLQ

Dimensions/ø50 (Emergency Stop)

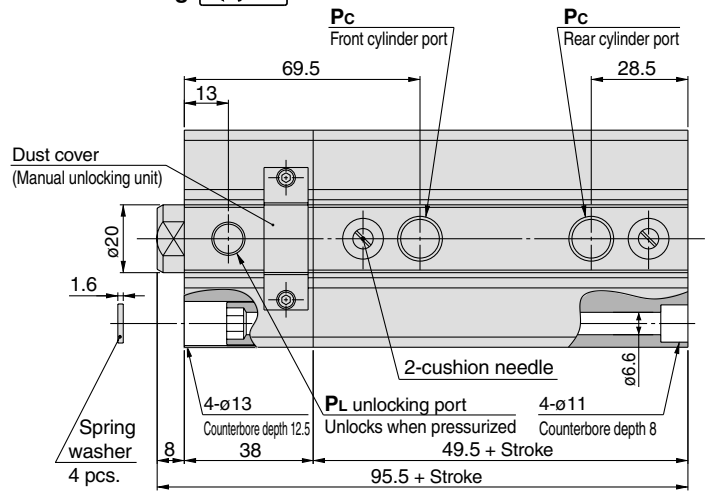
Standard (through)/R□LQB50



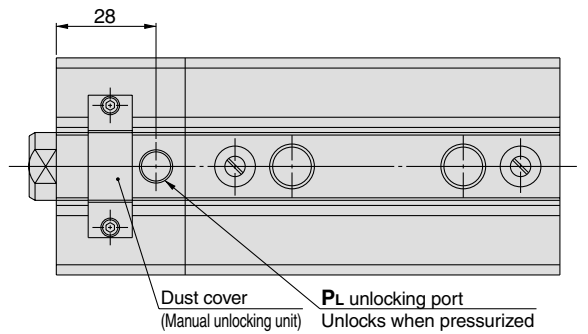
Both ends tapped/R□LQA50



Extension locking

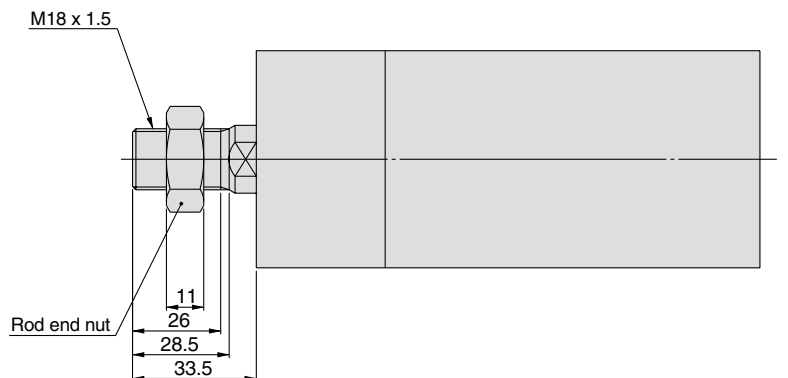


Retraction locking



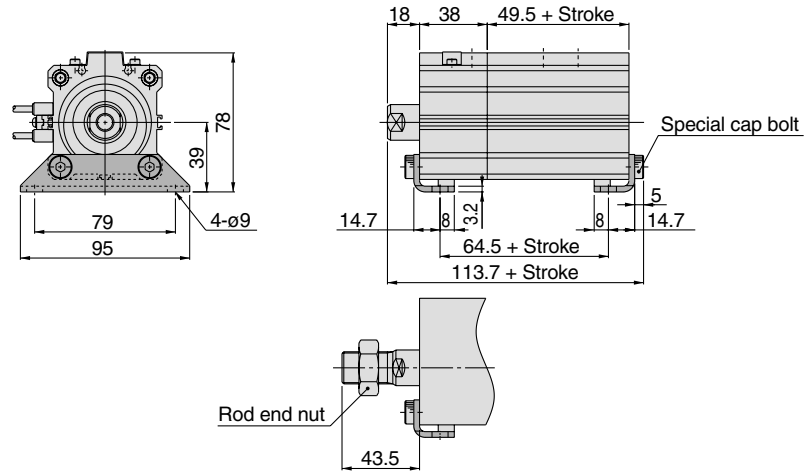
Port thread type	Pc	PL
Rc	1/4	1/8
NPT		
G		M5 x 0.8

Rod end male threads

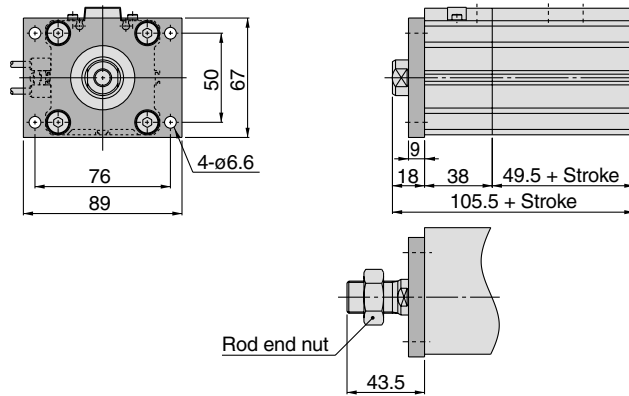


Dimensions/ $\phi 50$ (Emergency Stop)

