

Compact Cylinder: Standard Double Acting, Single Rod

Series CQ2

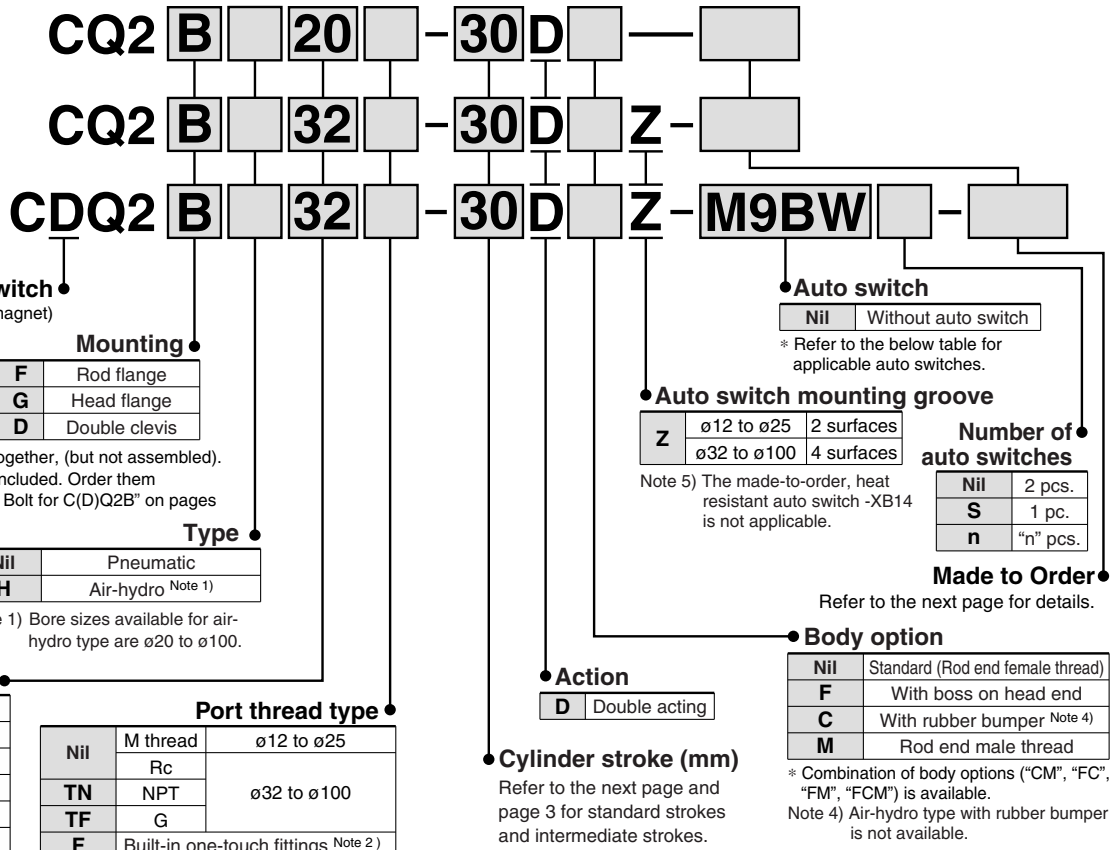
ø12, ø16, ø20, ø25, ø32, ø40, ø50, ø63, ø80, ø100

How to Order

Without auto switch
ø12 to ø25

Without auto switch
ø32 to ø100

With auto switch



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) CDQ2L32-25DZ

Refer to pages 1263 to 1371 in Best Pneumatics No. 2 for further information on auto switches.
Refer to the individual catalog (ES20-201) for the D-P3DW type.

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	●	●	●	○	—	○				
	Diagnostic indication (2-color indication)			3-wire (NPN)				5 V, 12 V	M9NVV	M9NW	●	●	●	○	—	○		IC circuit
	Water resistant (2-color indication)			3-wire (PNP)				5 V, 12 V	M9PVV	M9PW	●	●	●	○	—	○		
				2-wire				12 V	M9BVV	M9BW	●	●	●	○	—	○		
				3-wire (NPN)				5 V, 12 V	M9NAV**	M9NA**	○	○	●	○	—	○		IC circuit
				3-wire (PNP)				12 V	M9PAV**	M9PA**	○	○	●	○	—	○		
	2-wire			12 V				M9BAV**	M9BA**	○	○	●	○	—	○	—		
	Magnetic field resistant (2-color indication)			2-wire (Non-polar)				—	—	P3DW	●	—	●	●	—	○		—
Reed auto switch	——	Grommet	Yes	3-wire (NPN equivalent)	24 V	5 V 12 V	— 100 V or less	A96V	A96	●	—	●	—	—	—	IC circuit	Relay, PLC	
				2-wire				A93V	A93	●	—	●	—	—	—	—		—
								A90V	A90	●	—	●	—	—	—	—		—

