



## CY3R, Magnetically Coupled Rodless Cylinder (with Switch Rail) CY3R20TF-700

Datasheet

### General series information

- Magnetically coupled rodless cylinder
- Direct mount type, with switch rail
- Bore sizes (mm): 6, 10, 15, 20, 25, 32, 40, 50, 63
- Maximum operating pressure: 0.7MPa
- Ambient temperature: -10 to 60°C
- Variety of auto switches available

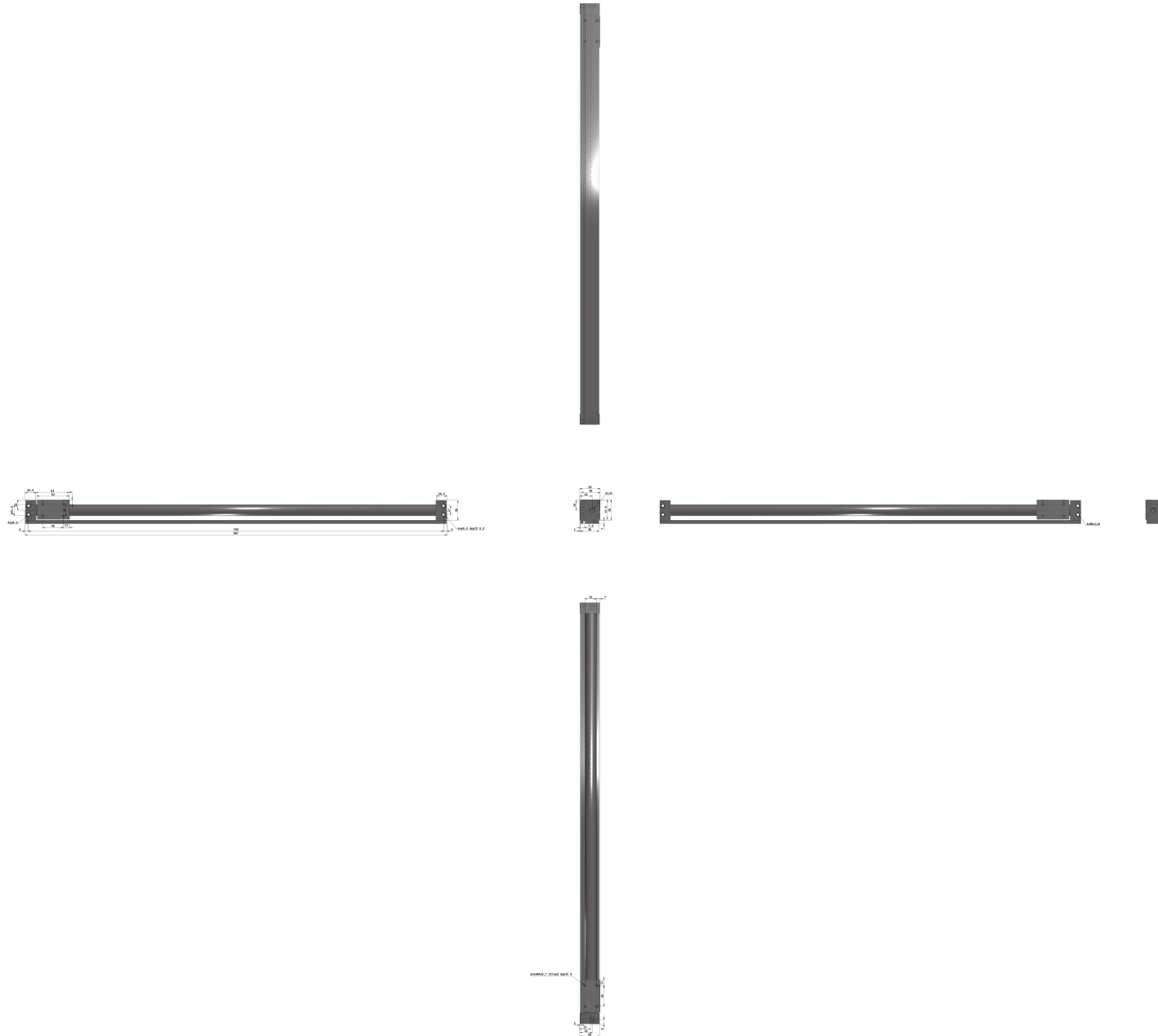


Magnetically coupled rodless cylinder

### Standard specifications

|                                  |                                                            |
|----------------------------------|------------------------------------------------------------|
| Piping                           | Standard                                                   |
| Bore Size                        | 20 mm                                                      |
| Port Thread                      | TF (G)                                                     |
| Stroke                           | 700                                                        |
| Auto Switch                      | No Switch                                                  |
| Lead Wire or Pre-wired Connector | 0.5 m (Or None in the Case of No Switch)                   |
| Number                           | 2 pcs. (Or None in Case of No Switch)                      |
| Maximum operating pressure       | 0.7 MPa                                                    |
| Minimum operating pressure       | 0.16 MPa                                                   |
| Proof pressure                   | 1.05 MPa                                                   |
| Type of cushioning               | Rubber bumper on both ends                                 |
| Lubrication                      | Non-lube                                                   |
| Fluid                            | Air                                                        |
| Ambient and fluid temperature    | -10 - 60 °C                                                |
| Stroke length tolerance          | 0 to 250 st: +1.0 , 251 to 1000 st: +1.4, 1001 st to: +1.8 |
| F450 - Mounting                  | Direct mount type                                          |
| F452 - Magnetic Holding Force    | 231 N                                                      |

