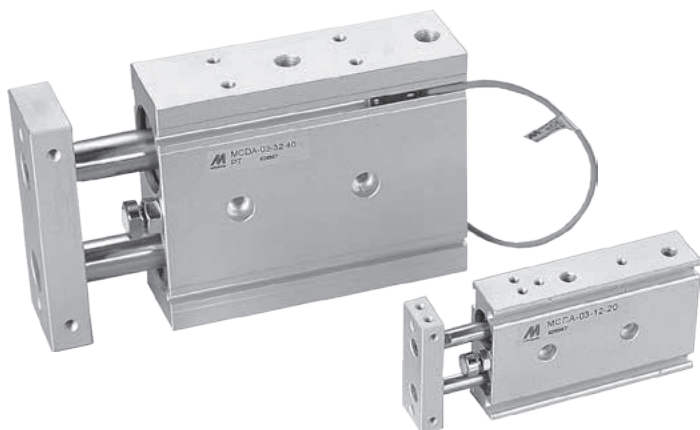


DOUBLE ACTING PNEUMATIC CYLINDERS SERIES MCDA DOUBLE PISTON ROD



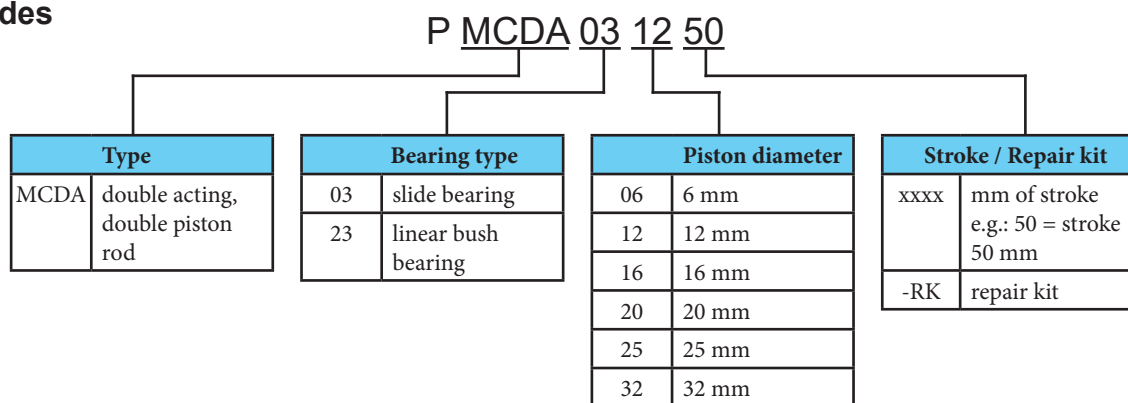
Thin and compact double piston rod cylinders series MCDA with high precision guiding are used not only for precision picking and placing. High lateral load can be applied due to highly accurate slide bearing and linear bush bearing. Cylinders are equipped with magnet for proximity switches. The body and plate are reserved with many holes and threads for mounting. It is suitable for various mounting requirements. There is no adjustable cushioning, for cushioning at the end positions the rubber pad is used.

| | |
|------------------|--|
| Working pressure | 0.5 MPa |
| Min. pressure | 0.15 MPa for $\varnothing 6$ 0.1 MPa for $\varnothing 12$ and 16 0.05 MPa for $\varnothing 20$ to 32 |
| Max. pressure | 0.7 MPa |
| Temp. range | -5°C to +60°C |
| Working medium | modified compressed air |

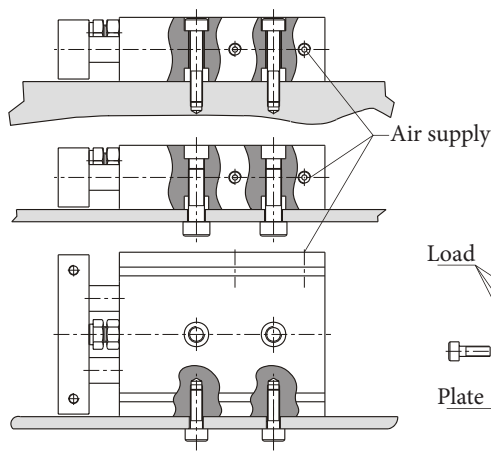
| Piston diameter [mm] | 6 | 12 | 16 | 20 | 25 | 32 |
|-----------------------------|----------|-----|------------|------------|------------|------------|
| Thrust at 0.6 MPa [N] | 34 | 136 | 241 | 377 | 589 | 965 |
| Return force at 0.6 MPa [N] | 19 | 102 | 181 | 283 | 453 | 724 |
| Connection | M5 | M5 | M5 | G1/8" | G1/8" | G1/8" |
| Max. stroke [mm] | 30 (50*) | 75 | 100 (120*) | 100 (130*) | 100 (150*) | 100 (150*) |