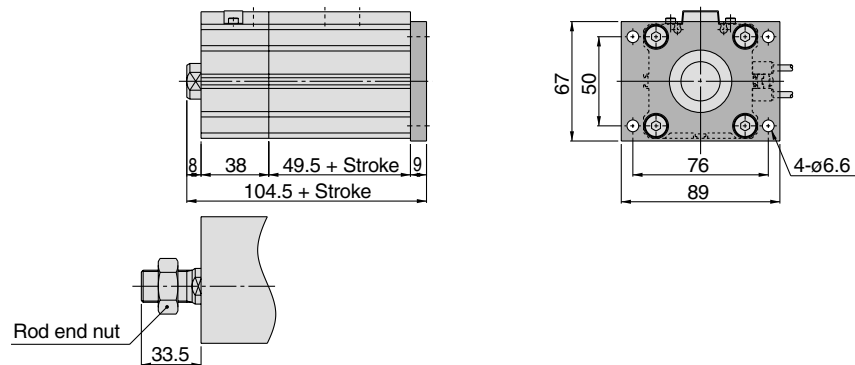
Foot type/R□LQL50



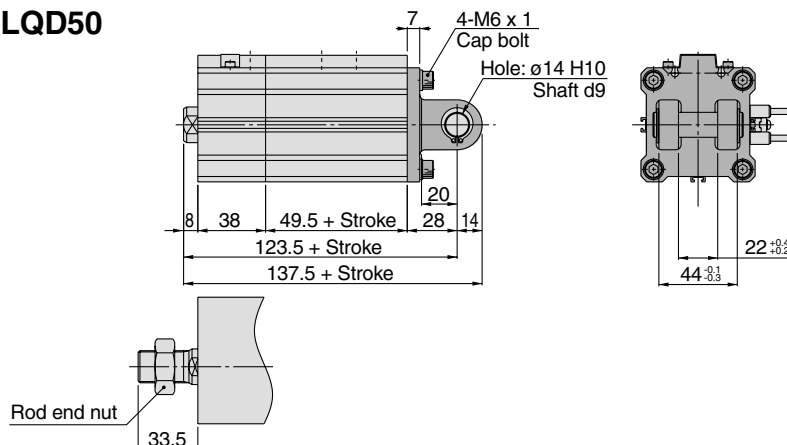
Front flange type/R□LQF50



Rear flange/R□LQG50



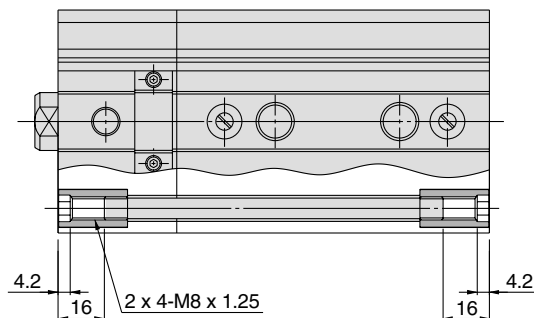
Double clevis/R□LQD50



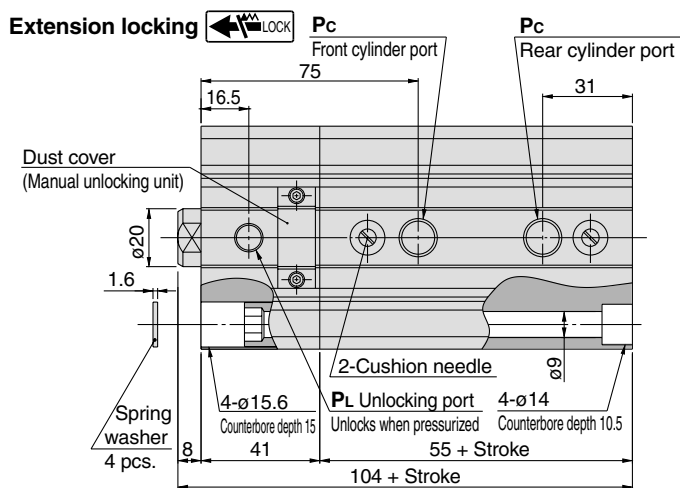
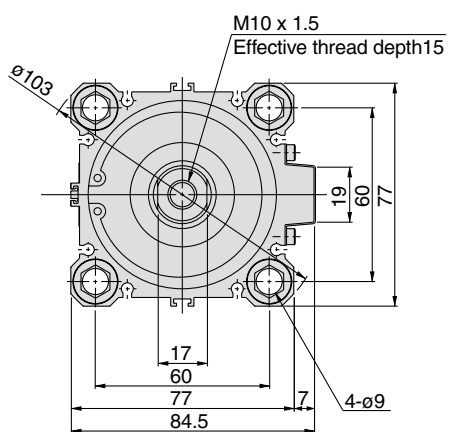
Series RLQ