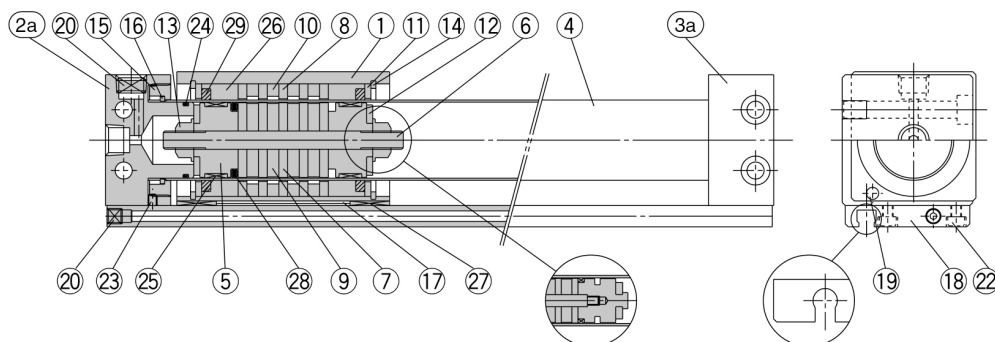
|                      |                                |
|----------------------|--------------------------------|
| Piston speed         | 50 - 500 mm/s                  |
| Mounting orientation | Horizontal, Inclined, Vertical |
| Weight               | 1.135 Kg                       |



## Constructions

### Both sides piping type

#### CY3R15 to 63



#### CY3R15, 20

#### CY3R15

#### Component Parts

| No. | Description                | Material                                                                                                                                                                                                                                                   | Note                                     |
|-----|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1   | Body                       | Aluminum alloy                                                                                                                                                                                                                                             | Hard anodized                            |
| 2a  | End cover A                | Aluminum alloy                                                                                                                                                                                                                                             | Electroless nickel plated                |
| 2b  | End cover C                | Aluminum alloy                                                                                                                                                                                                                                             | Electroless nickel plated                |
| 3a  | End cover B                | Aluminum alloy                                                                                                                                                                                                                                             | Electroless nickel plated                |
| 3b  | End cover D                | Aluminum alloy                                                                                                                                                                                                                                             | Electroless nickel plated                |
| 4   | Cylinder tube              | Stainless steel                                                                                                                                                                                                                                            |                                          |
| 5   | Piston                     | <div> <div> <div>ø6 to ø15</div> <div>Brass</div> </div> <div> <div>ø6 to ø15</div> <div>Electroless nickel plated</div> </div> </div> <div> <div>ø20 to ø63</div> <div>Aluminum alloy</div> </div> <div> <div>ø20 to ø63</div> <div>Chromate</div> </div> |                                          |
| 6   | Shaft                      | Stainless steel                                                                                                                                                                                                                                            |                                          |
| 7   | Piston side yoke           | Rolled steel plate                                                                                                                                                                                                                                         | Zinc chromated                           |
| 8   | External slider side yoke  | Rolled steel plate                                                                                                                                                                                                                                         | Zinc chromated                           |
| 9   | Magnet A                   | Rare earth magnet                                                                                                                                                                                                                                          |                                          |
| 10  | Magnet B                   | Rare earth magnet                                                                                                                                                                                                                                          |                                          |
| 11  | Spacer                     | Aluminum alloy                                                                                                                                                                                                                                             | Black anodized (ø6: not available)       |
| 12  | Bumper                     | Urethane rubber                                                                                                                                                                                                                                            |                                          |
| 13  | Piston nut                 | Carbon steel                                                                                                                                                                                                                                               | Zinc chromate (ø6 to ø15: not available) |
| 14  | C type snap ring for hole  | Carbon tool steel                                                                                                                                                                                                                                          | Nickel plated                            |
| 15  | Attachment ring            | Aluminum alloy                                                                                                                                                                                                                                             | Chromate                                 |
| 16  | C type snap ring for shaft | Hard steel wire                                                                                                                                                                                                                                            |                                          |
| 17  | Magnetic shielding plate   | Rolled steel plate                                                                                                                                                                                                                                         | Chromated (ø6, ø10: not available)       |
| 18  | Switch rail                | Aluminum alloy                                                                                                                                                                                                                                             | White anodized                           |
| 19  | Magnet                     | Rare earth magnet                                                                                                                                                                                                                                          |                                          |
| 20  | Hexagon socket head plug   | Chromium steel                                                                                                                                                                                                                                             | Nickel plated                            |

| No. | Description                   | Material       | Note                                                                                                                  |
|-----|-------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------|
| 21  | Steel balls                   | Chromium steel | <div> <div>ø40</div> <div>Hexagon socket head plug</div> </div> <div> <div>ø20, ø50, ø63</div> <div>None</div> </div> |
| 22  | Hexagon socket head screw     | Chromium steel | Nickel plated                                                                                                         |
| 23  | Hexagon socket head set screw | Chromium steel | Nickel plated                                                                                                         |
| 24* | Cylinder tube Gasket          | NBR            |                                                                                                                       |
| 25* | Wear ring A                   | Special resin  |                                                                                                                       |
| 26* | Wear ring B                   | Special resin  |                                                                                                                       |
| 27* | Wear ring C                   | Special resin  |                                                                                                                       |
| 28* | Piston seal                   | NBR            |                                                                                                                       |
| 29* | Lubretainer                   | Special resin  |                                                                                                                       |
| 30* | Switch rail gasket            | NBR            | Both sides piping type: None                                                                                          |

\* Seal kits are sets consisting of numbers 24 through 30. Order using the kit number corresponding to each bore size.

## Additional information

Catalogue

[CY3-C\\_EU.pdf](#)

Operation manuals

[OM\\_CYBx\\_OM0001EN-A.pdf](#)

[OM\\_CY3R\\_OM0001H\\_EN.pdf](#)