*) Please consult our technical dept. if you require other than standard stroke (see table below)

Order codes

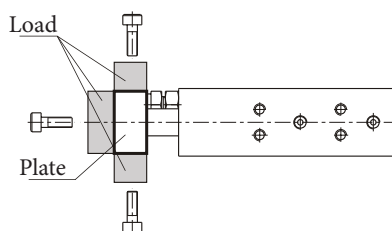


Various examples of mounting the cylinder:

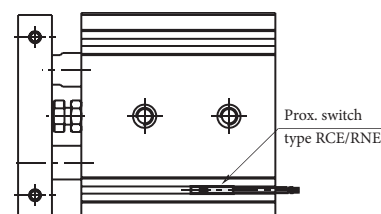


| Piston dia. [mm] | Standard stroke [mm]* | | | | | | | | | | | | | | |
|------------------|-----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 60 | 70 | 75 | 80 | 90 | 100 |
| 6 | • | | • | | • | | | | | | | | | | |
| 12 | • | • | • | • | • | • | • | • | • | • | • | • | | | |
| 16 to 32 | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |

*) Please consult us if stroke is out of specification
Note: Each standard stroke is adjustable in range 0 to +5 mm



Installation of proximity switch



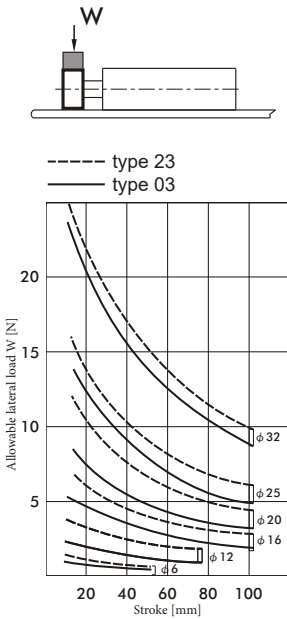
Construction / materials

- caps: aluminium alloy
- body: aluminium alloy
- piston rod (type 03): stainless steel for piston dia. up to 20 mm incl., carbon steel for piston dia. 25 and 32 mm
- piston rod (type 23): bearing steel
- plate: aluminium alloy
- bearing: copper alloy for slide bearing, linear bush bearing

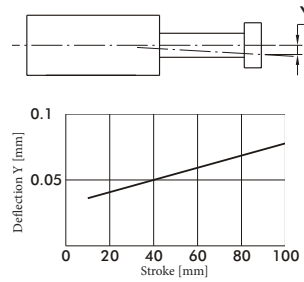
i In case of proximity sensing request, please use switches series RCE/RPE/RNE - see page 3-8 for detail

Allowable load

Allowable lateral load

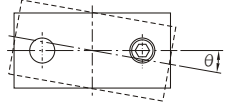


Capacity for use as a pusher

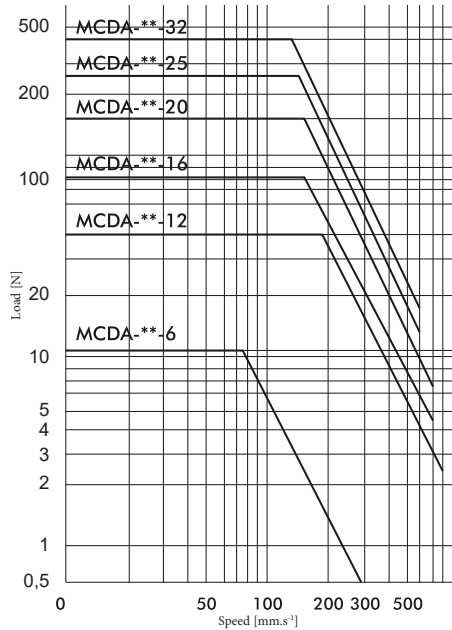


In the actual operation, load at the top should be below the allowable top load.

