

Stopper Cylinder

Series RSQ (Fixed mounting height)
 ø12, ø16, ø20, ø32, ø40, ø50

Series RSG (Adjustable mounting height)
 ø40, ø50

Realize labor saving and automation of conveyor line

A through-hole style and a both ends tapped style are available.
Series RSQ (Fixed mounting height type)
 ø12, ø16, ø20, ø32, ø40, ø50

Mounting position can be adjusted arbitrarily by changing the attached flange height.
Series RSG (Adjustable mounting height type)
 ø40, ø50

Numerous variations

It is possible to select option for many applications.
 Style: Fixed mounting height (RSQ), Adjustable mounting height (RSG)
 Action: Double acting, Single acting (Spring extend), Double acting with spring
 Rod end configuration: Round bar type, Chamfered type, Roller type, Lever type
 Mounting: Through-hole, Both ends tapped

Equipped with an easy-to-maintain shock absorber.

The shock absorber incorporated in the lever type is adjustment-free and easy-to-maintain. (ø32, ø40, ø50)

Auto switch option available

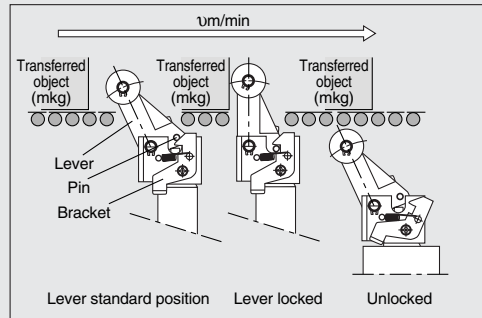
Compact auto switch mounting to enable miniaturization of machines and designs.

Lever type selected according to applications

- Prevention of repulsion by light pallets.....Locking mechanism
- Partial passing of work.....With cancel

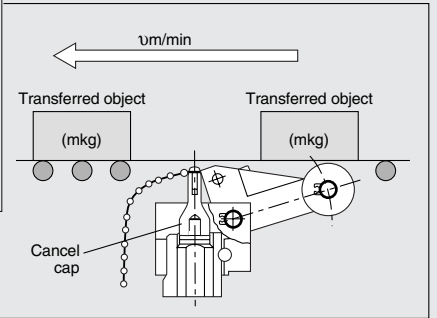


Lock Mechanism



Cancel Cap

(Mechanism to hold lever horizontally)



Series Variations

Series	Mounting	Action	Rod end configuration	Standard variations				Bore size (mm)	Standard stroke (mm)						
				Built-in magnet	With lock mechanism	With cancel	Built-in One-touch fittings		10	15	20	25	30		
RSQ	Through-hole	Double acting	Round bar type	•			•	12	•						
			Roller type	•			•	16	•	•					
			Chamfered type	•			•	20	•	•	•				
	Both ends tapped style	Double acting with spring loaded	Lever type Fixed	•			•	32	•	•	•				
			Lever type Adjustable	•	•		•	40			•	•	•		
			Single acting Spring extend	•		•	•	50			•	•	•	•	
RSG	Flange style	Double acting	Round bar type	•			•	40							
			Roller type	•			•								
			Chamfered type	•			•								
		Double acting with spring loaded	Lever type Fixed	•			•		50						
			Lever type Adjustable	•	•		•								
			Single acting Spring extend	•		•	•						•	•	•

- RE^A_B
- REC
- C□X
- C□Y
- MQ^Q_M
- RHC
- MK(2)
- RS^Q_G
- RS^H_A
- RZQ
- MI^W_S
- CEP1
- CE1
- CE2
- ML2B
- C¹/₅-S
- CV
- MVGQ
- CC
- RB
- J
- D-
- X
- 20-
- Data



Series RSQ/RSG

Specific Product Precautions

Be sure to read before handling.

Selection

Danger

1. Use within the range of specifications.

If using beyond the specifications, excessive impacts or vibrations could be applied to the stopper cylinder and might cause breakage.

Danger

1. Do not allow a pallet to collide with the cylinder when the lever is upright.

In the case of the lever type with built-in shock absorber, if the next pallet runs into the lever when it is in the upright position (after the shock absorber has assimilated energy), the cylinder body will receive the full energy of the impact, and this should not be permitted.

2. Do not apply pressure from the head side of a single acting type cylinder.

If air is supplied from the head side of a single acting cylinder, blow-by of the air will occur.

3. Do not scratch or gouge the sliding portion of a piston.

Quenching of the piston rod has not been performed. If there is a danger of scratching or nicking the piston rod due to sharp edges, etc. on the contact area of a pallet, the pallet should not be used, as this can cause a malfunction.

4. When using a stopper cylinder for intermediate stopping of a load connected directly to a cylinder, etc.

The operating ranges shown in this catalog apply only for stopping of a pallet on a conveyor. When using a stopper cylinder to stop a load connected directly to a cylinder, etc., the cylinder thrust will become a lateral load. In this case, refer to the instruction manual and select a cylinder remaining within the allowable energy and allowable lateral load ranges.

Mounting

Caution

1. Do not apply rotational torque to the cylinder rod.

In order to prevent rotational torque from acting upon the cylinder rod, mount it so that the contacting surfaces of the pallet and cylinder are parallel to one another.

When mounting a cylinder, tighten the body lock nut, and then tighten the set screws (2 locations) which are included with the lock nut. (Except RSQ)

Operation

Caution

1. In the case of the model with locking mechanism, do not apply an external force from the opposite side when the lever is locked.

When moving pallets during conveyor adjustments, first lower the cylinder.

2. Do not use oil, etc. on the sliding parts of the piston rod.

This can cause trouble with retraction or other malfunctions.

3. Do not get your hands caught during cylinder operation.

Since the lever section moves up and down when the cylinder is in operation, take sufficient care to avoid getting your hands caught between the rod cover and the lever holder.

4. Do not expose the shock absorber to machining oil, water, or dust.

This will cause the shock absorber to become damaged, leading to air leaks.

Maintenance

Caution

1. After the shock absorber has been replaced, tighten the set screw securely so that it makes contact with the threaded section of the shock absorber.

Tightening torque: 0.29 N·m

2. When changing the non-rotating direction, loosen the set screws (2 locations) in the cover (tube cover or rod cover), change the detent to the desired position, and then retighten.

Stopper Cylinder: Fixed Mounting Height

Series RSQ

ø12, ø16, ø20, ø32, ø40, ø50

How to Order

Without auto switch

RSQ **B** **20** **15** **D**

With auto switch

RSDQ **B** **20** **15** **D** **J79W**

Built-in magnet

Mounting style

B	Through-hole (Standard)
A	Both ends tapped style

Note 1) Since ø12 uses a common tube for both A and B, only B is used for part no. denotation.

Bore size

12	12 mm
16	16 mm
20	20 mm
32	32 mm
40	40 mm
50	50 mm

Piping

Nil	Screw-in piping
F	Built-in One-touch fittings ⁽²⁾

Note 2) Bore sizes available w/ One-touch fittings are ø20 to ø50.

Cylinder stroke (mm)

12	10
16	10, 15
20	10, 15, 20
32	10, 15, 20
40, 50	20, 25, 30

Auto switch

Nil	Without auto switch
S	2 pcs.
S	1 pc.

* For the applicable auto switch model, refer to the table below.
* Auto switches are shipped together, (but not assembled).

Rod end configuration

Symbol	Configuration	Application
Nil	Round bar type	—
K	Chamfered type	—
R	Roller type	—
L	Lever type (Non-adjustable) ⁽³⁾	Basic style
B	Lever type ⁽³⁾ (Energy absorbing Adjustable deformation)	—
C		With cancel cap
D		With lock mechanism
E		With lock & cancel

Note 3) The lever types are applicable only to bore sizes ø32, ø40 and ø50.

Action

D	Double acting
B	Double acting with spring loaded
T	Single acting (Spring extend)

Applicable Auto Switch/Refer to page 10-20-1 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Rail mounting		Direct mounting		Lead wire length (m)*				Pre-wire connector	Applicable load			
					DC	AC	ø16 to ø50		ø12, ø32 to ø50		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 equivalent)	—	5 V	—	A76H	A96V	A96	●	●	—	—	—	—	—		
				2-wire	—	—	200 V	A72	A72H	—	—	●	●	—	—	—	—	—	
					24 V	12 V	100 V	A73	A73H	—	—	●	●	●	—	—	—	—	—
						12 V	—	A73C	—	—	A93V	A93	●	●	—	—	—	—	—
						—	—	A79W	—	—	—	—	●	●	—	—	—	—	—
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	F7NV	F79	M9NV	M9N	●	●	○	—	○	—	—	
				3-wire (PNP)				F7PV	F7P	M9PV	M9P	●	●	○	—	○	—	—	
				2-wire				F7BV	J79	M9BV	M9B	●	●	○	—	○	—	—	
								J79C	—	—	—	●	●	●	●	—	—	—	
				Connector				3-wire (NPN)	24 V	5 V, 12 V	—	F7NWV	F79W	F9NWV	F9NW	●	●	○	—
		3-wire (PNP)			—	F7PW	F9PWV	F9PW				●	●	○	—	○	—		
		2-wire			F7B WV	J79W	F9B WV	F9BW				●	●	○	—	○	—	—	
					—	F7BA	—	F9BA				—	●	●	○	—	○	—	
		4-wire (NPN)			—	5 V, 12 V	—	F7BAV				—	—	—	—	●	●	○	—

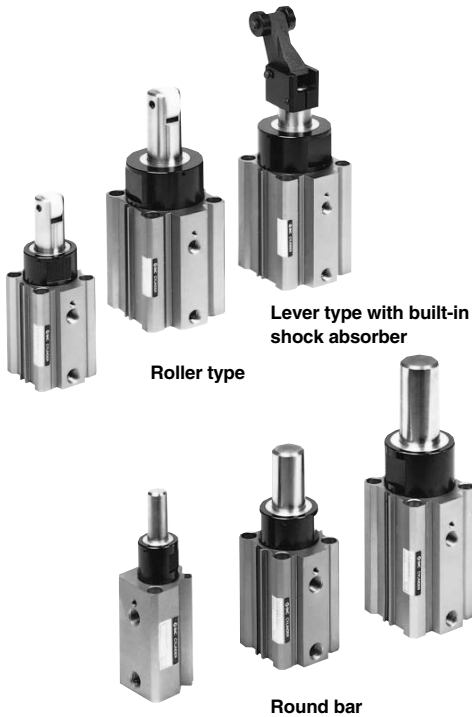
* Lead wire length symbols: 0.5 m..... Nil (Example) A73C
 3 m..... L (Example) A73CZ
 5 m..... Z (Example) A73CL
 None..... Z (Example) A73CN

* Solid state switches marked with "○" are produced upon receipt of order.

• Since there are other applicable auto switches than listed, refer to page 10-8-14 for details.
 • For details about auto switches with pre-wire connector, refer to page 10-20-66.

- RE^A_B
- REC
- C□X
- C□Y
- MQ^Q_M
- RHC
- MK(2)
- RS^Q_G
- RS^H_A
- RZQ
- MI^W_S
- CEP1
- CE1
- CE2
- ML2B
- C¹_{5-S}
- CV
- MVGQ
- CC
- RB
- J
- D-
- X
- 20-
- Data

Series RSQ



Model

Bore size (mm)		12	16	20	32	40	50
Mounting	Through-hole	●*	●	●	●	●	●
	Both ends tapped style	●	●	●	●	●	●
Built-in magnet		●	●	●	●	●	●
Piping	Screw-in type	M5 x 0.8		Rc 1/8			
	Built-in One-touch fittings	—		ø6/4		ø8/6	
Action		Double acting, Single acting (Spring extend), Double acting with spring loaded					
Rod end configuration	Round bar	●		●			
	Chamfered	●		●			
	Roller type	●		●			
	Lever type	—		●			

* ø12 tubes can have both through-hole and tap mountings in the same tube.

Specifications

Action	Double acting, Double acting with spring loaded, Single acting (Spring extend)
Fluid	Air
Proof pressure	1.5 MPa
Maximum operating pressure	1.0 MPa
Ambient and fluid temperature	Without auto switch: -10 to 70°C (No freezing) With auto switch: -10 to 60°C (No freezing)
Lubrication	Not required (Non-lube)
Cushion	Rubber bumper
Stroke length tolerance	+1.4 0
Mounting	Through-hole/Both ends tapped common
Auto switch	Mountable



Made to Order Specifications
(For details, refer to page 10-21-1.)

Symbol	Specifications
-XA□	Change of rod end shape
-XC3	Special port location
-XC18	NPT finish piping port

Bore Size/Standard Stroke

Bore size (mm)	Rod end configuration		
	Round bar, Chamfered type	Roller type	Lever type with shock absorber
12	10	10	—
16	10, 15	10, 15	—
20	10, 15, 20	10, 15, 20	—
32			10, 15, 20
40	20, 25, 30	20, 25, 30	20, 25, 30
50			20, 25, 30

Spring Force (Single acting)

Bore size (mm)	(N)	
	Extended	Compressed
12	3.9	9.6
16	4.9	14.9
20	3.4	14.9
32	8.8	18.6
40, 50	13.7	27.5

* Applicable only to round bar type, chamfered type and rollertype end configurations.

Auto Switch Mounting Bracket Part No.

Bore size (mm)	Mounting bracket part no.	Note	Applicable auto switch
16 20	BQ-1	• Switch mounting screw (M3 x 0.5 x 8) • Square nut	D-A7/A8 D-A7□H D-A73C/A80C D-F7□ D-F7□V, D-F7NT□
32 40 50	BQ-2	• Switch mounting nut • Switch mounting screw (M3 x 0.5 x 10) • Switch spacer	D-F7□W/J79W D-F7□WV D-F79F D-J79/J79C D-F7BAL/F7BAVL

[Mounting screws set made of stainless steel]

The following stainless steel mounting screw kit (including nuts) is available and may be used depending on the operating environment.

(Auto switch spacer is not included. Please contact SMC.)

BBA2: For D-A7/A8/F7/J7

"D-F7BAL/F7BAVL" switch is set on the cylinder with the stainless steel screws above when shipped. When a switch is shipped independently, "BBA2" screws are attached.