Dimensions/ $\phi 63$ (Emergency Stop)

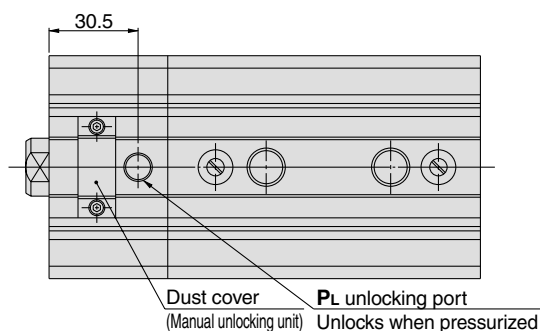
Both ends tapped/R□LQA63



Standard (through hole)/R□LQB63

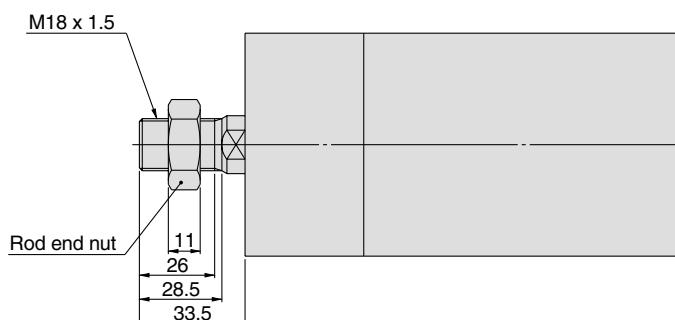


Retraction locking



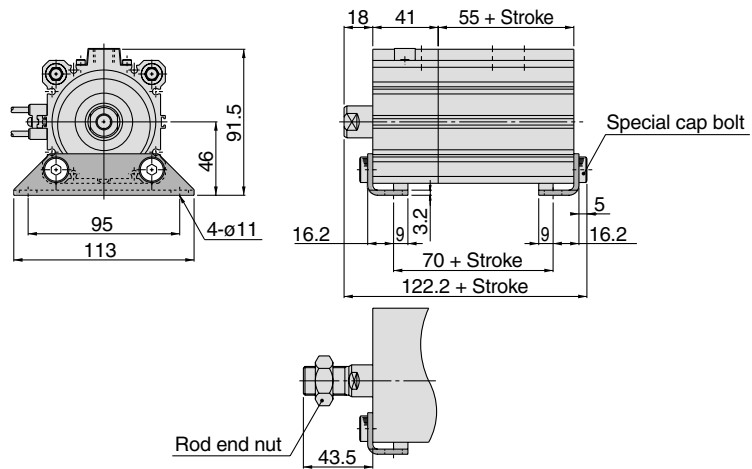
Port thread type	Pc	PL
Rc	1/4	1/8
NPT		
G		M5 x 0.8

Rod end male threads

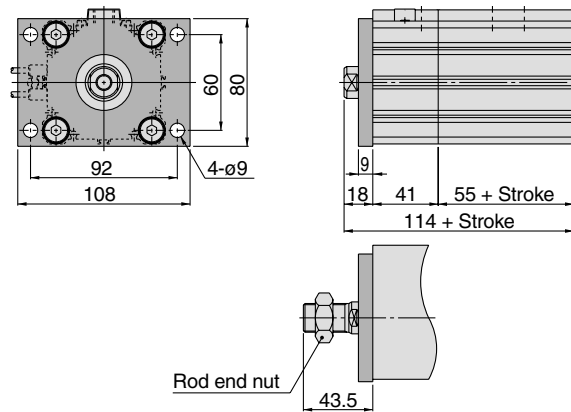


Dimensions/ $\phi 63$ (Emergency Stop)