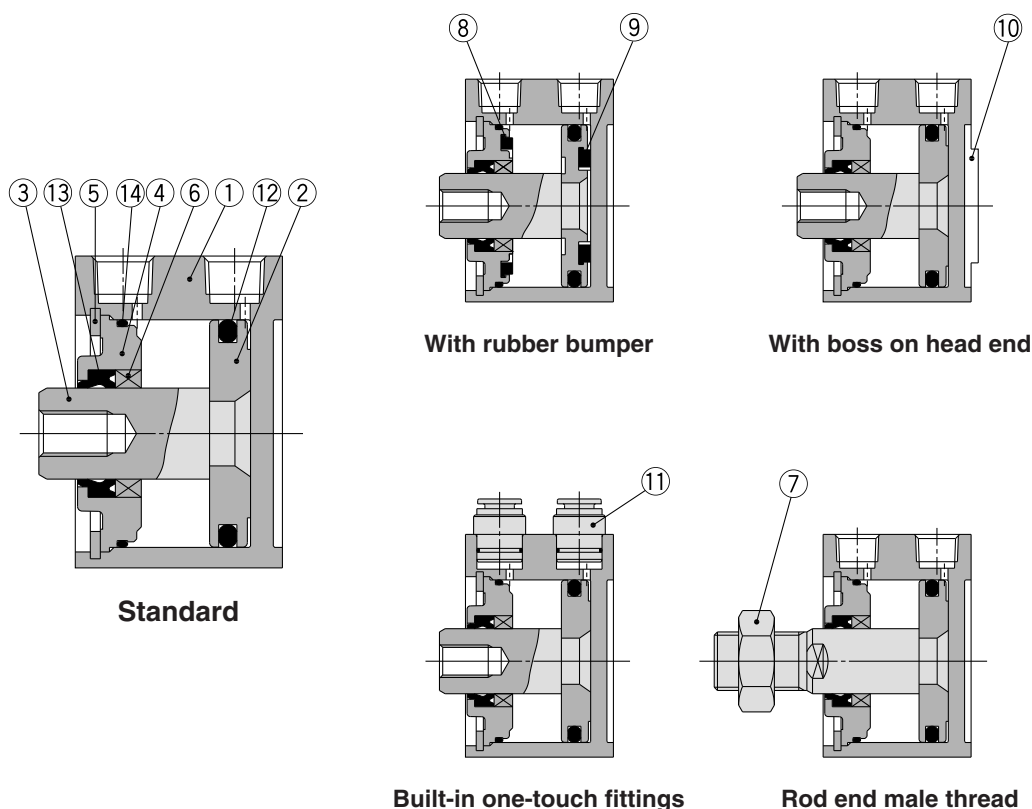
* Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance.
If water resistance is needed, we recommend water resistant cylinders be used. (Page 156)

* Lead wire length symbols: 0.5 m Nil (Example) M9NV
1 m M (Example) M9NVW
3 m L (Example) M9NWL
5 m Z (Example) M9NWZ

* There are other applicable auto switches other than the listed above. For details, refer to page 175.

* For details about auto switches with pre-wired connector, refer to pages 1328 and 1329 in Best Pneumatics No. 2.

Construction



Component Parts

No.	Description	Material	Note
1	Cylinder tube	Aluminum alloy	Hard anodized
2	Piston	Aluminum alloy	Chromated
3	Piston rod	Stainless steel	ø12 to ø25
		Carbon steel	ø32 to ø100, Hard chrome plated
4	Collar	Aluminum alloy	ø12 to ø40, Anodized
		Aluminum alloy casted	ø50 to ø100, Chromated, Painted
5	Retaining ring	Carbon tool steel	Phosphate coated
6	Bushing	Bearing alloy	For ø50 or more only
7	Rod end nut	Carbon steel	Nickel plated
8	Bumper A	Urethane	

No.	Description	Material	Note
9	Bumper B	Urethane	
10	Centering location ring	Aluminum alloy	ø20 to ø100, Hard anodized
11	One-touch fitting	—	ø32 to ø63
12	Piston seal	NBR	
13	Rod seal	NBR	
14	Gasket	NBR	

Replacement Parts/Seal Kit (Pneumatic type)

Bore size (mm)	Kit no.	Contents
12	CQ2B12-PS	Kits include items 12, 13, 14 from the table.
16	CQ2B16-PS	
20	CQ2B20-PS	
25	CQ2B25-PS	
32	CQ2B32-PS	
40	CQ2B40-PS	
50	CQ2B50-PS	
63	CQ2B63-PS	
80	CQ2B80-PS	
100	CQ2B100-PS	

* Seal kit includes 12, 13, 14. Order the seal kit, based on each bore size.
 * Since the seal kit does not include a grease pack, order it separately.
Grease pack part no.: GR-S-010 (10 g)

Replacement Parts/Seal Kit (Air-hydro type)

Bore size (mm)	Kit no.	Contents
20	CQ2BH20-PS	Kits include items 12, 13, 14 from the table.
25	CQ2BH25-PS	
32	CQ2BH32-PS	
40	CQ2BH40-PS	
50	CQ2BH50-PS	
63	CQ2BH63-PS	
80	CQ2BH80-PS	
100	CQ2BH100-PS	

* Seal kit includes 12, 13, 14. Order the seal kit, based on each bore size.
 * Since the seal kit does not include a grease pack, order it separately.
Grease pack part no.: GR-S-010 (10 g)