

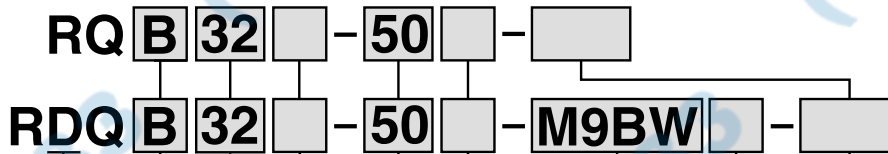
Compact Cylinder with Air Cushion

Series RQ

∅20, ∅25, ∅32, ∅40, ∅50, ∅63, ∅80, ∅100

How to Order

With auto switch



With auto switch
(Built-in magnet)

Mounting bracket

B	Through-hole (Standard)	F	Rod side flange style
A	Both ends tapped style	G	Head side flange style
L	Foot style	D	Double clevis style

Note 1) Mounting brackets are packed together when shipped (unassembled).

Note 2) Since sizes ∅20 and ∅25 have a body with type B (Through-hole) and type A (Both ends tapped style) in common, there is no type A part number.

Example) RQA 20-30 does not exist.

Note 3) Cylinder mounting bolts are not included. Order them separately referring to Mounting Bolts for RQB on page 776.

Bore size

20	20 mm
25	25 mm
32	32 mm
40	40 mm
50	50 mm
63	63 mm
80	80 mm
100	100 mm

Body option

Nil	Rod end female thread (Standard)
M	Rod end male thread

Cylinder stroke (mm)

Refer to "Standard Stroke" on page 775.

Thread type

Nil	M thread	∅20, 25
	Rc	
TN	NPT	∅32 to ∅100
TF	G	

Made to Order
For details, refer to page 775.

Number of auto switches

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

Auto switch

Nil	Without auto switch
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* Refer to the table below for the applicable auto switch model.

Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.

(Example) RDQL40-50

Applicable Auto Switch/Refer to pages 1263 to 1371 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-wired connector	Applicable load					
					DC	AC	Perpendicular		In-line	0.5 (Nil)	1 (M)	3 (L)	5 (Z)			None (N)				
							∅20, ∅25	∅32 to ∅100									∅20, ∅25	∅32 to ∅100		
Solid state switch		Grommet		3-wire (NPN)	24 V	5 V, 12 V		M9NV	M9N	●	●	●	○	—	○	IC circuit				
				3-wire (PNP)				M9PV	M9P	●	●	●	○	—	○					
		2-wire	M9BV	M9B				●	●	●	○	—	○	—						
		—	J79C	—				●	—	●	●	—	—							
	Diagnostic indication (2-color indication)	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NWV	M9NW	●	●	●	○	—	○	IC circuit				
				3-wire (PNP)				M9PWV	M9PW	●	●	●	○	—	○					
				2-wire				M9B WV	M9B W	●	●	●	○	—	○		—			
				3-wire (NPN)				M9NAV	M9NA	○	○	●	○	—	○					
				3-wire (PNP)				M9PAV	M9PA	○	○	●	○	—	○		IC circuit			
				2-wire				M9BAV	M9BA	○	○	●	○	—	○					
With diagnostic output (2-color indication)			4-wire	5 V, 12 V	—	—	F79F	●	—	●	○	—	○	IC circuit						
Reed switch		Grommet	Yes	3-wire (NPN equiv.)	24 V	5 V	—	A96V	A96	●	—	●	—	—	—	IC circuit				
				—				A72	—	A72H	●	—	●	—	—		—			
				12 V				100 V	A93V	A93	●	—	●	—	—					
		Connector	No	Yes	2-wire	24 V	5 V, 12 V	100 V or less	—	A90V	A90	●	—	●	—	—	IC circuit			
										12 V	—	A73C	—	●	—	●		●	—	
										5 V, 12 V	24 V or less	A80C	—	●	—	●		●	—	IC circuit
										—	—	A79W	—	●	—	●		—	—	

* Lead wire length symbols: 0.5 m..... Nil (Example) M9NW
 1 m..... M (Example) M9NWM
 3 m..... L (Example) M9NWL
 5 m..... Z (Example) M9NWZ
 None..... N (Example) J79CN

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

* Besides the models in the above catalog, there are some other auto switches that are applicable. For more information, refer to page 788.