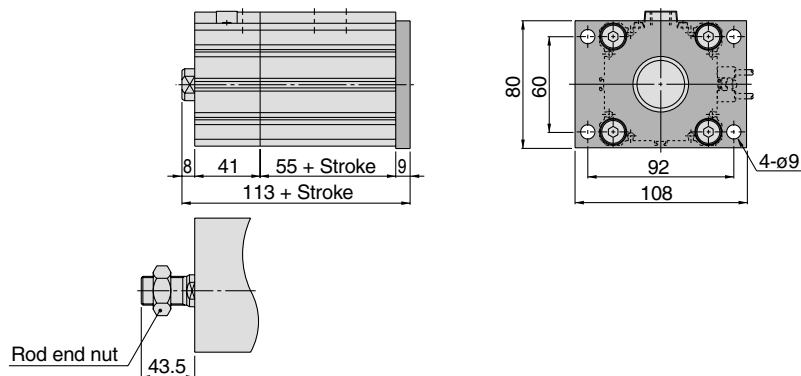
Foot type/R□LQL63



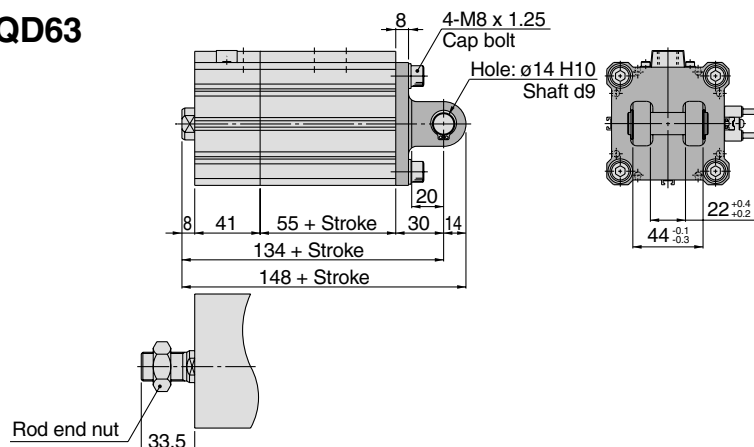
Front flange type/R□LQF63



Rear flange/R□LQG63



Double clevis/R□LQD63

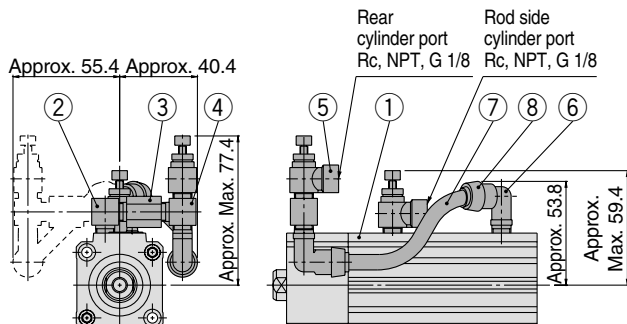


Series RLQ

Dimensions/Cylinder with By-Pass Piping

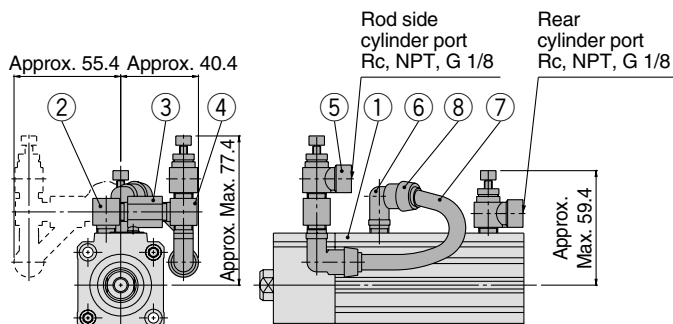
R□LQB32-F□

Extension locking, Right-hand piping
(The dotted lines illustrate the left-hand piping.)



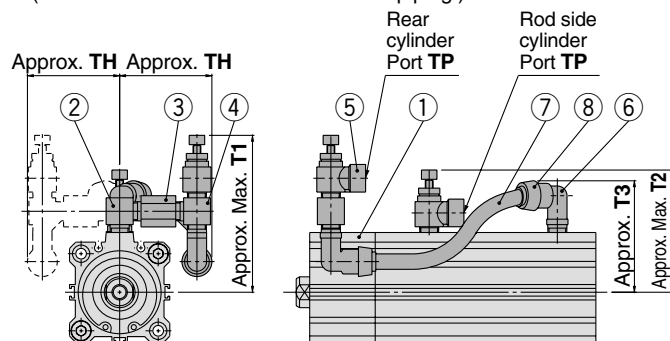
R□LQB32-B□

Retraction locking, Right-hand piping
(The dotted lines illustrate the left-hand piping.)



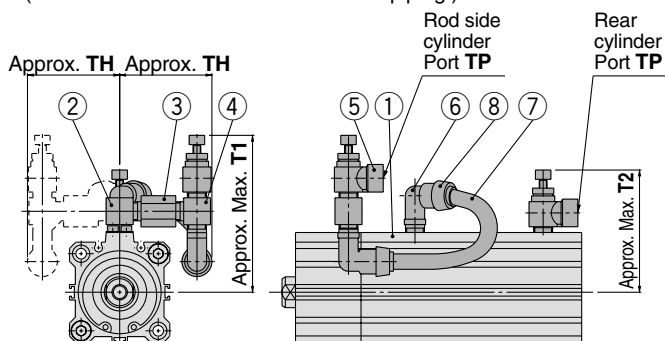
R□LQB40/50/63-F□

Extension locking, Right-hand piping
(The dotted lines illustrate the left-hand piping.)



R□LQB40/50/63-B□

Retraction locking, Right-hand piping
(The dotted lines illustrate the left-hand piping.)