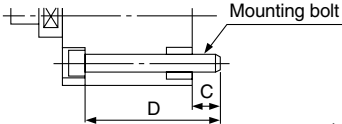
Stopper Cylinder: Fixed Mounting Height Series RSQ

Mounting Bolt for RSQB

Mounting method: Mounting bolt for through-hole mounting style of RSQB is available as an option.

Ordering: Add the word "Bolt" in front of the bolts to be used.

Example) Bolt M5 x 65/ 4 pcs.



Model	C	D	Mounting bolt
RSQB12-10□ (Note)	5	40	M3 x 45ℓ
RSQB16-10□	5	48	M3 x 55ℓ
-15□		53	M3 x 60ℓ
RSQB20-10□		55	M5 x 55ℓ
-15□	7	60	M5 x 60ℓ
-20□		65	M5 x 65ℓ
RSQB32-10□		60	M5 x 60ℓ
-15□	9	65	M5 x 65ℓ
-20□		70	M5 x 70ℓ
RSQB40-20□		75	M5 x 75ℓ
-25□	9.5	80	M5 x 80ℓ
-30□		85	M5 x 85ℓ
RSQB50-20□		75	M6 x 75ℓ
-25□	9	80	M6 x 80ℓ
-30□		85	M6 x 85ℓ

Weight

Action	Bore size (mm)	Rod end configuration	Cylinder stroke (mm)				
			10	15	20	25	30
Double acting	12	Round bar, Chamfered, Roller	0.07	—	—	—	—
	16	Round bar, Chamfered, Roller	0.14	0.15	—	—	—
Single acting, Spring extend	20	Round bar, Chamfered, Roller	0.23	0.24	0.25	—	—
		Lever with built-in shock absorber	0.51	0.53	0.55	—	—
Double acting with spring loaded	40	Round bar, Chamfered, Roller	—	—	0.74	0.80	0.86
		Lever with built-in shock absorber	—	—	0.97	1.01	1.05
	50	Round bar, Chamfered, Roller	—	—	1.03	1.07	1.11
		Lever with built-in shock absorber	—	—	1.26	1.30	1.34

Note) When using the through-hole mounting for a size ø12 cylinder, be sure to use the flat washer which is attached.

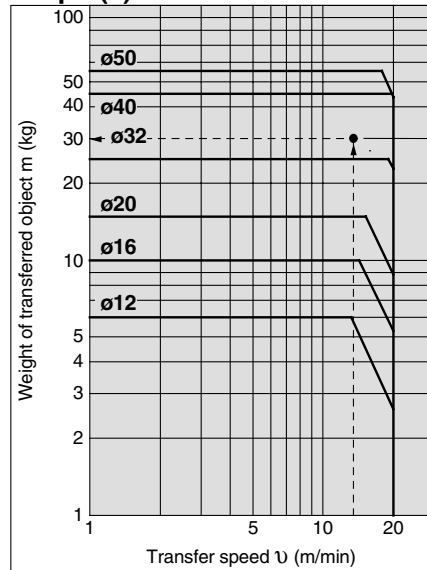
Operating Ranges by Rod End Configuration

(Example) For roller type with transfer speed of 15 m/min. and the weight of transferred object of 30 kg.

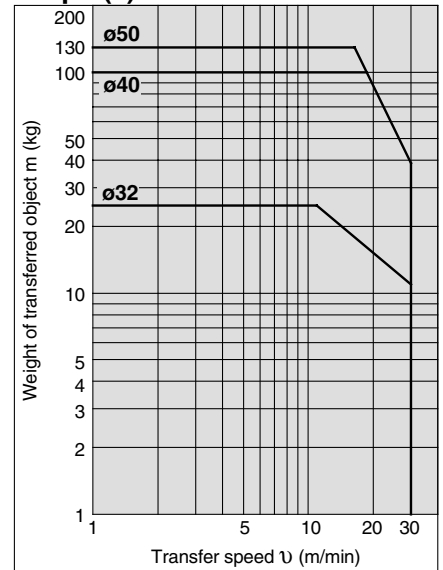
<How to read the graphs>

To select a cylinder based on the above specifications, find the intersection of the speed of 15 m/min. on the horizontal axis, and the weight of 30 kg on the vertical axis of Graph (1) to the right, and choose the model RSQ□40 within whose operating range the intersection point falls.

Roller Type/Round Bar Type/Chamfered Type Graph (1)



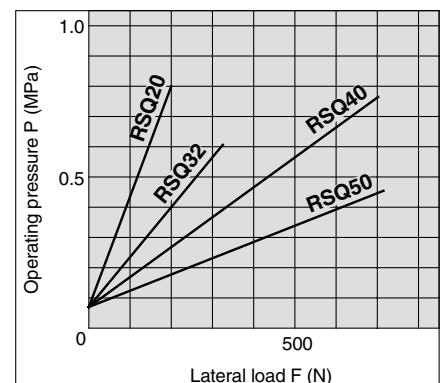
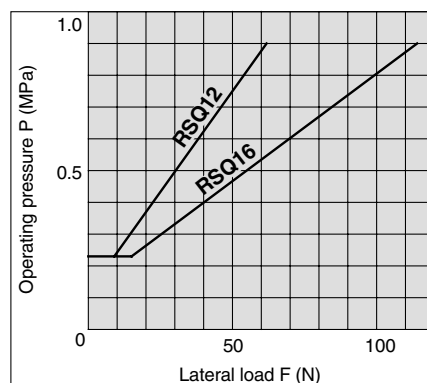
Lever Type (With shock absorber) Graph (2)



Lateral Load and Operating Pressure

The larger the lateral load, the higher the operating pressure required for the stopper cylinder. Set the operating pressure using the graphs as a guide.

(Applicable for round bar, roller and chamfered type rod end configurations.)

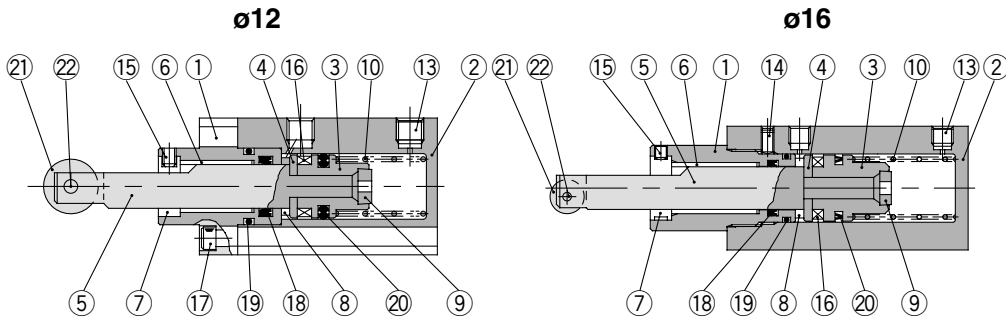


- RE^A_B
- REC
- C□X
- C□Y
- MQ^Q_M
- RHC
- MK(2)
- RS^Q_G
- RS^H_A
- RZQ
- MI^W_S
- CEP1
- CE1
- CE2
- ML2B
- C¹/₅-S
- CV
- MVGQ
- CC
- RB
- J
- D-
- X
- 20-
- Data

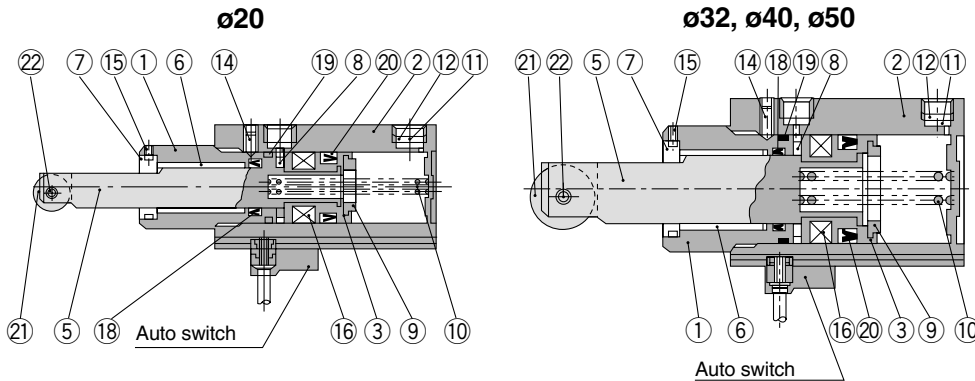
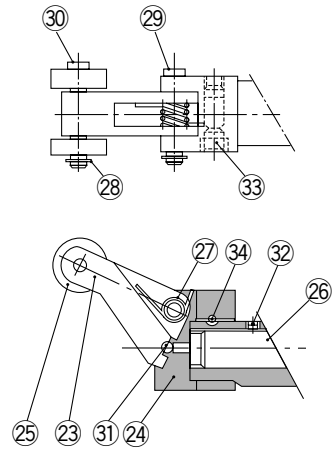
Series RSQ

Construction

Single acting, Roller rod end



Built-in shock absorber Lever rod end type (ø32, ø40, ø50 only)



Component Parts (For single acting)

No.	Description	Material	Note
①	Rod cover	Aluminum alloy	Anodized*
②	Cylinder tube	Aluminum alloy	Hard anodized
③	Piston	Aluminum alloy	Chromated
④	Spacer for switch	Aluminum alloy	ø12, ø16
⑤	Piston rod	ø12, ø16, ø20 Stainless steel ø32, ø40, ø50 Carbon steel	Hard chrome plated
⑥	Bushing	Lead-bronze casted	
⑦	Non-rotating guide	Rolled steel	Non-rotating type only
⑧	Bumper A	Urethane	
⑨	Bumper B	Urethane	
⑩	Return spring	Steel wire	Zinc chromated
⑪	Element	Sintered metallic BC	ø32 to ø50
⑫	Snap ring	Carbon tool steel	ø32 to ø50
⑬	Plug with fixed orifice	Alloy steel	ø12, ø16
⑭	Hexagon socket head set screw	Chromium molybdenum steel	Except ø12
⑮	Hexagon socket head set screw	Chromium molybdenum steel	
⑯	Magnet	Synthetic rubber	
⑰	Hexagon socket head cap screw	Alloy steel	Only ø12
⑱	Rod seal	NBR	
⑲	Gasket	NBR	
⑳	Piston seal	NBR	

* For bore size 20, 32, 40 and 50, the surface treatment of rod cover has been changed to "Anodized (natural color)" from Black anodized.

In the case of roller type

⑳	Roller A	Resin	
㉑	Spring pin	Carbon tool steel	

Component Parts (For single acting)

No.	Description	Material	Note
㉒	Lever	Cast iron	
㉓	Lever holder	Rolled steel	
㉔	Roller B	Resin	
㉕	Shock absorber	—	ø32—RB1007-X225 ø40, 50—RB1407-X552
㉖	Lever spring	Stainless steel wire	
㉗	Type C snap ring for axis	Carbon tool steel	
㉘	Lever pin	Carbon steel	
㉙	Roller pin	Carbon steel	
㉚	Steel balls	High carbon chrome bearing steel	
㉛	Hexagon socket head set screw	Chromium molybdenum steel	
㉜	Hexagon socket head set screw	Chromium molybdenum steel	
㉝	One-side tapered pin	Carbon steel	

Replacement Parts: Seal Kit

Bore size (mm)	Kit no.			Contents
	Double acting	Double acting with spring loaded	Single acting	
12	RSQ12D-PS	RSQ12T-PS		Set of above nos. ⑱, ⑲, ⑳
16	RSQ16B-PS	RSQ16D-PS	RSQ16T-PS	
20	RSQ20D-PS	RSQ20B-PS	RSQ20T-PS	
32	RSQ32D-PS	RSQ32B-PS	RSQ32T-PS	
40	RSQ40D-PS	RSQ40B-PS	RSQ40T-PS	
50	RSQ50D-PS	RSQ50B-PS	RSQ50T-PS	

* Seal kit includes ⑱, ⑲, ⑳. Order the seal kit, based on each bore size.

Replacement Parts: Shock Absorber

Bore size (mm)	Kit no.
32	RB1007-X225
40, 50	RB1407-X552

Stopper Cylinder: Fixed Mounting Height Series RSQ

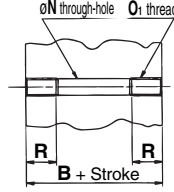
Rod End Configuration: Round Bar Type

Basic style: Through-hole mounting, Screw mounting

These 5 figures show the piston rod extended.

Screw mounting style: Both ends tapped style (mm)

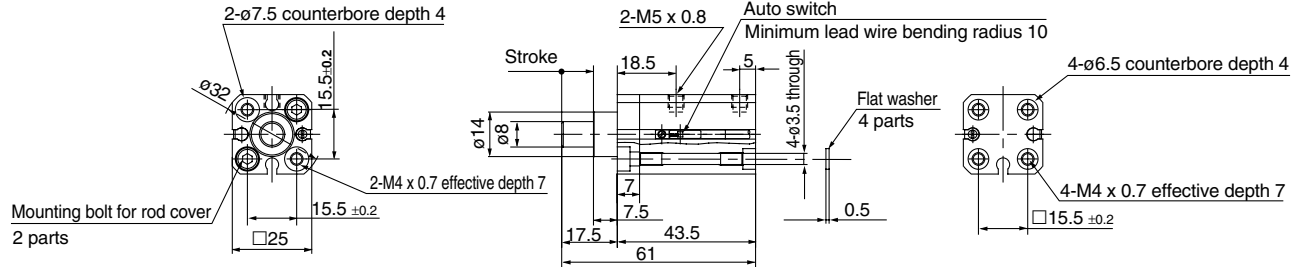
RS□QA



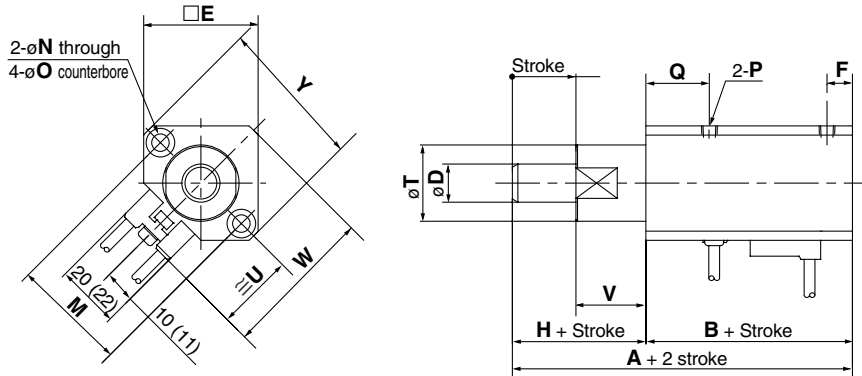
Model	B	N	O ₁	R
RS□QA16	41.5	3.5	M4 x 0.7	7
RS□QA20	45	5.5	M6 x 1	10
RS□QA32	48	5.5	M6 x 1	10
RS□QA40	52.5	5.5	M6 x 1	10
RS□QA50	54	6.6	M8 x 1.25	14

*Dimensions other than above are the same as those of the basic style (on the left).

