# C(D)Q2, Compact Cylinder, Double Acting Single Rod, Long Stroke w/Auto Switch Mounting Groove

CQ2A63TF-175DCZ

Datasheet

## General series information

- Compact Cylinder: Long Stroke Double Acting, Single Rod
- Bore sizes (mm): 32, 40, 50, 63, 80, 100
- Standard stroke range (mm): 125 to 300
- Port threads: Rc, NPT or G
- Can mount small auto switches on 4 surfaces.

*Double-acting, single-rod cylinder*

## Standard specifications

| | |
|---|---|
| Magnet | None |
| Mounting | A (Both Ends Tapped) |
| Type | Standard |
| Bore Size | Ø63 mm |
| Port Thread | TF [G] |
| Stroke | 175 |
| Cushion | C (Rubber Bumper) |
| Body Option | Standard (Rod End Female Thread) |
| Auto Switch | No Switch |
| Lead Wire or Pre-wired Connector | 0.5 m (Or None in the Case of No Switch) |
| Number | 2 pcs. |
| Rod End Options | None |
| Made of Stainless Steel | None |
| Fluororubber Seal | None |
| Pressure medium | Compressed air |
| Maximum temperature of pressure medium | 70 ºC |
| Minimum temperature of pressure medium | -10 °C |
| Maximum operating pressure | 1.0 MPa |

*Specifications are subject to change without prior notice and any obligation on the part of the manufacturer.*



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| | |
|---|---|
| Minimum operating pressure | 0.05 MPa |
| Proof pressure | 1.5 MPa |
| Maximum ambient temperature | 70 ºC |
| Minimum ambient temperature | -10 °C |
| Number of pneumatic connections | 2 pcs. |
| Pneumatic input connection | G 1/4 |
| Mode of operation of drive | Double acting |
| Maximum piston speed | 500 mm/s |
| Type of cushioning | Elastically |
| Piston rod end | Female-Thread |
| Geometric form of the piston rod | Single rod |
| Male thread of rod end | M18 x 1.5 |
| Female thread of rod end | M10 x 1.5 |
| Minimum piston speed | 50 mm/s |
| Weight | 1.716 Kg |

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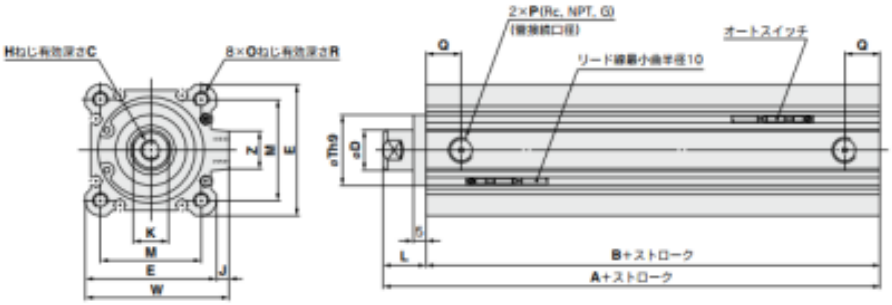
# Dimensions

チューブ内径

## ø32～ø100 オートスイッチ用磁石なし、磁石付

オートスイッチ用磁石なし、付とも外形寸法は同じです。

両端タップタイプ／C回Q2A

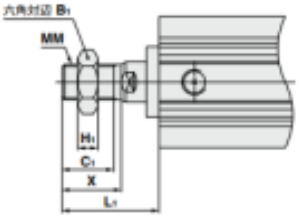



(mm)

| チューブ内径(mm) | ストローク範囲(mm) | A | B | C | D | E | H | J | K | L | M | O | P | Q | R | Th9 | W | Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 32 | 125, 150, 175, 200, 250, 300 | 62.5 | 45.5 | 13 | 16 | 45 | M8×1.25 | 4.5 | 14 | 17 | 34 | M6×1.0 | 1/8 | 10 | 10 | 22 $^{0}_{-0.052}$ | 49.5 | 14 |
| 40 | | 72 | 55 | 13 | 16 | 52 | M8×1.25 | 5 | 14 | 17 | 40 | M6×1.0 | 1/8 | 12.5 | 10 | 28 $^{0}_{-0.052}$ | 57 | 15 |
| 50 | | 73.5 | 55.5 | 15 | 20 | 64 | M10×1.5 | 7 | 17 | 18 | 50 | M8×1.25 | 1/4 | 14 | 14 | 35 $^{0}_{-0.062}$ | 71 | 19 |
| 63 | | 75 | 57 | 15 | 20 | 77 | M10×1.5 | 7 | 17 | 18 | 60 | M10×1.5 | 1/4 | 16.5 | 18 | 35 $^{0}_{-0.062}$ | 84 | 19 |
| 80 | | 86 | 66 | 21 | 25 | 98 | M16×2.0 | 6 | 22 | 20 | 77 | M12×1.75 | 3/8 | 19 | 22 | 43 $^{0}_{-0.062}$ | 104 | 25 |
| 100 | | 97.5 | 75.5 | 27 | 30 | 117 | M20×2.5 | 6.5 | 27 | 22 | 94 | M12×1.75 | 3/8 | 23 | 22 | 59 $^{0}_{-0.074}$ | 123.5 | 25 |