Description	T1	T2	T3	TH	TP
RLQ40	81.4	63.4	57.8	47.9	Rc, NPT, G 1/8
RLQ50	93.3	73.8	67.8	57.3	Rc, NPT, G 1/4
RLQ63	99.8	80.3	74.3	57.3	Rc, NPT, G 1/4

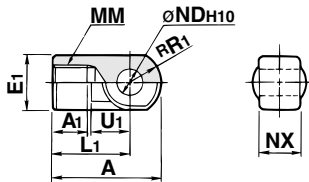
Cylinder with by-pass piping component parts

No.	Description	Quantity	Part No.
1	Compact Cylinder with Air Cushion and Lock	1	
2	PT elbow	1	
3	Restrictor	1	
4	PT tee	1	
5	Metal speed controller	2	ø32, 40: AS2200-(N, F)01-S ø50, 63: AS2200-(N, F)02-S
6	Male elbow	2	ø32, 40: KRL06-01SW2 ø50, 63: KRL06-02SW2
7	By-pass tubing	1	TRB0604W
8	Spatter cover	2	KR-06C

Accessories

Single knuckle joint

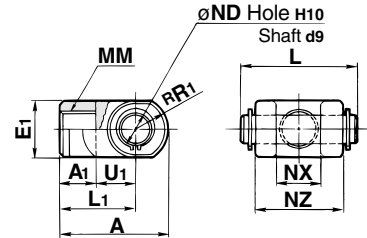
I-G04, I-G05



Material: Cast iron

Double knuckle joint

Y-G04, Y-G05



Material: Cast iron

Part No.	Applicable cylinder bore size (mm)	A	A ₁	E ₁	L ₁	MM	RR ₁	U ₁	ND	NX
I-G04	32, 40	42	14	ø22	30	M14 x 1.5	12	14	10 ^{+0.058} ₀	18 ^{-0.3} _{-0.5}
I-G05	50, 63	56	18	ø28	40	M18 x 1.5	16	20	14 ^{+0.070} ₀	22 ^{-0.3} _{-0.5}

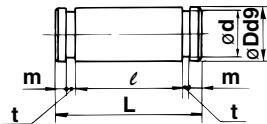
(mm)

Part No.	Applicable cylinder bore size (mm)	A	A ₁	E ₁	L ₁	MM	RR ₁	U ₁	ND	NX	NZ	L	Applicable pin Part No.
Y-G04	32, 40	42	16	ø22	30	M14 x 1.5	12	14	10 ^{+0.058} ₀	18 ^{+0.5} _{+0.3}	36	41.6	IY-G04
Y-G05	50, 63	56	20	ø28	40	M18 x 1.5	16	20	14 ^{+0.070} ₀	22 ^{+0.5} _{+0.3}	44	50.6	IY-G05

(mm)

Knuckle pin and snap ring are included.

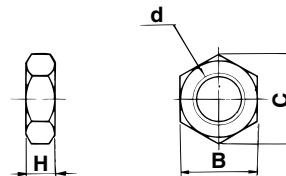
Knuckle Pin (Also used as double clevis pin)



Material: Carbon steel
(mm)

Part No.	Applicable cylinder bore size (mm)	D	L	d	l	m	t	Applicable Snap ring
IY-G04	32, 40	10 ^{-0.040} _{-0.075}	41.6	9.6	36.2	1.55	1.15	C type 10 for shaft
IY-G05	50, 63	14 ^{-0.050} _{-0.093}	50.6	13.4	44.2	2.05	1.15	C type 14 for shaft

Rod End Nut

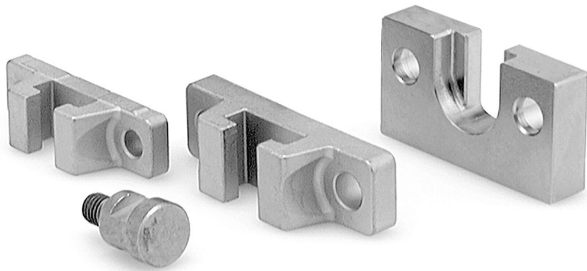


Material: Rolled steel
(mm)

Part No.	Applicable cylinder bore size (mm)	d	H	B	C
NT-04	32, 40	M14 x 1.5	8	22	25.4
NT-05	50, 63	M18 x 1.5	11	27	31.2

Series RLQ

Simple Joint/ø32 to ø63



Joint and mounting bracket (A type, B type) part no.