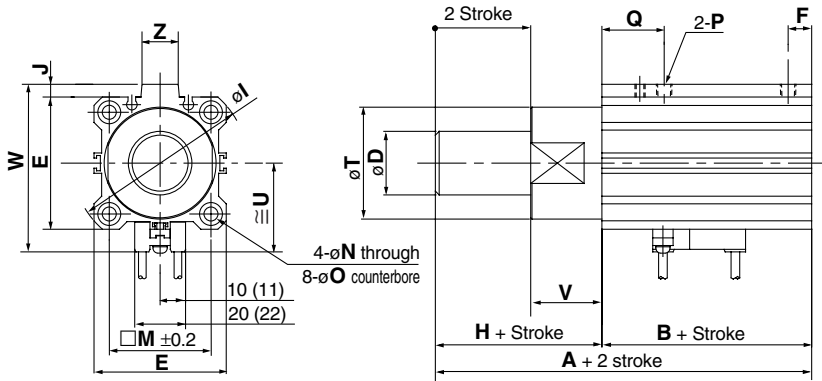
Bore size: $\phi 12$ RS□QB12-10□



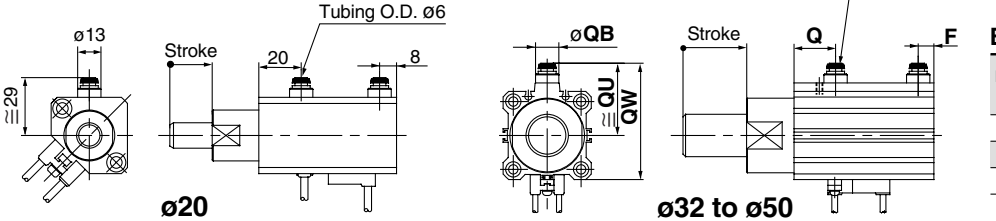
Bore size: $\phi 16, \phi 20$ RS□QB¹⁶/₂₀-□□



Bore size: $\phi 32, \phi 40, \phi 50$ RS□QB³²/₄₀/₅₀-□□



Built-in One-touch fittings ($\phi 20$ to $\phi 50$)



Built-in One-touch Fittings

Bore size (mm)	Applicable tubing O.D. QA	F	Q	QB	QU	QW
32	6	7.5	20	13	38	60.5
40	6	8	24.5	13	42	68
50	8	9.5	26	16	50	82

Bore size (mm)	A	B	D	E	F	H	I	J	M	N	O counterbore	P	Q	T	U	V	W	Y	Z
16	59.5	41.5	10	29	6	18	—	—	28	3.5	6.5 depth 4	M5 x 0.8	17	20	22.5	18	41.5	38	—
20	67	45	12	36	8	22	—	—	36	5.5	9 depth 7	Rc 1/8	20	24	24.5	22	48	47	—
32	68	48	20	45	7.5	20	60	4.5	34	5.5	9 depth 7	Rc 1/8	20	36	31.5	20	58.5	—	14
40	80.5	52.5	25	52	8	28	69	5	40	5.5	9 depth 7	Rc 1/8	24.5	44	35	28	66	—	14
50	82	54	25	64	8	28	86	7	50	6.6	11 depth 8	Rc 1/8	24.5	56	41	28	80	—	19

Note 1) Dimensions without auto switch are the same as drawing above.
 Note 2) These figures show the dimensions when equipped with D-A73 or D-A80 auto switches.

Note 4) These figures show the piston rod extended.
 Note 5) In the case of single acting type, a One-touch fitting is on the rod side only.

Note 3) For the auto switch mounting position and its mounting height, refer to page 10-8-13.



RE^A_B

REC

C□X

C□Y

MQ^Q_M

RHC

MK(2)

RS^Q_G

RS^H_A

RZQ

MI^W_S

CEP1

CE1

CE2

ML2B

C¹/₅-S

CV

MVGQ

CC

RB

J

D-

-X

20-

Data

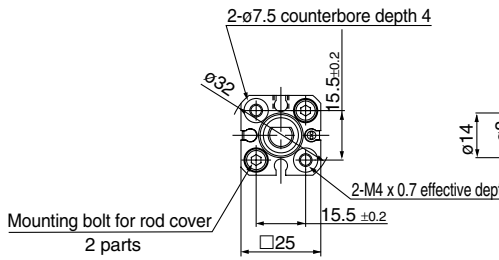
Series RSQ

Rod End Configuration: Chamfered (Non-rotating piston rod)

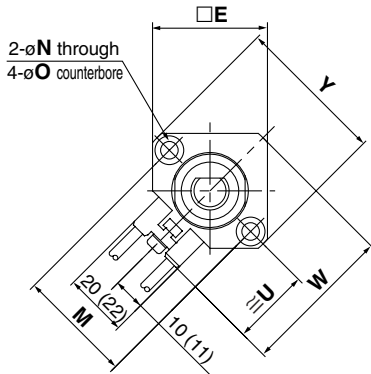
Basic style: Through-hole mounting, Screw mounting

These 5 figures show the piston rod extended.

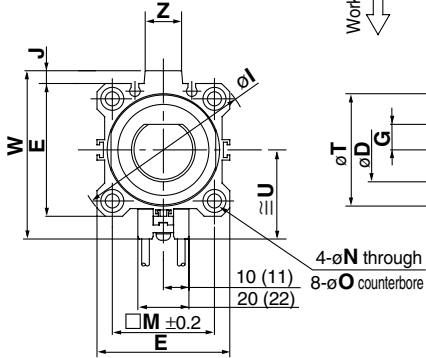
Bore size: $\phi 12$ RS□QB12-10□K



Bore size: $\phi 16, \phi 20$ RS□QB¹⁶/₂₀-□□K

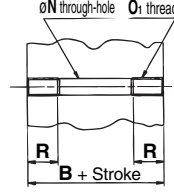


Bore size: $\phi 32, \phi 40, \phi 50$ RS□QB³²/₄₀/₅₀-□□K



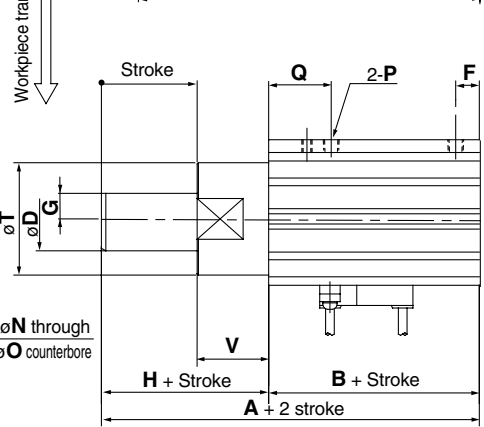
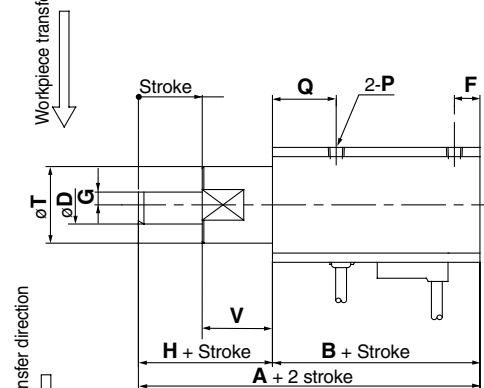
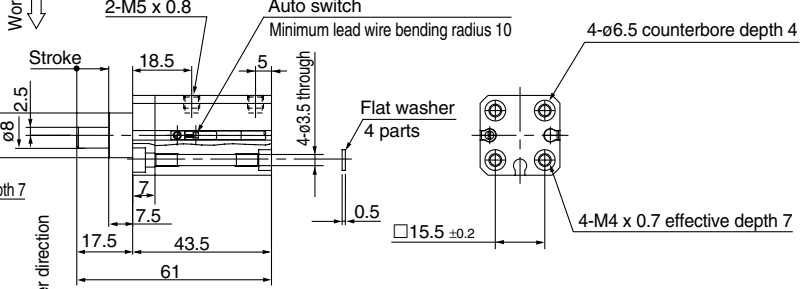
Screw mounting style: Both ends tapped style (mm)

RS□QA

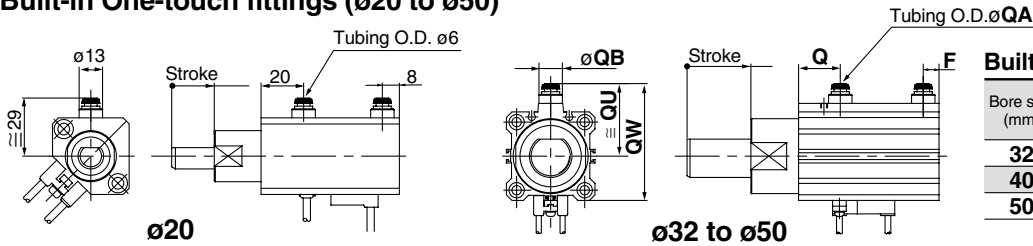


Model	B	N	O ₁	R
RS□QA16	41.5	3.5	M4 x 0.7	7
RS□QA20	45	5.5	M6 x 1	10
RS□QA32	48	5.5	M6 x 1	10
RS□QA40	52.5	5.5	M6 x 1	10
RS□QA50	54	6.6	M8 x 1.25	14

* Dimensions other than above are the same as those of the basic style (on the left).



Built-in One-touch fittings ($\phi 20$ to $\phi 50$)



Built-in One-touch Fittings

Bore size (mm)	Applicable tubing O.D. QA	F	Q	QB	QU	QW
32	6	7.5	20	13	38	60.5
40	6	8	24.5	13	42	68
50	8	9.5	26	16	50	82

Bore size (mm)	A	B	D	E	F	G	H	I	J	M	N	O counterbore	P	Q	T	U	V	W	Y	Z
16	59.5	41.5	10	29	6	3	18	—	—	28	3.5	6.5 depth 4	M5 x 0.8	17	20	22.5	18	41.5	38	—
20	67	45	12	36	8	4	22	—	—	36	5.5	9 depth 7	Rc 1/8	20	24	24.5	22	48	47	—
32	68	48	20	45	7.5	8	20	60	4.5	34	5.5	9 depth 7	Rc 1/8	20	36	31.5	20	58.5	—	14
40	80.5	52.5	25	52	8	10	28	69	5	40	5.5	9 depth 7	Rc 1/8	24.5	44	35	28	66	—	14
50	82	54	25	64	8	10	28	86	7	50	6.6	11 depth 8	Rc 1/8	24.5	56	41	28	80	—	19

Note 1) Dimensions without auto switch are the same as drawing above.
 Note 2) These figures show the dimensions when equipped with D-A73 or D-A80 auto switches.

Note 3) For the auto switch mounting position and its mounting height, refer to page 10-8-13.
 10-8-8

Note 4) These figures show the piston rod extended.
 Note 5) In the case of single acting type, a One-touch fitting is on the rod side only.



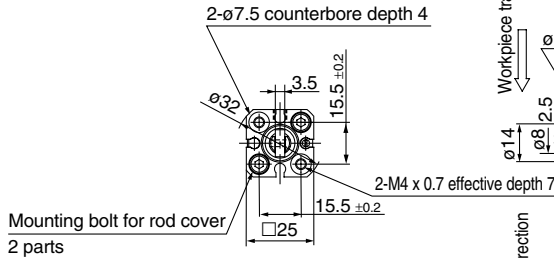
Stopper Cylinder: Fixed Mounting Height Series RSQ

Rod End Configuration: Roller Type

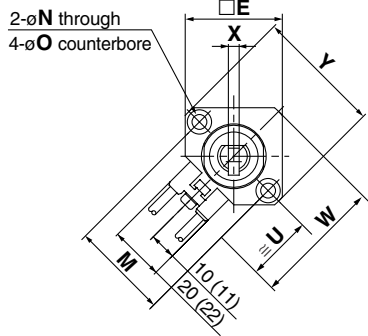
Basic style: Through-hole mounting, Screw mounting

These 5 figures show the piston rod extended.

