

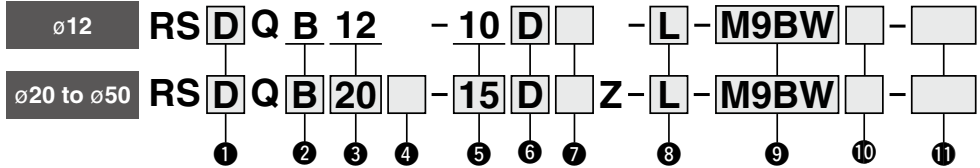
Stopper Cylinder Fixed Mounting Height

RSQ Series

ø12, ø16, ø20, ø32, ø40, ø50

RoHS

How to Order



1 With auto switch

Nil	Without magnet for switch*1
D	With auto switch (Built-in magnet)

*1 In the case of without magnet for switch, auto switch cannot be mounted.

2 Mounting

B	Through-hole
A	Both ends tapped

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

3 Bore size

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

4 Port thread type

Nil	M thread	ø12, ø16
	Rc	
TN	NPT	ø20 to ø50
TF	G	
F	Built-in One-touch fittings*2	

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

* TF for ø20 indicates M5.

5 Cylinder stroke [mm]

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

6 Action

D	Double acting
B	Double acting with spring loaded
T	Single acting / spring extend

7 Rod end configuration

Nil	Round bar
F	Round bar with female rod end*3
K	Chamfered
G	Chamfered with female rod end*3
R	Roller
L	Lever (Fixed absorber type)
B	Lever (Adjustable absorber type)
C	Lever (Adjustable absorber type) with cancel cap
D	Lever (Adjustable absorber type) with lock mechanism
E	Lever (Adjustable absorber type) with lock mechanism and cancel cap

* The lever type rod end is applicable only to bore sizes ø32, ø40, and ø50.

*3 Excluding ø12

8 Mounting bolt

Nil	None
L	Shipped together

* Mounting bolt is shipped together only when the "Mounting" symbol is B. For details about the mounting bolt sizes, refer to page 562.

9 Auto switch

Nil	Without auto switch
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* For applicable auto switches, refer to the table below.

10 Number of auto switches

Nil	2
S	1

11 Made to order

For details, refer to page 561.

Applicable Auto Switches/Refer to pages 941 to 1067 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)				
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	—	○	IC circuit	Relay, PLC
				3-wire (PNP)				M9PV	M9P	●	●	●	○	—	○		
	2-wire			M9BV				M9B	●	●	●	○	—	○	—		
	3-wire (NPN)			M9NWV				M9NW	●	●	●	○	—	○	IC circuit		
	3-wire (PNP)			M9PWV				M9PW	●	●	●	○	—	○			
	2-wire			M9BWV				M9BW	●	●	●	○	—	○	—		
	Water-resistant (2-color indicator)	3-wire (NPN)	M9NAV ¹	M9NA ¹	○	○	○	●	—	○	IC circuit						
		3-wire (PNP)	M9PAV ¹	M9PA ¹	○	○	○	●	—	○							
		2-wire	M9BAV ¹	M9BA ¹	○	○	○	●	—	○	—						
		2-wire (Non-polar)	—	—	P3DWA	●	—	●	●	—	○	—					
Reed auto switch	—	Grommet	Yes	2-wire (NPN equivalent)	—	5 V	—	A96V	A96	●	—	●	—	—	—	IC circuit	—
				No	2-wire	24 V	12 V	100 V	A93V ²	A93	●	●	●	—	—	—	—
		5 V, 12 V	100 V or less				A90V	A90	●	—	●	—	—	—	—	IC circuit	—

*1 Water-resistant type auto switches can be mounted on the above models, but SMC cannot guarantee water resistance.

Please contact SMC regarding water-resistant types with the above model numbers.

*2 The 1 m lead wire is only applicable to the D-A93.

* Lead wire length symbols: 0.5 m..... Nil (Example) M9NW
1 m..... M (Example) M9NWM
3 m..... L (Example) M9NWL
5 m..... Z (Example) M9NZW

* Solid state auto switches marked with "○" are produced upon receipt of order.
* The D-P3DWA□ is mountable on bore size ø32 to ø50.

* Since there are applicable auto switches other than those listed above, refer to page 574-1 for details.



Specifications

Bore size [mm]	12	16	20	32	40	50
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 temperatures	Without auto switch: -10°C to 70°C With auto switch: -10°C to 60°C (No freezing)					
Lubricant	Not required (Non-lube)					
Cushion	Rubber bumper					
Stroke length tolerance	$\pm 1.4 \pm 1$ 0					
Piston speed	50 to 500 mm/s					
Mounting	Through-hole, Both ends tapped					

*1 Stroke length tolerance does not include the amount of bumper change.

Standard Strokes

Bore size	Rod end configuration [mm]	
	Round bar, Chamfered, Roller	Lever
12	10	—
16	10, 15	—
20	10, 15, 20	—
32		10, 15, 20
40	20, 25, 30	20, 25, 30
50		



Made to Order
Common Specifications
[Click here for details](#)

Symbol	Specifications
-XA□	Change of rod end shape
-XB11	Long stroke type*1
-XC3	Special port location

*1 Double acting, Round bar type only.

For details of cylinders with auto switches ⇨ pages 572 to 574-1

- Auto Switch Proper Mounting Position (Detection at stroke end) and Mounting Height
- Operating Range
- Auto Switch Mounting Brackets/Part Nos.

Spring Force (Single acting / spring extend)

Bore size [mm]	Extended [N]	Compressed [N]
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, chamfered, and roller type rod end configurations.

RSQ

RSQ

RS2H

RSH

MIW

MIS

D-□

-X□