YA — 03

• Applicable air cylinder bore

03	ø32, ø40
05	ø50, ø63

• Mounting bracket

YA	A type mounting bracket
YB	B type mounting bracket
YU	Joint

Bore size (mm)	Joint	Applicable mounting bracket	
		A type mounting bracket	B type mounting bracket
32, 40	YU-03	YA-03	YB-03
50, 63	YU-05	YA-05	YB-05

Allowable eccentricity (mm)

Bore size	32	40	50	63
Eccentricity tolerance	±1			
Backlash	0.5			

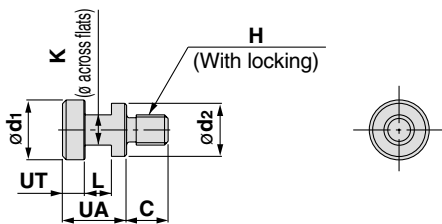
<How to order>

- Joints are not included with A type and B type mounting brackets. They must be ordered separately.

(Example)

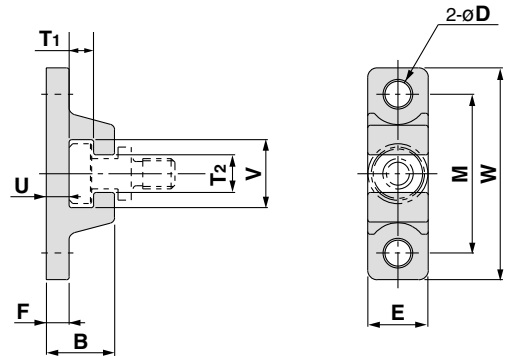
- Cylinder size ø40 Part number
- A type mounting bracket part number YA-03
- Joint YU-03

Joint



Part No.	Applicable bore size (mm)	UA	C	d1	d2	H	k	L	UT	Weight (g)
YU-03	32, 40	17	11	15.8	14	M8 x 1.25	8	7	6	25
YU-05	50, 63	17	13	19.8	18	M10 x 1.5	10	7	6	40

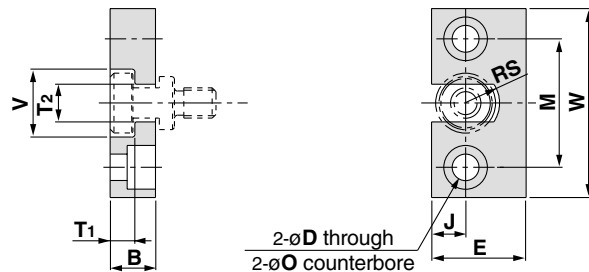
A type mounting bracket



Part No.	Bore size (mm)	B	D	E	F	M	T1	T2
YA-03	32, 40	18	6.8	16	6	42	6.5	10
YA-05	50, 63	20	9	20	8	50	6.5	12

Part No.	Bore size (mm)	U	V	W	Weight (g)
YA-03	32, 40	6	18	56	55
YA-05	50, 63	8	22	67	100

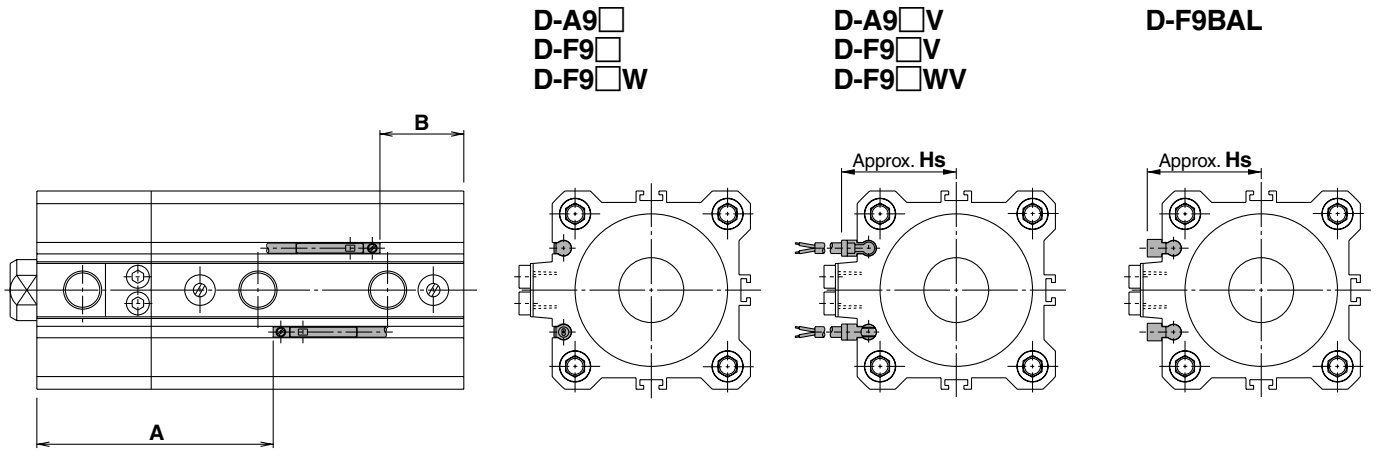
B type mounting bracket



Part No.	Bore size (mm)	B	D	E	J	M	O
YB-03	32, 40	12	7	25	9	34	11.5 depth 7.5
YB-05	50, 63	12	9	32	11	42	14.5 depth 8.5