※ロッド先端ナットおよび付属金具の詳細につきましてはP.26、27
注1) 中間ストロークの長手寸法の算出方法につきましてはP.73
注2) オートスイッチの適正取付位置・取付高さ寸法につきましてはP.139～145

ロッド先端おねじ




(mm)

| チューブ内径(mm) | $B_1$ | $C_1$ | $H_1$ | $L_1$ | MM | X |
|---|---|---|---|---|---|---|
| 32 | 22 | 20.5 | 8 | 38.5 | M14×1.5 | 23.5 |
| 40 | 22 | 20.5 | 8 | 38.5 | M14×1.5 | 23.5 |
| 50 | 27 | 26 | 11 | 43.5 | M18×1.5 | 28.5 |
| 63 | 27 | 26 | 11 | 43.5 | M18×1.5 | 28.5 |
| 80 | 32 | 32.5 | 13 | 53.5 | M22×1.5 | 35.5 |
| 100 | 41 | 32.5 | 16 | 53.5 | M26×1.5 | 35.5 |

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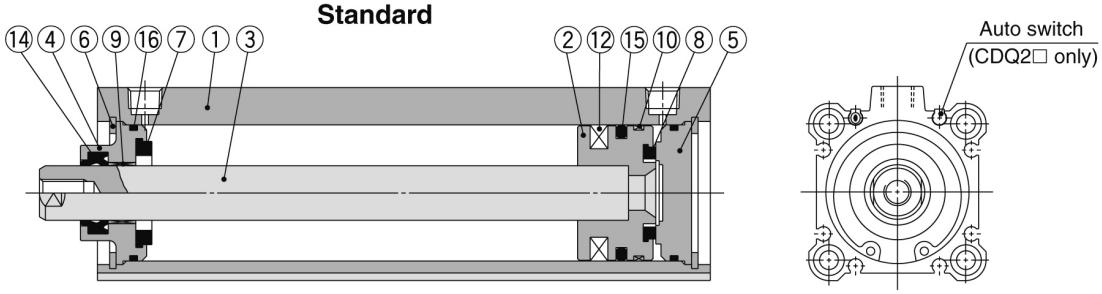
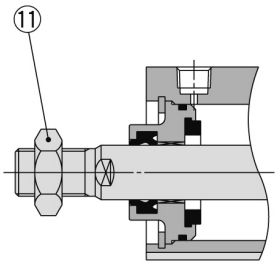
# Constructions

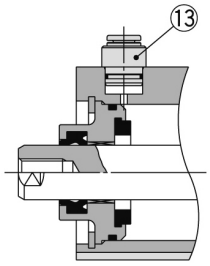
**Standard**




**Rod end male thread**




**Built-in one-touch fittings**




## Component Parts

| No. | Description | Material | Note |
|---|---|---|---|
| 1 | **Cylinder tube** | Aluminum alloy | Hard anodised |
| 2 | **Piston** | Aluminum alloy | Chromated |
| 3 | **Piston rod** | Carbon steel | Hard chrome plated |
| 4 | **Collar** | Aluminum alloy | Anodised |
| 5 | **Bottom plate** | Aluminum alloy | Anodised |
| 6 | **Retaining ring** | Carbon tool steel | Phosphate coated |
| 7 | **Bumper A** | Urethane | |
| 8 | **Bumper B** | Urethane | |
| 9 | **Bushing** | Bearing alloy | |
| 10 | **Wear ring** | Resin | |
| 11 | **Rod end nut** | Carbon steel | Nickel plated |
| 12 | **Magnet** | — | For CDQ2A□ only |
| 13 | **One-touch fitting** | — | ø32 to ø63 |
| 14 * | **Rod seal** | NBR | |
| 15 * | **Piston seal** | NBR | |
| 16 * | **Tube gasket** | NBR | |

## Replacement Parts/Seal Kit

| Bore size (mm) | Kit no. | Contents |
|---|---|---|
| **32** | CQ2A32-L-PS | Kits include items ⑭, ⑮, ⑯ from the table. |
| **40** | CQ2A40-L-PS | |
| **50** | CQ2A50-L-PS | |
| **63** | CQ2A63-L-PS | |
| **80** | CQ2A80-L-PS | |
| **100** | CQ2A100-L-PS | |

* Seal kit includes ⑭, ⑮, ⑯. 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)

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## Additional information

| | |
|---|---|
| Catalogue | CQ2-Z-D_EU.pdf |
| Operation manuals | OM_CQ2x_OM0002MEN.pdf |

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