

Compact Cylinder: Non-rotating Rod Double Acting, Single Rod

CQ2K Series

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

How to Order

Without auto switch ø12 to ø25: **CQ2K B 20 [] - 30 D [] - []**

Without auto switch ø32 to ø63: **CQ2K B 32 [] - 30 D [] Z - []**

With auto switch: **CDQ2K B 32 [] - 30 D [] Z - M9BW [] - []**

Non-rotating rod (Built-in magnet)

Mounting

| | | |
|-----------|-------------------------|---------------|
| B | Through-hole (Standard) | ø12 to ø63 |
| A | Both ends tapped | |
| L | Foot | |
| LC | Compact foot | ø40, ø50, ø63 |
| F | Rod flange | ø63 |
| G | Head flange | |
| D | Double clevis | |

Number of auto switches

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

Auto switch

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

* Refer to the below table for applicable auto switches.

Auto switch mounting groove

| | | |
|----------|------------|------------|
| Z | ø12 to ø25 | 2 surfaces |
| | ø32 to ø63 | 4 surfaces |

Made to Order
Refer to page 868 for details.

Body option

| | |
|------------|--|
| Nil | Standard (Rod end female thread) |
| F | With boss on head end |
| C | With rubber bumper (ø12 with auto switch only) |
| M | Rod end male thread |

* Combination of body options ("FM") is available.

Action

| | |
|----------|---------------|
| D | Double acting |
|----------|---------------|

Cylinder stroke (mm)
Refer to page 868 for standard strokes.

Bore size

| | | | |
|-------------|-------|----|-------|
| 12 (Note 1) | 12 mm | 32 | 32 mm |
| 16 | 16 mm | 40 | 40 mm |
| 20 | 20 mm | 50 | 50 mm |
| 25 | 25 mm | 63 | 63 mm |

Port thread type

| | | |
|------------|--------------------------------------|------------|
| Nil | M thread | ø12 to ø25 |
| | Rc | |
| TN | NPT | ø32 to ø63 |
| TF | G | |
| F | Built-in One-touch fittings (Note 2) | |

Note 1) When ø12 with auto switch is required, the body option should be with rubber bumper (C).
Example) CDQ2KB12-30DCZ

Note 2) Bore sizes available with One-touch fittings are ø32 to ø63.
* For cylinders without auto switch, M threads are compatible only for ø32-5 mm stroke model.

Refer to pages 1575 to 1701 for further information on auto switches.
Refer to pages 1630 and 1631 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 | Diagnostic indication (2-color indicator) | Grommet | Yes | 3-wire (NPN) | 24 V | 5 V, 12 V | — | M9NV | M9N | ● | ● | ○ | ○ | ○ | IC circuit | |
| | | | | 3-wire (PNP) | | | | M9PV | M9P | ● | ● | ○ | ○ | ○ | | |
| | | | | 2-wire | | | | M9BV | M9B | ● | ● | ○ | ○ | ○ | | ○ |
| | | | | 3-wire (NPN) | | | | M9NWV | M9NW | ● | ● | ○ | ○ | ○ | | ○ |
| | | | | 3-wire (PNP) | | | | M9PWW | M9PW | ● | ● | ○ | ○ | ○ | | ○ |
| | | | | 2-wire | | | | M9BWW | M9BW | ● | ● | ○ | ○ | ○ | | ○ |
| | Water resistant (2-color indicator) | Grommet | Yes | 3-wire (NPN) | 24 V | 5 V, 12 V | — | 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 | 3-wire (NPN equivalent) | 24 V | 5 V, 12 V | 100 V or less | A96V | A96 | ● | — | — | — | IC circuit | | |
| | | | | — | | | | A93V*2 | A93 | ● | ● | ● | — | | — | |
| | | | | 2-wire | | | | A90V | A90 | ● | — | ● | — | | — | — |

*1 Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance.
* Consult with SMC regarding water resistant types with the above model numbers.
* 2 1 m type lead wire is only applicable to D-A93.
* Lead wire length symbols: 0.5 m Nil (Example) M9NV
1 m M (Example) M9NWM
3 m L (Example) M9NWL
5 m Z (Example) M9NWZ

* Solid state auto switches marked with "○" are produced upon receipt of order.
* The D-P3DWA□ type is available from ø25 to ø63 only.

* There are other applicable auto switches other than the listed above. For details, refer to page 970.
* For details about auto switches with pre-wired connector, refer to pages 1648 and 1649.

- CJ
- CU
- CQS
- JCQ
- CQ2
- RQ
- CQM
- CQU
- MU

D-□

-X□

Technical Data