Part No.	Bore size (mm)	RS	T1	T2	V	W	Weight (g)
YB-03	32, 40	9	6.5	10	18	50	80
YB-05	50, 63	11	6.5	12	22	60	120

Auto Switches/Proper Mounting Positions and Height for Stroke End Detection



Proper auto switch mounting position (mm)

Bore size (mm)	D-A9□ D-A9□V		D-F9□ D-F9□V D-F9□W D-F9□WV		D-F9BAL	
	A	B	A	B	A	B
	32	44.5	4.5	48.5	8.5	47.5
40	51	7	55	11	54	10
50	55	12.5	59	16.5	58	15.5
63	60.5	15.5	64.5	19.5	63.5	18.5

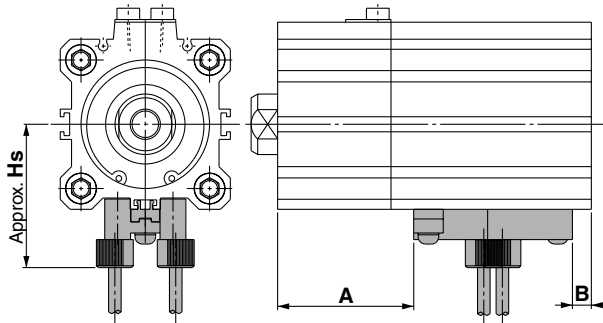
Auto switch mounting height (mm)

Bore size (mm)	D-A9□V	D-F9□V D-F9□WV	D-F9BAL
	HS	HS	HS
32	27	29	26.5
40	30.5	32.5	30
50	36.5	38.5	36
63	40	42	39.5

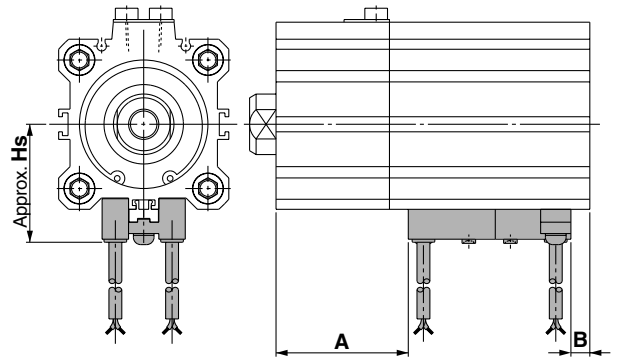
Series RLQ

Auto Switches/Proper Mounting Positions and Height for Stroke End Detection

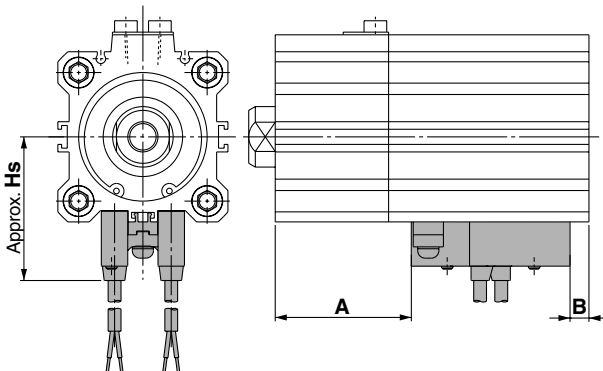
D-A73C
D-A80C
D-J79C



D-A7□
D-A80

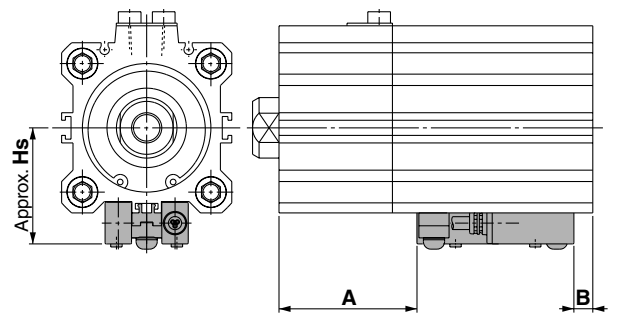


D-A79W
D-F7□WV
D-F7□V
D-F7□BAVL



D-A7□H
D-A80H
D-F7□
D-J79
D-F7□W

D-J79W
D-F7□F
D-F7NTL
D-F7BAL



Proper auto switch mounting position

(mm)

Bore size (mm)	D-A7□ D-A80		D-A7□H, A80H, A73C, A80C D-F7□, F7□V, F79F, J79 D-J79C, F7□W, F7□WV D-J79W, F7BAL, F7BAVL		D-A79W		D-F7LF		D-F7NTL	
	A	B	A	B	A	B	A	B	A	B
32	45.5	5.5	46	6	43	3	50	10	51	11
40	52	8	52.5	8.5	49.5	5.5	56.5	12.5	57.5	13.5
50	56	13.5	56.5	14	53.5	11	60.5	18	61.5	19
63	61.5	16.5	62	17	59	14	66	21	67	22