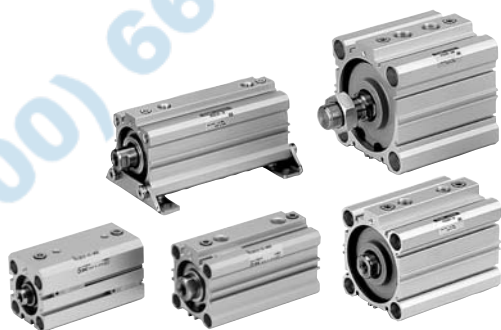
* Refer to pages 1328 and 1329 for the details of auto switches with a pre-wired connector.

* When mounting D-A9□(V)/M9□(V)/M9□W(V)/M9□A(V)/L types on a side other than the port side with ∅32 to ∅50 cylinders, order auto switch mounting brackets separately. Refer to page 788 for details.

* When mounting brackets (foot/flange style) are used, then in some cases auto switches cannot be retrofitted.

Compact Cylinder with Air Cushion **Series RQ**

Specifications



Bore size (mm)	20	25	32	40	50	63	80	100
Lubrication	Not required (non-lube)							
Fluid	Air							
Proof pressure	1.5 MPa							
Maximum operating pressure	1.0 MPa							
Minimum operating pressure	0.05 MPa							
Ambient and fluid temperature	Without auto switch: -10°C to 70°C (No freezing) With auto switch: -10°C to 60°C (No freezing)							
Rod end thread	Female thread							
Stroke length tolerance	+1.0 0							
Mounting	Through-hole							
Piston speed	50 to 500 mm/s							

Standard Stroke

Bore size (mm)	Standard stroke (mm)
20, 25	15, 20, 25, 30, 40, 50
32, 40	20, 25, 30, 40, 50, 75, 100
50, 63	30, 40, 50, 75, 100
80, 100	40, 50, 75, 100



Made to Order

(For details, refer to pages 1420 and 1470.)

Symbol	Specifications
-XC4	With heavy duty scraper
-XC35	With coil scraper (For ø32 to 100 only)

Allowable kinetic energy

Refer to "Selection" on page 789 regarding the allowable kinetic energy.

Effective Cushion Length

Bore size (mm)	20	25	32	40	50	63	80	100
Effective cushion length (mm)	5.8	6.1	6.6	6.6	7.1	7	7.5	8

Mounting Bracket Part No.

Bore size (mm)	Note 1) Foot		Note 3) Double clevis	
	Foot	Flange	Double clevis	Double clevis
20	CQS-L020	CQS-F020	CQS-D020	CQS-D020
25	CQS-L025	CQS-F025	CQS-D025	CQS-D025
32	CQ-L032	CQ-F032	CQ-D032	CQ-D032
40	CQ-L040	CQ-F040	CQ-D040	CQ-D040
50	CQ-L050	CQ-F050	CQ-D050	CQ-D050
63	CQ-L063	CQ-F063	CQ-D063	CQ-D063
80	CQ-L080	CQ-F080	CQ-D080	CQ-D080
100	CQ-L100	CQ-F100	CQ-D100	CQ-D100

Note 1) When ordering foot brackets, order 2 pieces per cylinder.

Note 2) The following parts are included with each bracket.

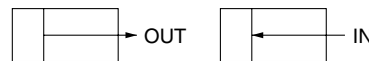
Foot/Flange : Body mounting bolts.

Double clevis: Clevis pins, type C retaining ring for axis, and Body mounting bolts.

Manufacture of Intermediate Stroke

Description	Exclusive body	
Part no.	Refer to "How to Order" for standard model	
Method	Available in stroke increments of 1mm, using an exclusive body for the specified stroke.	
Stroke range	Bore size	Stroke range
	20, 25	16 to 49
	32, 40	21 to 99
	50, 63	31 to 99
	80, 100	41 to 99
Example	Part no.: RQB32-47 A special tube is manufactured for a 47mm stroke.	

Theoretical Output



(N)

Bore size (mm)	Operating direction	Operating pressure (MPa)		
		0.3	0.5	0.7
20	IN	71	118	165
	OUT	94	157	220
25	IN	113	189	264
	OUT	147	245	344
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
80	IN	1360	2270	3170
	OUT	1510	2510	3520
100	IN	2140	3570	5000
	OUT	2360	3930	5500

CUJ

CU

CQS

CQ2

RQ

CQM

MU

D-□

-X□

Individual
-X□

Technical
data