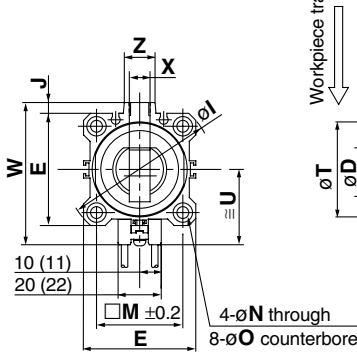
Bore size: $\phi 12$ RS□QB12-10□R



Bore size: $\phi 16, \phi 20$ RS□QB¹⁶/₂₀-□□R



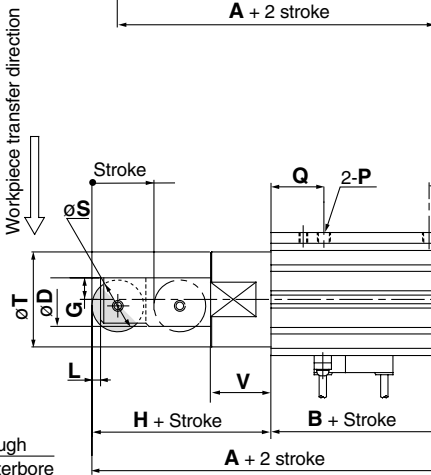
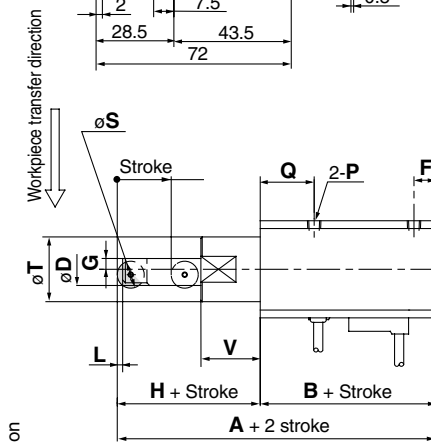
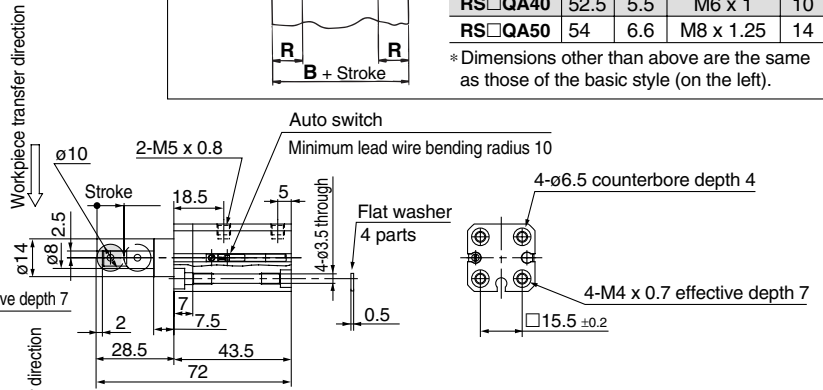
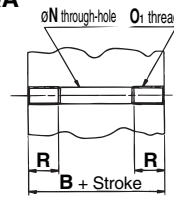
Bore size: $\phi 32, \phi 40, \phi 50$ RS□QB³²/₄₀/₅₀-□□R



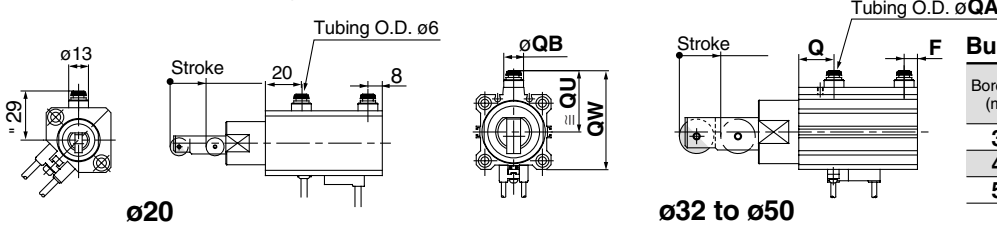
Screw mounting style: Both ends tapped style (mm)

Model	B	N	O ₁	R
RS□QA16	41.5	3.5	M4 x 0.7	7
RS□QA20	45	5.5	M6 x 1	10
RS□QA32	48	5.5	M6 x 1	10
RS□QA40	52.5	5.5	M6 x 1	10
RS□QA50	54	6.6	M8 x 1.25	14

*Dimensions other than above are the same as those of the basic style (on the left).



Built-in One-touch fittings ($\phi 20$ to $\phi 50$)



Bore size (mm)	Applicable tubing O.D. QA	F	Q	QB	QU	QW
32	6	7.5	20	13	38	60.5
40	6	8	24.5	13	42	68
50	8	9.5	26	16	50	82

Bore size (mm)	A	B	D	E	F	G	H	I	J	L	M	N	O counterbore	P	Q	S	T	U	V	W	X	Y	Z
16	68	41.5	10	29	6	3	26.5	—	—	2	28	3.5	6.5 depth 4	M5 x 0.8	17	8	20	22.5	18	41.5	3.5	38	—
20	78	45	12	36	8	4	33	—	—	2	36	5.5	9 depth 7	Rc 1/8	20	10	24	24.5	22	48	4	47	—
32	87	48	20	45	7.5	8	39	60	4.5	3	34	5.5	9 depth 7	Rc 1/8	20	18	36	31.5	20	58.5	8	—	14
40	105.5	52.5	25	52	8	10	53	69	5	4	40	5.5	9 depth 7	Rc 1/8	24.5	24	44	35	28	66	9	—	14
50	107	54	25	64	8	10	53	86	7	4	50	6.6	11 depth 8	Rc 1/8	24.5	24	56	41	28	80	9	—	19

Note 1) Dimensions without auto switch are the same as drawing above.
 Note 2) These figures show the dimensions when equipped with D-A73 or D-A80 auto switches.
 Note 3) For the auto switch mounting position and its mounting height, refer to page 10-8-13.

Note 4) These figures show the piston rod extended.
 Note 5) In the case of single acting type, a One-touch fitting is on the rod side only.



RE^A_B

REC

C□X

C□Y

MQ^Q_M

RHC

MK(2)

RS^Q_G

RS^H_A

RZQ

MI^W_S

CEP1

CE1

CE2

ML2B

C₆5-S

CV

MVGQ

CC

RB

J

D-

-X

20-

Data

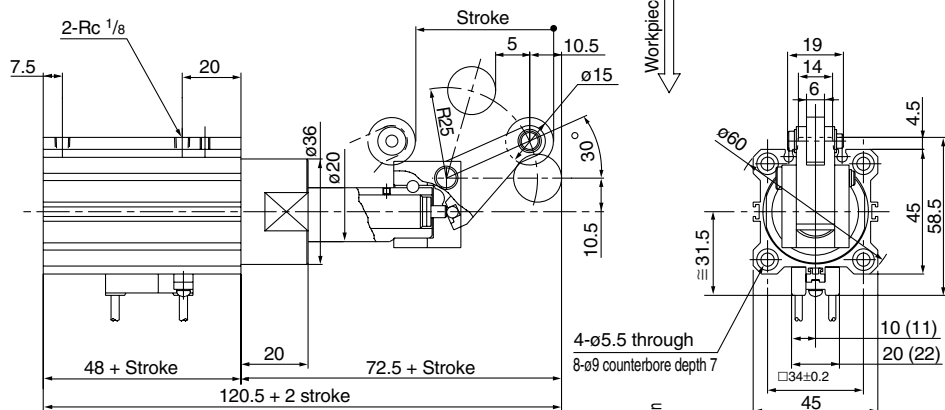
Series RSQ

Rod End Configuration: Lever Type with Shock Absorber

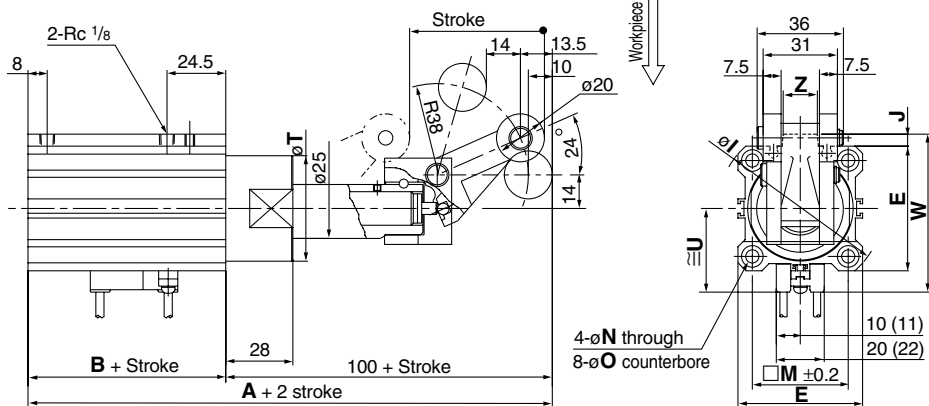
Basic style: Through-hole mounting, Screw mounting

These 3 figures show the piston rod extended.

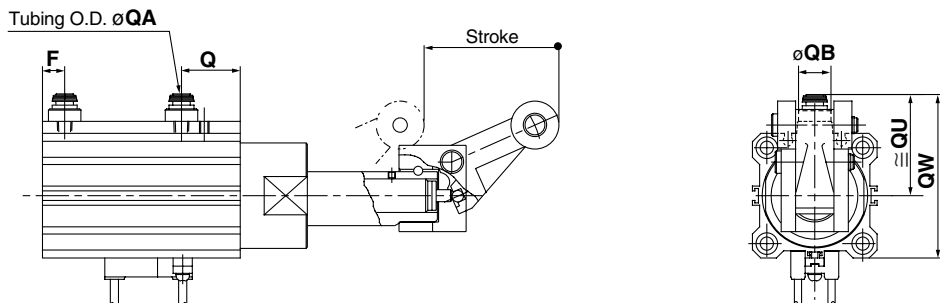
Bore size: $\phi 32$ RSQAQB32-□□L



Bore size: $\phi 40, \phi 50$ RSQAQB⁴⁰/₅₀-□□L



Built-in One-touch fittings



Built-in One-touch Fittings

Bore size (mm)	Applicable tubing O.D. QA	F	Q	QB	QU	QW
32	6	7.5	20	13	38	60.5
40	6	8	24.5	13	42	68
50	8	9.5	26	16	50	82

Bore size (mm)	A	B	E	I	J	M	N	O counterbore	T	U	W	Z
40	152.5	52.5	52	69	5	40	5.5	9 depth 7	44	35	66	14
50	154	54	64	86	7	50	6.6	11 depth 8	56	41	80	19

Note 1) Dimensions without auto switch are the same as drawing above.

Note 2) These figures show the dimensions when equipped with D-A73 or D-A80 auto switches.

Note 3) For the auto switch mounting position and its mounting height, refer to page 10-8-13.

Note 4) These figures show the piston rod extended.

Note 5) In the case of single acting type, a One-touch fitting is on the rod side only.

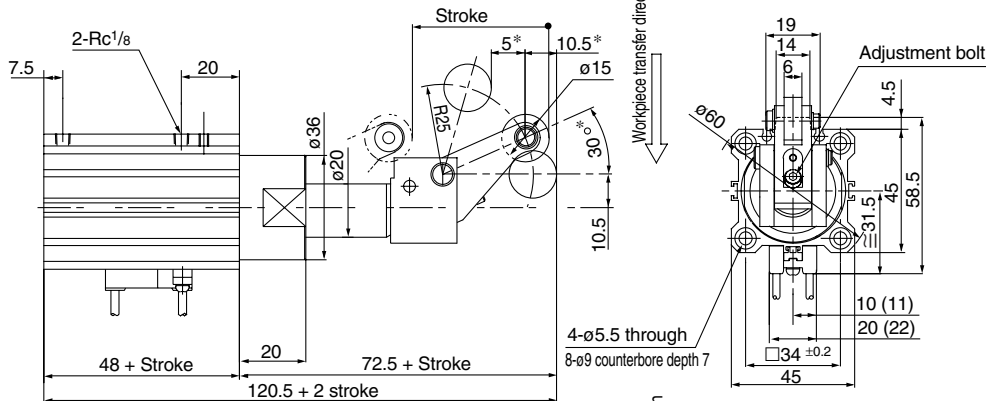
Stopper Cylinder: Fixed Mounting Height Series RSQ

Rod End Configuration: Lever Type with Shock Absorber

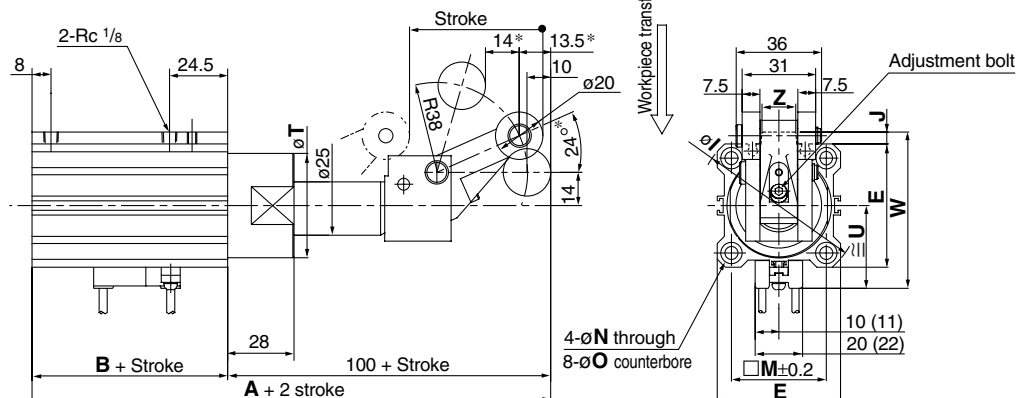
Variable energy absorbing type/Through-hole mounting, Screw mounting style Adjustable shock absorber stroke

These 3 figures show the piston rod extended.

Bore size: $\phi 32$ RS□QB32-□□B

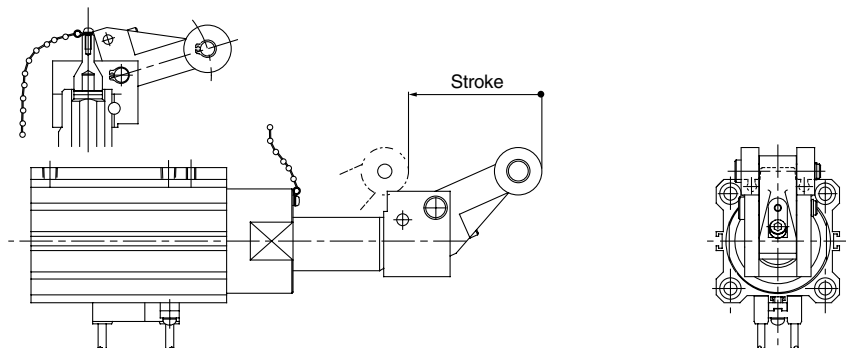


Bore size: $\phi 40, \phi 50$ RS□QB⁴⁰/₅₀-□□B



With cancel cap RS□QB□-□□C

* Dimensions when equipped with cancel cap are the same as the drawing above.