Auto switch mounting height

(mm)

Bore size (mm)	D-A7□ D-A80	D-A7□H, A80H D-F7□, J79, F7□W D-J79W, F7BAL D-F7□F, F7NTL	D-A73C D-A80C	D-F7□V D-F7□WV D-F7BAVL	D-J79C	D-A79W
	HS	HS	HS	HS	HS	HS
32	31.5	32.5	38.5	35	38	34
40	35	36	42	38.5	41.5	37.5
50	41	42	48	44.5	47.5	43.5
63	47.5	48.5	54.5	51	54	50

Operating range

Auto switch type	Bore size (mm)			
	32	40	50	63
D-A7□, A7□H D-A73C D-A80, A80H D-A80C	12	11	10	12
D-A79W	13	14	14	16
D-A9□, A9□V	9.5	9.5	9.5	11.5
D-F7□, F7□V D-J79, J79C D-F7□W, F7□WV D-J79W D-F7BAL, F7BAVL D-F7NTL, F79F	6	6	6	6.5
D-F7LF	7.5	7.5	7.5	8
D-F9□, F9□V D-F9□W, F9□WV D-F9BAL	5.5	5.5	5.5	6.5

* The operating ranges are provided as guidelines including hystereses and are not guaranteed values (assuming approximately ±30% variations). They may vary significantly with ambient environments.

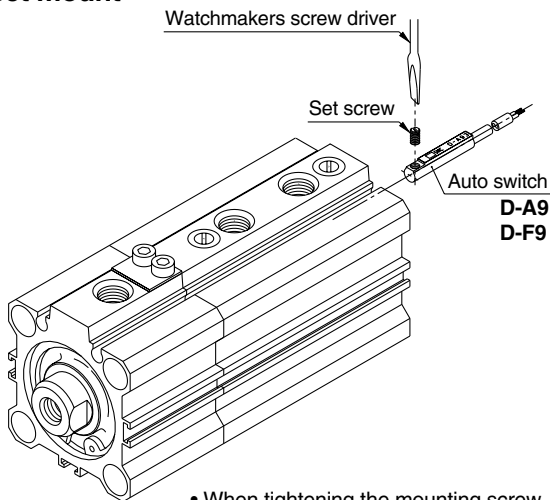
Minimum Auto Switch Mounting Stroke

Number of auto switch	(mm)			
	D-F7□V D-J79C D-F9□V	D-A7□ D-A80 D-A73C D-A80C D-A9□V	D-F7□WV D-F9□WV D-F7BAVL	D-A7□H D-A80H D-F7□ D-J79 D-F9□W
1 pc.	20	20	20	20
2 pcs.	20	20	20	20

Number of auto switch	(mm)			
	D-A79W	D-F7□W D-J79W D-F7BAL D-F79F D-F9BAL	D-F7LF	D-A9□ D-F9□
1 pc.	20	20	25	20
2 pcs.	20	20	25	20

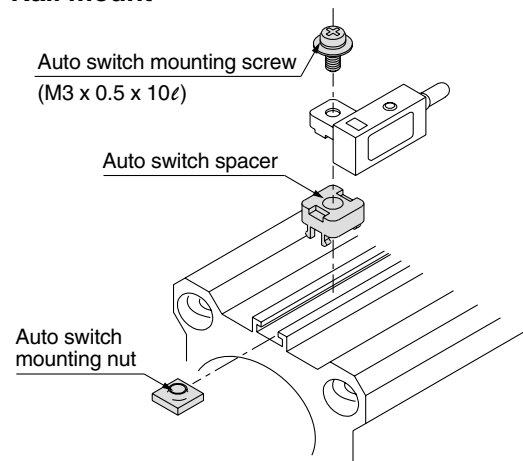
Auto Switch Mounting

Direct mount



- When tightening the mounting screw, use a watchmakers screw driver with a handle about 5 to 6 mm in diameter. Tighten with a torque of 0.10 to 0.20 N·m.

Rail mount



- Use a tightening torque of 0.5 to 0.7N·m for auto switch mounting screws.
- * Auto switch mounting brackets are packed together for cylinders with built-in magnets.

Besides the models listed in "How to Order" the following auto switches can be mounted. Refer to pages 5.3-1 through 5.3-75 of Best Pneumatics Vol. 2 for detailed specifications,

Auto switch type	Part No.	Electrical entry	Features	Applicable bore size
Reed switches	D-A80	Grommet (perpendicular)	Without indicator light	ø32 to ø63
	D-A80H	Grommet (in-line)		
	D-A80C	Connector (perpendicular)		
	D-A90	Grommet (in-line)		
	D-A90V	Grommet (perpendicular)		
Solid switches	D-F7NTL	Grommet (in-line)	With timer	

* D-F7NTL is also available with pre-wired connector.

* Normally closed type (NC = b contact) solid state auto switches are also available (D-F9G, F9H).