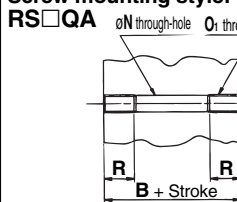


* These figures show dimensions when set for maximum energy absorbing capacity.

Bore size (mm)	A	B	E	I	J	M	N	O counterbore	T	U	W	Z
40	152.5	52.5	52	69	5	40	5.5	9 depth 7	44	35	66	14
50	154	54	64	86	7	50	6.6	11 depth 8	56	41	80	19

- Note 1) Dimensions without auto switch are the same as drawing above.
- Note 2) These figures show the dimensions when equipped with D-A73 or D-A80 auto switches.
- Note 3) For the auto switch mounting position and its mounting height, refer to page 10-8-13.

Screw mounting style: Both ends tapped style (mm)



Model	B	N	O ₁	R
RS□QA32	48	5.5	M6 x 1	10
RS□QA40	52.5	5.5	M6 x 1	10
RS□QA50	54	6.6	M8 x 1.25	14

* Dimensions other than above are the same as below drawings.

RE^A_B

REC

C□X

C□Y

MQ^Q_M

RHC

MK(2)

RS^Q_G

RS^H_A

RZQ

MI^W_S

CEP1

CE1

CE2

ML2B

C¹/₅-S

CV

MVGQ

CC

RB

J

D-

-X

20-

Data

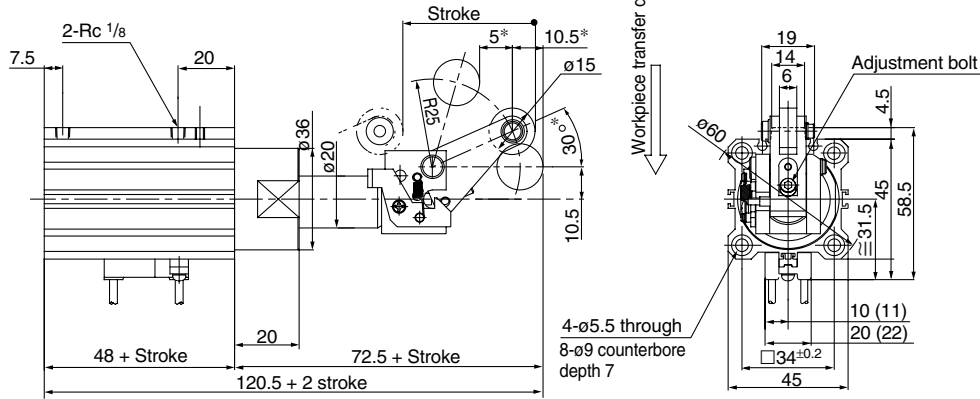
Series RSQ

Rod End Configuration: Lever Type with Shock Absorber

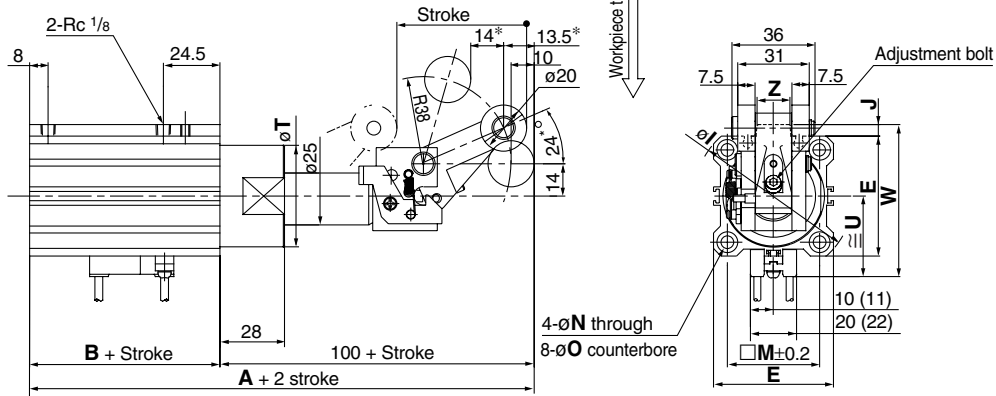
Variable energy absorbing type/Through-hole mounting,
Screw mounting style
With lock mechanism

These 3 figures show the piston rod extended.

Bore size: $\phi 32$ RS□QB32-□□D

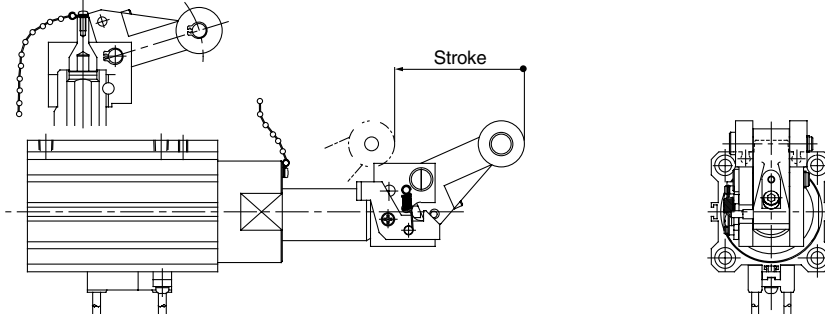


Bore size: $\phi 40, \phi 50$ RS□QB⁴⁰/₅₀-□□D



With lock mechanism + Cancel cap RS□QB□□-□□E

* Dimensions when equipped with lock and cancel cap are the same as the figure drawing.



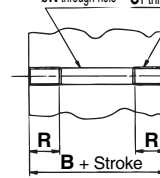
* These figures show dimensions when set for maximum energy absorbing capacity.

Bore size (mm)	A	B	E	I	J	M	N	O counterbore	T	U	W	Z
40	152.5	52.5	52	69	5	40	5.5	9 depth 7	44	35	66	14
50	154	54	64	86	7	50	6.6	11 depth 8	56	41	80	19

Note 1) Dimensions without auto switch are the same as drawing above.
Note 2) These figures show the dimensions when equipped with D-A73 or D-A80 auto switches.
Note 3) For the auto switch mounting position and its mounting height, refer to page 10-8-13.

Screw mounting style: Both ends tapped style (mm)

Model	B	N	O ₁	R
RS□QA32	48	5.5	M6 x 1	10
RS□QA40	52.5	5.5	M6 x 1	10
RS□QA50	54	6.6	M8 x 1.25	14



* Dimensions other than above are the same as the drawings below.

Note 4) These figures show the piston rod extended.
Note 5) In the case of single acting type, a One-touch fitting is on the rod side only.
Note 6) The figures shows the dimensions when the adjustment bolt is lowered (when energy absorption is at its maximum). However, these dimensions change within the ranges shown below as the adjustment bolt is raised (energy absorption is reduced).
 $\phi 32 \dots 30^* \rightarrow 20^*, 10.5^* \rightarrow 9^*, 5^* \rightarrow 6^*$
 $\phi 40, 50 \dots 24^* \rightarrow 16^*, 13.5^* \rightarrow 11.5^*, 14^* \rightarrow 16^*$

Stopper Cylinder: Fixed Mounting Height Series RSQ

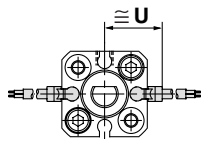
Proper Auto Switch Mounting Position (Detection at stroke end) and Its Mounting Height

ø12

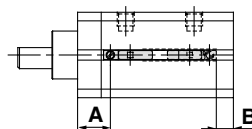
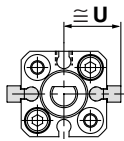
D-A9□
D-M9□
D-F9□W



D-A9□V
D-M9□V
D-F9□WV

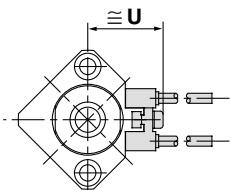


D-F9BAL

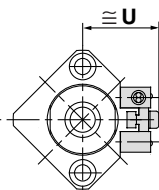


ø16, ø20

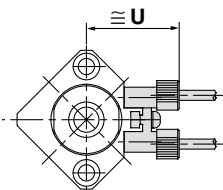
D-A7
D-A8



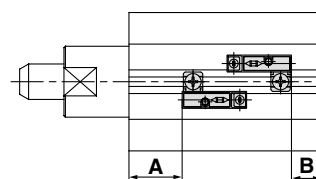
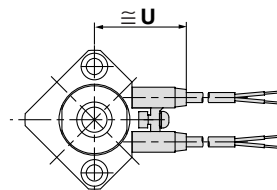
D-A7□H, D-A80H
D-F7□, D-J79
D-F7□W, D-J79W
D-F79F, D-FNTL
DF7BAL



D-A73C
D-A80C
D-J79C

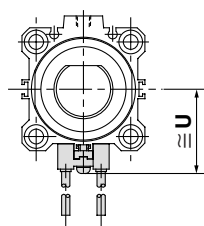


D-A79W
D-F7□V
D-F7BAVL

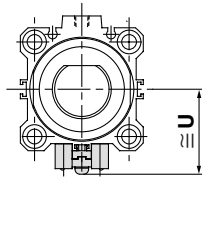


ø32 to ø50

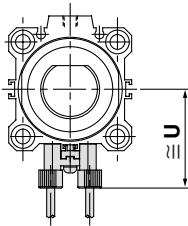
D-A7
D-A8



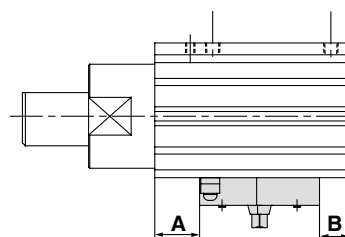
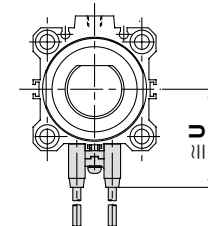
D-A7□H, D-A80H
D-F7□, D-J79
D-F7□W, D-J79W
D-F79F, D-F7NTL
D-F7BAL



D-A73C
D-A80C
D-J79C

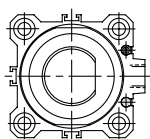


D-A79W
D-F7□V
D-F7BAVL

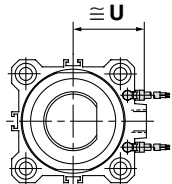


ø32 to ø50

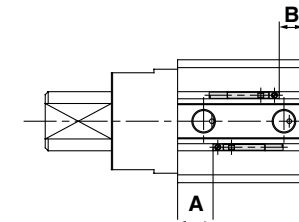
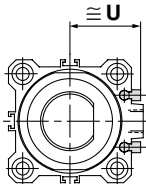
D-A9□
D-M9□
D-F9□W



D-A9□V
D-M9□V
D-F9□WV



D-F9BAL



Proper Auto Switch Mounting Position

Bore size (mm)	D-A7□ D-A80		D-A7□H D-A80H D-A73C D-A80C D-F7□ D-J79 D-F7□V D-J79C D-F7BAVL D-F7BAL D-F7□W D-J79W D-F79F		D-A79W		D-A9□ D-A9□V		D-M9□ D-M9□V D-F9□WV D-F9□W		D-F9BAL	
	A	B	A	B	A	B	A	B	A	B	A	B
12	—	—	—	—	—	—	9	4	13	8	12	7
16	11.5	11.5	12	12	9	9	—	—	—	—	—	—
20	17.5	9.5	18	10	15	7	—	—	—	—	—	—
32	18	12	18.5	12.5	15.5	9.5	17	11	21	15	20	14
40	22.5	12	23	12.5	20	9.5	21.5	11	25.5	15	24.5	14
50	30.5	5.5	31	6	28	3	29.5	4.5	33.5	8.5	32.5	7.5

Auto Switch Mounting Height

(mm)

D-A7□ D-A80	D-A7□H D-A80H D-F7□ D-J79 D-F7□W D-J79C D-F7BAVL D-F7BAL D-F7□V D-J79W D-F79F D-F7NTL	D-A73C D-A80C	D-F7□V D-F7□WV D-F7BAVL	D-J79C	D-A79W	D-A9□V	D-M9□V D-F9□WV	D-F9BAL
U	U	U	U	U	U	U	U	U
—	—	—	—	—	—	17	19.5	16.5
22.5	23.5	29.5	26	29	25	—	—	—
24.5	25.5	31.5	28	31	27	—	—	—
31.5	32.5	38.5	35	38	34	27	29	26.5
35	36	42	38.5	41.5	37.5	30.5	32.5	30
41	42	48	44.5	47.5	43.5	36.5	38.5	36

- RE^A_B
- REC
- C□X
- C□Y
- MQ^Q_M
- RHC
- MK(2)
- RS^Q_G
- RS^H_A
- RZQ
- MI^W_S
- CEP1
- CE1
- CE2
- ML2B
- C¹/₅-S
- CV
- MVGQ
- CC
- RB
- J
- D-
- X
- 20-
- Data

Series RSQ

Operating Range

Auto switch model	Bore size (mm)					
	12	16	20	32	40	50
D-A7□/A80 D-A7H/A80H D-A73C/A80C	—	12	12	12	11	10
D-A79W	—	13	13	13	14	14
D-A9□/A9□V	6	—	—	9.5	9.5	9.5
D-F7□/J79 D-F7□V/J79C D-F7□W/J7□WV D-F7BAL/F7BAVL D-F79F	—	6	5.5	6	6	6
D-M9□/M9□V	—	—	—	3.5	3.5	3.5
D-F9□W/F9□WV D-F9BAL	3	—	—	5.5	5.5	5.5

* Since this is a guideline including hysteresis, not meant to be guaranteed.
(Assuming approximately $\pm 30\%$ dispersion) There may be the case to change substantially depending on an ambient environment.

Other than the applicable auto switches listed in "How to Order", following auto switches can be mounted.
For detailed specifications, refer to page 10-20-1.

Type	Model	Electrical entry (Fetching direction)	Features	Applicable bore size (mm)
Reed switch	D-A80	Grommet (Perpendicular)	Without indicator light	16 to 50
	D-A80H	Grommet (In-line)		
	D-A80C	Connector (Perpendicular)		12, 32 to 50
	D-A90	Grommet (In-line)		
	D-A90V	Grommet (Perpendicular)		
Solid state switch	D-F7NTL	Grommet (In-line)	With timer	16 to 50

* With pre-wire connector is available for D-F7NTL type, too. For details, refer to page 10-20-66.

* Normally closed (NC = b contact), solid state switch (D-F9G/F9H type) are also available. For details, refer to page 10-20-40.

Stopper Cylinder: Adjustable Mounting Height

Series RSG

ø40, ø50

How to Order

Without auto switch

RSG [40] [] [30] [D] []

With auto switch

RSDG [40] [] [30] [D] [] [H7BW] []

Built-in magnet

Bore size

40	40 mm
50	50 mm

Piping

Nil	Screw-in piping
F	Built-in One-touch fittings

Cylinder stroke (mm)

40, 50	20, 25, 30
--------	------------

Auto Switch Mounting Bracket Part No.

Auto switch model	Bore size (mm)	
	40	50
D-C7/C8	BMA2-040	BMA2-050
D-H7		

[Mounting screws set made of stainless steel]
The following stainless steel mounting screw kit is available and may be used depending on the operating environment.
(A switch mounting band is not included, so please order it separately.)
BBA4: For D-C7/C8/H7
"D-H7BAL" switch is set on the cylinder with the stainless steel screws above when shipped.
When a switch is shipped independently, "BBA4" screws are attached.

Number of auto switches

Nil	2 pcs.
S	1 pc.

Auto switch

Nil	Without auto switch
-----	---------------------

* For the applicable auto switch model, refer to the table below.

Rod end configuration

Symbol	Configuration	Application
Nil	Round bar type	—
K	Chamfered type	—
R	Roller type	—
L	Lever type (Non-adjustable)	Basic style
B	Lever type (Energy absorbing Adjustable deformation)	—
C		With cancel cap
D		With lock mechanism
E		With lock & cancel

Action

D	Double acting
B	Double acting with spring loaded
T	Single acting (Spring extend)

Applicable Auto Switch/Refer to page 10-20-1 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model	Lead wire length (m)*				Pre-wire connector	Applicable load		
					DC	AC		0.5 (Nil)	3 (L)	5 (Z)	None (N)		IC circuit	Relay, PLC	
Reed switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	C76	●	●	—	—	—	IC circuit	—
				2-wire	24 V	12 V	100 V	C73	●	●	●	—	—	—	Relay, PLC
		Connector	—	—	—	C73C	●	●	●	●	—	—	—	—	
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	H7A1	●	●	○	—	○	—	IC circuit
				3-wire (PNP)				H7A2	●	●	○	—	○	—	—
		2-wire		H7B				●	●	○	—	○	—	—	
		2-wire		H7C				●	●	●	●	—	—	—	
		Grommet		3-wire (NPN)				H7NW	●	●	○	—	○	—	IC circuit
				3-wire (PNP)				H7PW	●	●	○	—	○	—	—
				2-wire				H7BW	●	●	○	—	○	—	—
				2-wire				H7BA	—	●	○	—	○	—	—
		With diagnostic output (2-color indication)		Grommet				4-wire (NPN)	5 V, 12 V	H7NF	●	●	○	—	○

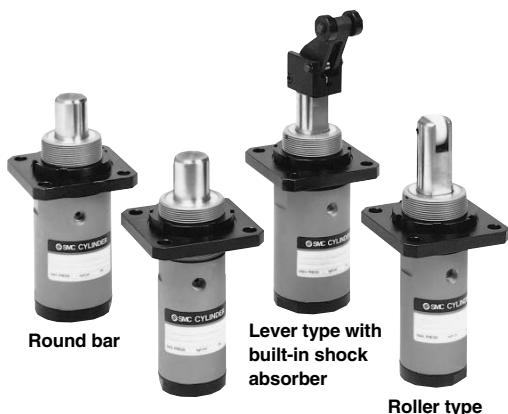
* Lead wire length symbols: 0.5 m Nil (Example) C73C
 3 m L (Example) C73CL
 5 m Z (Example) C73CZ
 None N (Example) C73CN

* Solid state switches marked with "○" are produced upon receipt of order.

- Since there are other applicable auto switches than listed, refer to page 10-8-24 for details.
- For details about auto switches with pre-wire connector, refer to page 10-20-66.

- RE^A_B
- REC
- C□X
- C□Y
- MQ^Q_M
- RHC
- MK(2)
- RS^Q_G
- RS^H_A
- RZQ
- MI^W_S
- CEP1
- CE1
- CE2
- ML2B
- C¹/₅-S
- CV
- MVGQ
- CC
- RB
- J
- D-
- X
- 20-
- Data

Series RSG



Model

Bore size (mm)		40	50
Mounting	Flange	●	●
Built-in magnet		●	●
Piping	Screw-in type	Rc 1/8	
	Built-in One-touch fittings	ø6/4	ø8/6
Action		Double acting, Single acting (Spring extended), Double acting with spring loaded	
Rod end configuration	Round bar type	●	●
	Chamfered type	●	●
	Roller type	●	●
	Lever type	●	●

Spring Force (Single acting)

Bore size (mm)	Extended	Compressed
40, 50	13.7	27.5

(N)

* For Round bar type, Chamfered type and Roller type.

Specifications

Action	Double acting, Double acting with spring loaded, Single acting (Spring extended)
Fluid	Air
Proof pressure	1.5 MPa
Maximum operating pressure	1.0 MPa
Ambient and fluid temperature	Without auto switch -10 to 70°C (No freezing) With auto switch: -10 to 60°C (No freezing)
Lubrication	Not required (Non-lube)
Cushion	Rubber bumper
Stroke length tolerance	+1.4 0
Mounting	Flange style
Auto switch	Mountable



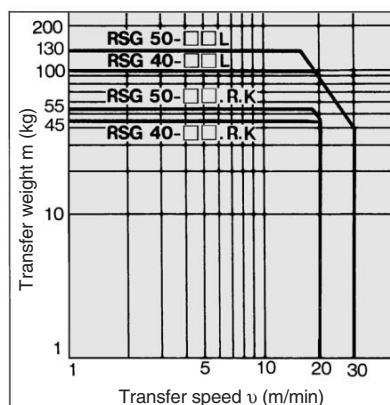
Made to Order Specifications (For details, refer to page 10-21-1.)

Symbol	Specifications
-XA□	Change of rod end shape
-XC3	Special port position

Bore Size/Standard Stroke

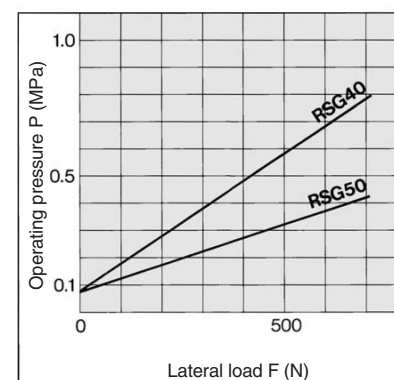
Bore size (mm)	Rod end configuration
	Round bar type, Chamfered type, Roller type, Lever type with shock absorber
40	20, 25, 30
50	20, 25, 30

Operating Range



Lateral Load and Operating Pressure

Greater lateral loads need higher stopper cylinder operation pressures. Set the operation pressure by using the graph as guidelines. (Applicable to the round bar, roller, and chamfered type.)



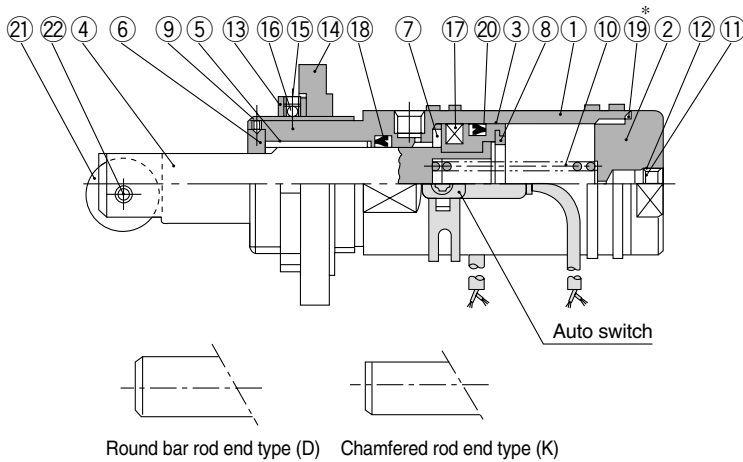
Stopper Cylinder: Adjustable Mounting Height Series RSG

Weight

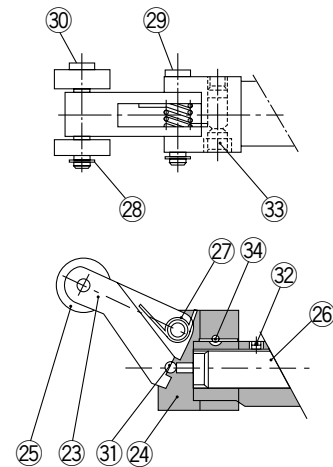
Action	Bore size (mm)	Rod end configuration	Cylinder stroke (mm)		
			20	25	30
Double acting	40	Round bar type, Chamfered type, Roller type	1.14	1.17	1.2
		Lever type with built-in shock absorber	1.38	1.41	1.44
Single acting, Spring extend	50	Round bar type, Chamfered type, Roller type	1.34	1.37	1.4
Double acting with spring loaded		Lever type with built-in shock absorber	1.56	1.59	1.62

Construction

Single acting, Roller rod end



Lever rod end with shock absorber type



Component Parts (For single acting)

No.	Description	Material	Note
①	Tube cover	Aluminum alloy	Hard anodized
②	Head cover	Aluminum alloy	Anodized
③	Piston	Aluminum alloy	Chromated
④	Piston rod	Carbon steel	Hard chrome plated
⑤	Bushing	Lead-bronze casted	
⑥	Non-rotating guide	Rolled steel	Use collar for round bar type.
⑦	Bumper A	Urethane	
⑧	Bumper B	Urethane	
⑨	Hexagon socket head set screw	Chromium molybdenum steel	
⑩	Return spring	Steel wire	Zinc chromated
⑪	Snap ring	Carbon tool steel	
⑫	Element	Sintered metallic BC	
⑬	lock nut	Carbon steel	
⑭	Flange	Cast iron	
⑮	Hexagon socket head set screw	Chromium molybdenum steel	
⑯	Ball	Resin	
⑰	Magnet	Synthetic rubber	
⑱	Rod seal	NBR	
⑲	Gasket	NBR	Used Only for double acting and double acting with spring loaded.
⑳	Piston seal	NBR	

Component Parts (For single acting)

No.	Description	Material	Note
In the case of roller type			
⑲	Roller A	Resin	
⑳	Spring pin	Carbon tool steel	
Lever type			
㉓	Lever	Cast iron	
㉔	Lever holder	Rolled steel	
㉕	Roller B	Resin	
㉖	Shock absorber	—	RB1407-X552
㉗	Lever spring	Stainless steel wire	
㉘	Type C snap ring for shaft	Carbon tool steel	
㉙	Lever pin	Carbon steel	
㉚	Roller pin	Carbon steel	
㉛	Steel balls	High carbon chrome bearing steel	
㉜	Hexagon socket head set screw	Chromium molybdenum steel	
㉝	Hexagon socket head set screw	Chromium molybdenum steel	
㉞	One-side tapered pin	Carbon steel	

Replacement Parts: Shock Absorber

Bore size (mm)	Kit no.
40, 50	RB1407-X552

Replacement Parts: Seal Kit

Bore size (mm)	Kit no.			Contents
	Double acting	Double acting with spring loaded	Single acting	
40	RSG40D-PS	RSG40B-PS	RSG40T-PS	Set of above nos.
50	RSG50D-PS	RSG50B-PS	RSG50T-PS	⑱, ⑲, ⑳

* Seal kit includes ⑱, ⑲, ⑳. Order the seal kit, based on each bore size.

RE^A_B

REC

C□X

C□Y

MQ^Q_M

RHC

MK(2)

RS^Q_G

RS^H_A

RZQ

MI^W_S

CEP1

CE1

CE2

ML2B

C¹/₅-S

CV

MVGQ

CC

RB

J

D-

-X

20-

Data

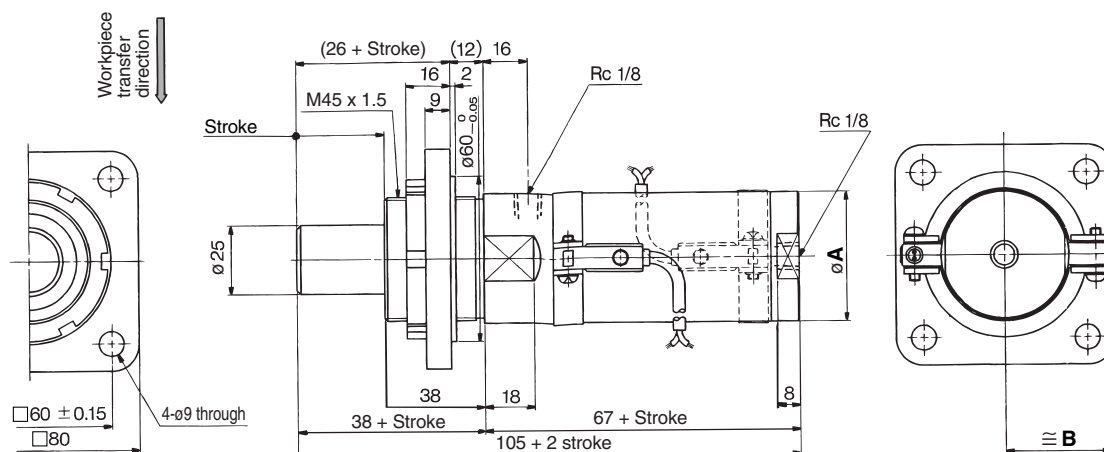
Series RSG

Rod End Configuration: Round Bar Type

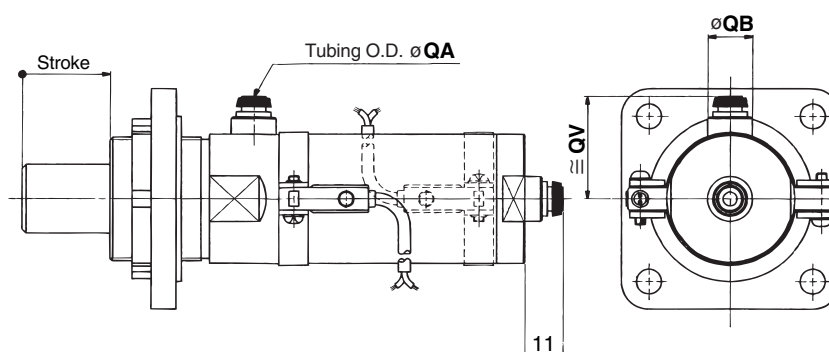
Basic style: Flange mounting

These 2 figures show the piston rod extended.

Bore size: $\phi 40, \phi 50$ RS□G□-□□



Built-in One-touch fittings



Bore size (mm)	A	B	QA	QB	QV
40	47	35	6	13	33
50	58	40.5	8	16	38.5



- Note 1) Body dimensions without auto switch are the same as drawing above.
 Note 2) In the case of single acting type, a One-touch fitting is on the rod side only.
 Note 3) These figures show the dimensions when equipped with D-C7/C8 type auto switches.
 Note 4) These figures show the piston rod extended.
 Note 5) For the auto switch mounting position and its mounting height, refer to page 10-8-24.

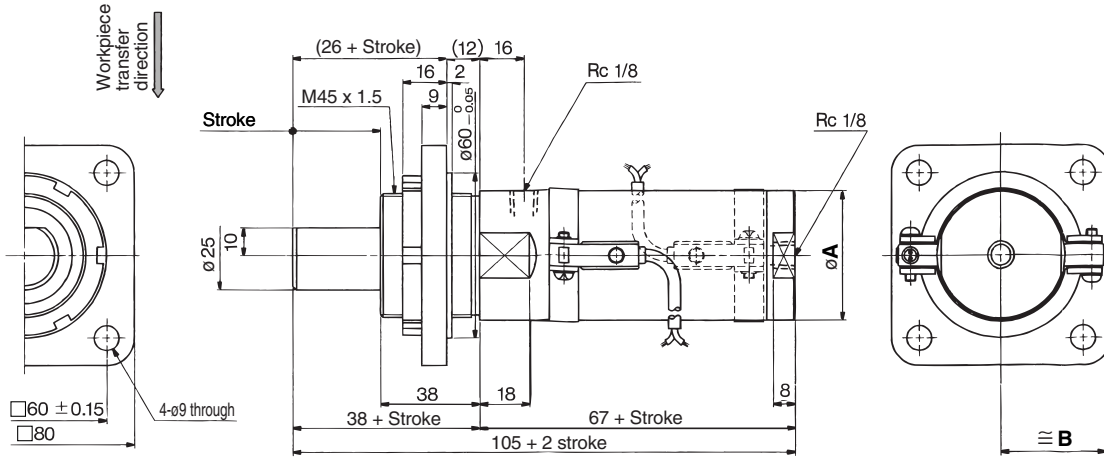
Stopper Cylinder: Adjustable Mounting Height Series RSG

Rod End Configuration: Chamfered Type (Non-rotating piston rod)

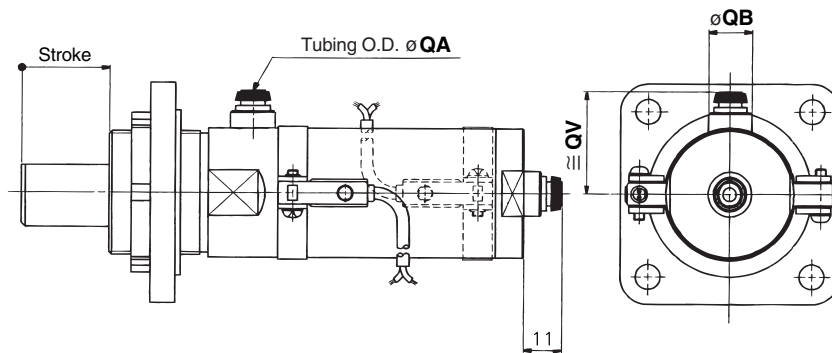
Basic style: Flange mounting

These 2 figures show the piston rod extended.

Bore size: $\phi 40, \phi 50$ RS□G□-□□K



Built-in One-touch fittings



Bore size (mm)	A	B	QA	QB	QV
40	47	35	6	13	33
50	58	40.5	8	16	38.5

- Note 1) Body dimensions without auto switch are the same as drawing above.
- Note 2) In the case of single acting type, a One-touch fitting is on the rod side only.
- Note 3) These figures show the dimensions when equipped with D-C7/C8 type auto switches.
- Note 4) These figures show the piston rod extended.
- Note 5) For the auto switch mounting position and its mounting height, refer to page 10-8-24.

- RE^A_B
- REC
- C□X
- C□Y
- MQ^Q_M
- RHC
- MK(2)
- RS^Q_G
- RS^H_A
- RZQ
- MI^W_S
- CEP1
- CE1
- CE2
- ML2B
- C¹/₅-S
- CV
- MVGQ
- CC
- RB
- J
- D-
- X
- 20-
- Data

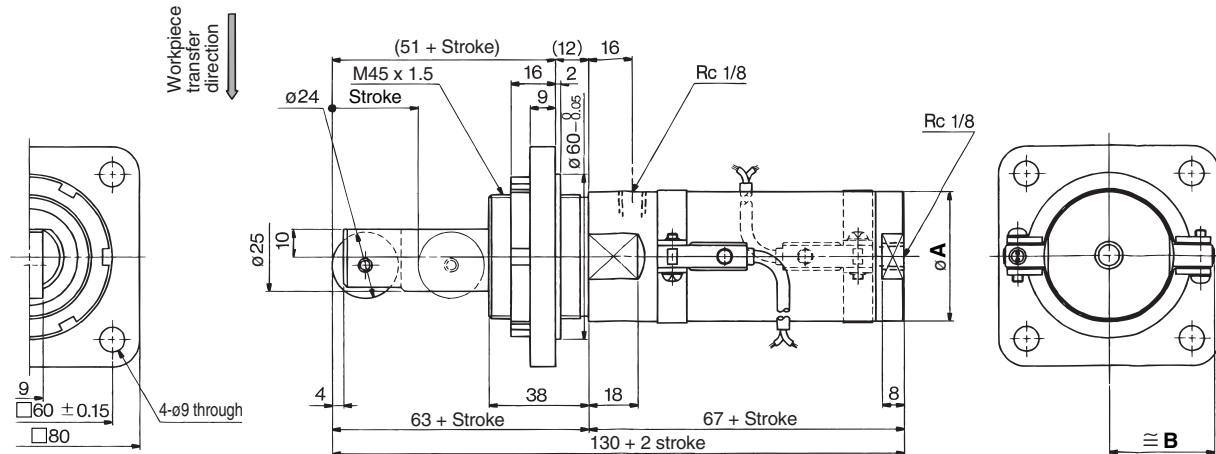
Series RSG

Rod End Configuration: Roller Type

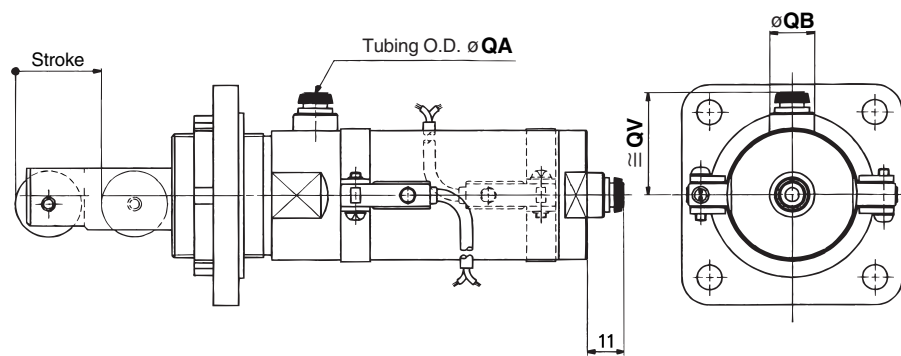
Basic style: Flange mounting

These 2 figures show the piston rod extended.

Bore size: $\varnothing 40, \varnothing 50$ RS□G□-□□R



Built-in One-touch fittings



Bore size (mm)	A	B	QA	QB	QV
40	47	35	6	13	33
50	58	40.5	8	16	38.5



Note 1) Body dimensions without auto switch are the same as drawing above.

Note 2) In the case of single acting type, a One-touch fitting is on the rod side only.

Note 3) These figures show the dimensions when equipped with D-C7/C8 type auto switches.

Note 4) These figures show the piston rod extended.

Note 5) For the auto switch mounting position and its mounting height, refer to page 10-8-24.

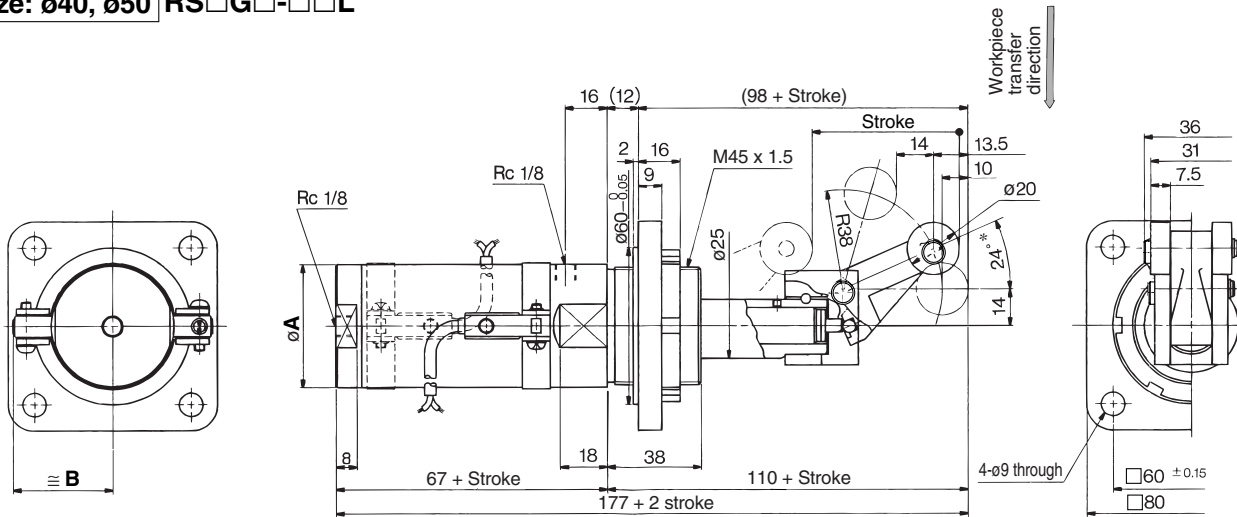
Stopper Cylinder: Adjustable Mounting Height Series RSG

Rod End Configuration: Lever Type with Shock Absorber

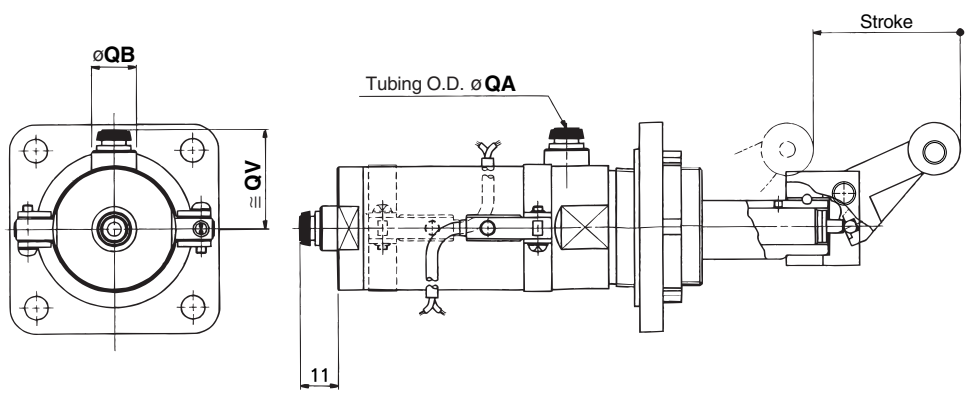
Basic style: Flange mounting

These 2 figures show the piston rod extended.

Bore size: $\phi 40, \phi 50$ RS□G□-□□L



Built-in One-touch fittings



Bore size (mm)	A	B	QA	QB	QV
40	47	35	6	13	33
50	58	40.5	8	16	38.5

- Note 1) Body dimensions without auto switch are the same as drawing above.
- Note 2) In the case of single acting type, a One-touch fitting is on the rod side only.
- Note 3) These figures show the dimensions when equipped with D-C7/C8 type auto switches.
- Note 4) These figures show the piston rod extended.
- Note 5) For the auto switch mounting position and its mounting height, refer to page 10-8-24.

- RE^A_B
- REC
- C□X
- C□Y
- MQ^Q_M
- RHC
- MK(2)
- RS^Q_G
- RS^H_A
- RZQ
- MI^W_S
- CEP1
- CE1
- CE2
- ML2B
- C₆5-S
- CV
- MVGQ
- CC
- RB
- J
- D-
- X
- 20-
- Data

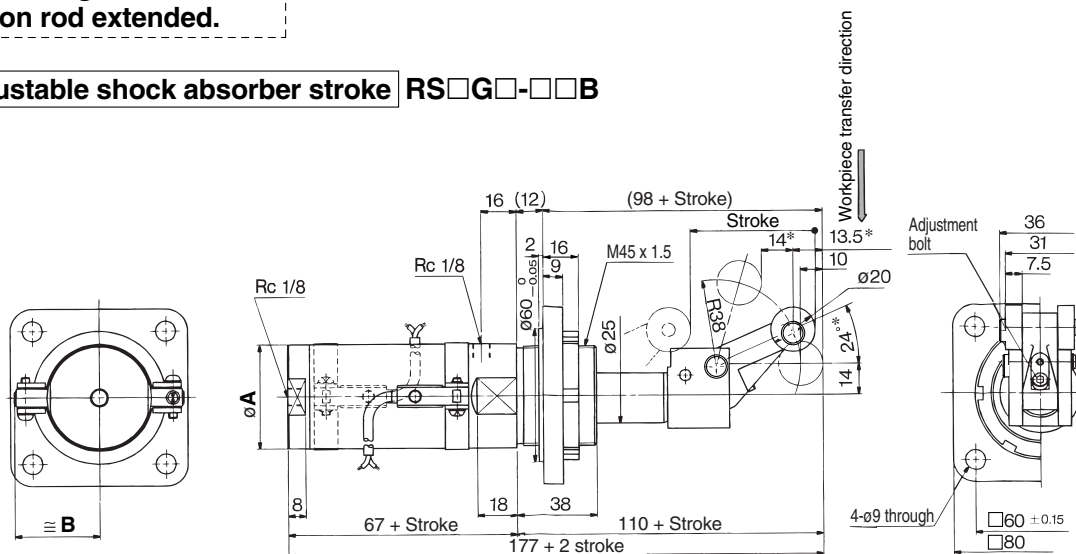
Series RSG

Rod End Configuration: Lever Type with Shock Absorber

Variable energy absorbing type/Flange mounting style

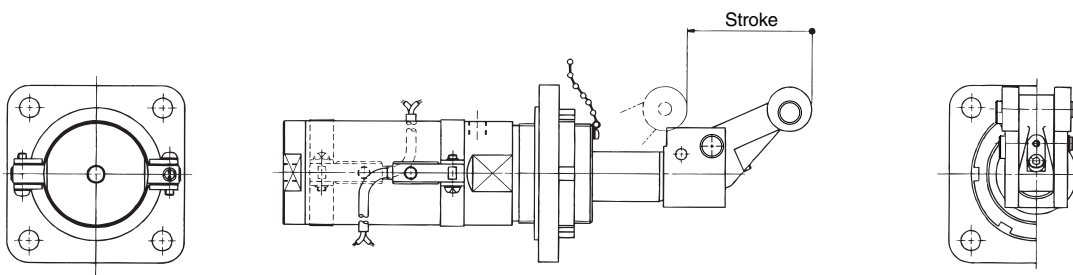
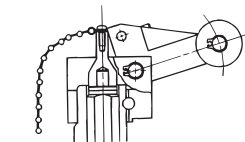
These 2 figures show the piston rod extended.

Adjustable shock absorber stroke **RS□G□-□□B**



With cancel cap **RS□G□-□□C**

* Dimensions when equipped with cancel cap are the same as the drawing above.



Bore size (mm)	A	B
40	47	35
50	58	40.5



Note 1) Body dimensions without auto switch are the same as drawing above.

Note 2) In the case of single acting type, a One-touch fitting is on the rod side only.

Note 3) These figures show the dimensions when equipped with D-C7/C8 type auto switches.

Note 4) These figures show the piston rod extended.

Note 5) For the auto switch mounting position and its mounting height, refer to page 10-8-24.

Note 6) The figure shows these dimensions when the adjustment bolt is lowered (when energy absorption is at its maximum).

However, these dimensions change within the ranges shown below as the adjusting bolt is raised (energy absorption is reduced).
 $24^{\circ*} \rightarrow 16^{\circ*}$, $13.5^{\circ*} \rightarrow 11.5^{\circ*}$, $14^{\circ*} \rightarrow 16^{\circ*}$

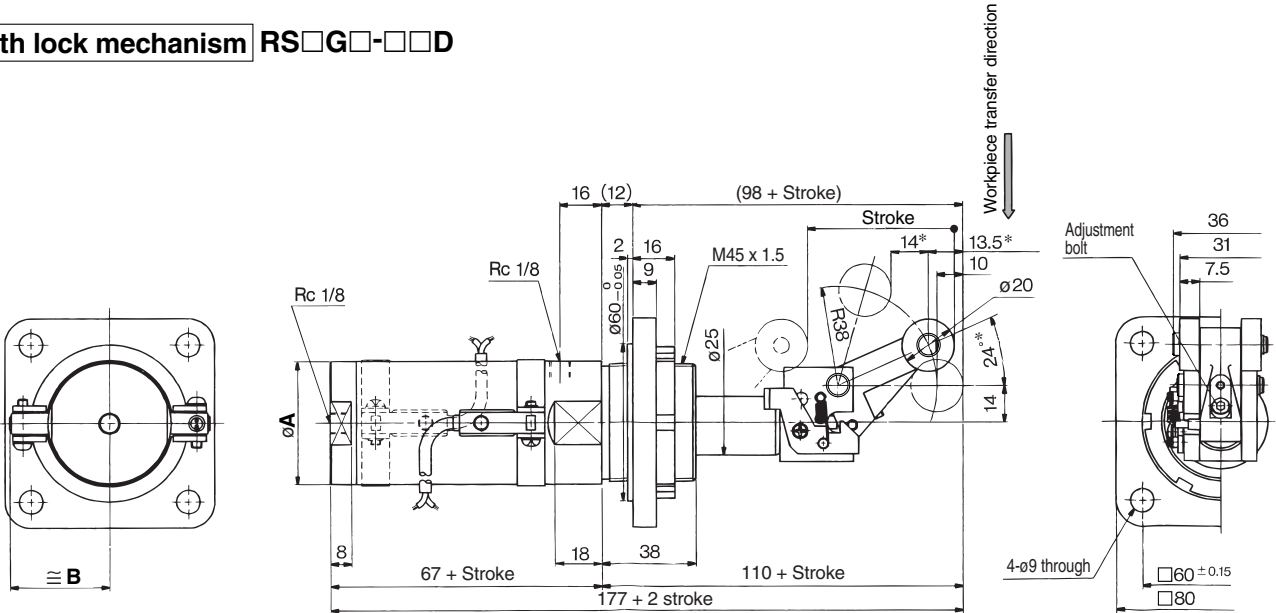
Stopper Cylinder: Adjustable Mounting Height Series RSG

Rod End Configuration: Lever Type with Shock Absorber

Variable energy absorbing type/Flange mounting style

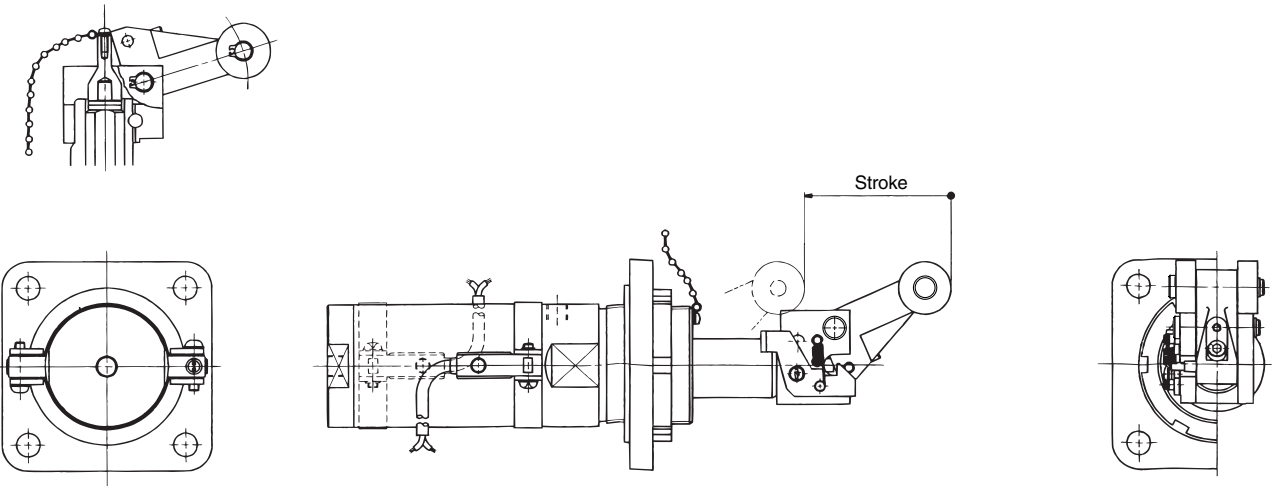
These 2 figures show the piston rod extended.

With lock mechanism RS□G□-□□D



With lock mechanism + Cancel cap RS□G□-□□E

* Dimensions when equipped with lock and cancel cap are the same as the figure drawing.



Bore size (mm)	A	B
40	47	35
50	58	40.5



- Note 1) Body dimensions without auto switch are the same as drawing above.
- Note 2) In the case of single acting type, a One-touch fitting is on the rod side only.
- Note 3) These figures show the dimensions when equipped with D-C7/C8 type auto switches.
- Note 4) These figures show the piston rod extended.
- Note 5) For the auto switch mounting position and its mounting height, refer to page 10-8-24.
- Note 6) The figure shows these dimensions when the adjustment bolt is lowered (when energy absorption is at its maximum). However, these dimensions change within the ranges shown below as the adjusting bolt is raised (energy absorption is reduced).
 $24^{\circ*} \rightarrow 16^{\circ*}$, $13.5^{\circ*} \rightarrow 11.5^{\circ*}$, $14^{\circ*} \rightarrow 16^{\circ*}$

RE_B^A

REC

C□X

C□Y

MQ_M^Q

RHC

MK(2)

RS_G^Q

RS_A^H

RZQ

MI_S^W

CEP1

CE1

CE2

ML2B

C₅-S

CV

MVGQ

CC

RB

J

D-

-X

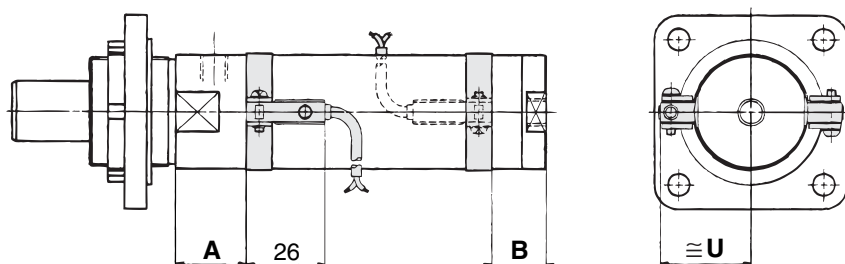
20-

Data

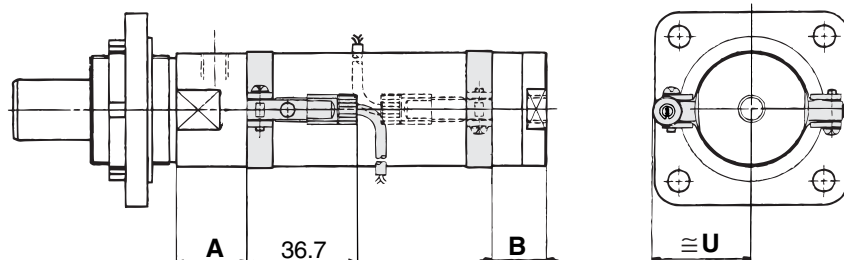
Series RSG

Proper Auto Switch Mounting position (Detection at stroke end) and Its Mounting Height

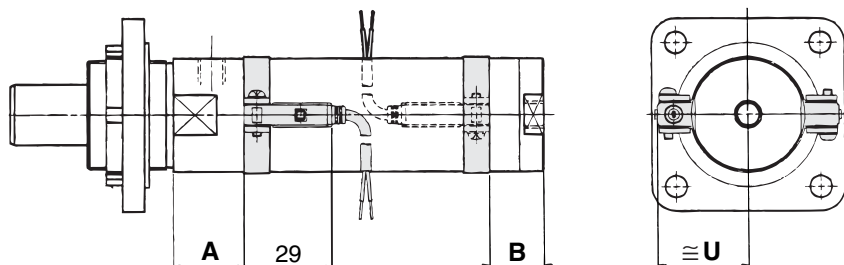
D-C7
D-C8



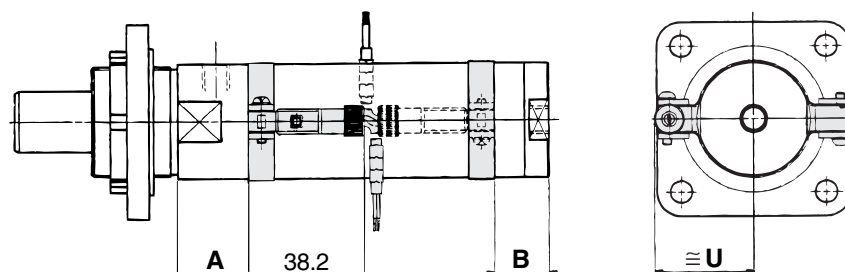
D-C73C
D-C80C



D-H7
D-H7□W
D-H79F
D-H7BAL



D-H7C



Proper Auto Switch Mounting Position

Auto Switch Mounting Height

Auto switch model	D-C7 D-C8		D-H7BAL D-H7□W D-H7 D-H7C		D-H7NF		D-C7 D-C8 D-H7 D-H7□W D-H79F D-H7BAL	D-H7C	D-C73C D-C80C
	A	B	A	B	A	B			
Bore size (mm)							U	U	U
40	22.0	26.0	21.0	25.0	19.5	23.5	35.0	38.0	37.5
50	30.0	18	29.0	17.0	27.5	15.5	40.5	43.5	43.0

Operating Range

Auto switch model	Bore size (mm)	
	40	50
D-C7□/C80 D-C73C/C80C	10	10
D-H7□/H7□W D-H7BAL/H7NF	5	6
D-H7C	10	9.5

Other than the models listed in "How to Order", the following auto switches are applicable. For detailed specifications, refer to page 10-20-1.

Type	Model	Electrical entry	Features
Reed switch	D-C80	Grommet	Without indicator light
	D-C80C	Connector	

* Since this is a guideline including hysteresis, not meant to be guaranteed. (Assuming approximately ±30% dispersion)
There may be the case to change substantially depending on an ambient environment.