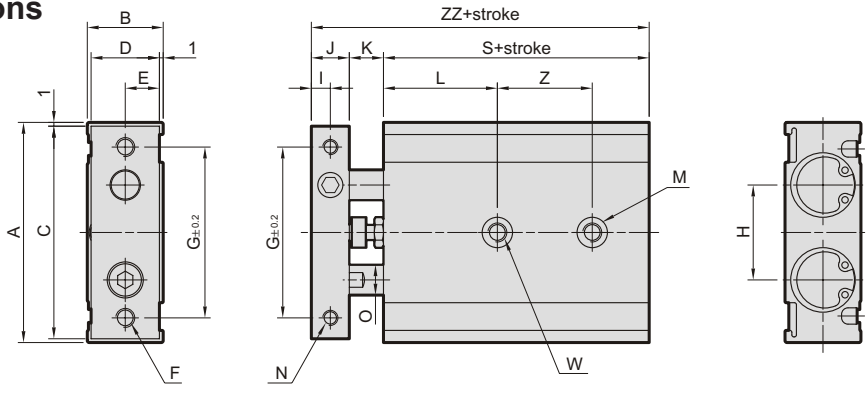
Anti-roll accuracy



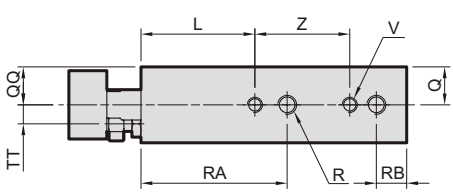
| Type | Piston dia. [mm] |
|------|------------------|
| 03 | ±0.1° |
| 23 | ±0.15° |



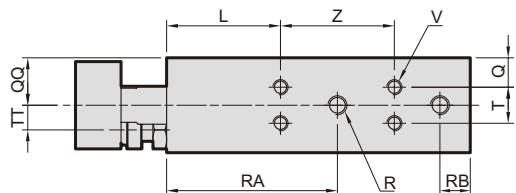
Dimensions



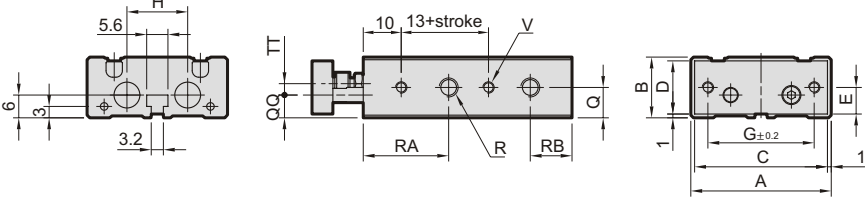
Piston diameter 12 and 16 mm



Piston diameter 20 to 32 mm



Piston diameter 6 mm



| Ø | Z (for stroke) | | | | |
|----|-------------------------|-------|-------|----|--------|
| | 10-25 | 30-50 | 60-75 | 80 | 90-100 |
| 6 | 10+1/2 stroke (10-30mm) | | | | |
| 12 | 30 | 40 | 50 | — | — |
| 16 | 25 | 35 | 45 | 45 | 55 |
| 20 | 30 | 40 | 60 | 60 | 60 |
| 25 | 30 | 40 | 60 | 60 | 60 |
| 32 | 40 | 50 | 70 | 70 | 70 |

| Ø | A | B | C | D | E | F (thru) | G | H | I | J | K | L | M (both sides) | N (both sides) | O | Q | QQ | R (both sides) | RA | RB | S | T | TT | V (both sides) | W (thru) | ZZ |
|----|----|----|----|----|------|----------|----|----|------|-----|----|----|------------------------------|----------------|----|------|------|----------------|------|----|----|-----|------|----------------|----------|------|
| 6 | 37 | 16 | 35 | 14 | 7 | 2xM3 | 28 | 16 | 2.75 | 5.5 | 8 | 13 | 2xØ6.5 dp. 3.3 ¹⁾ | 2xM3 thru | 4 | 8 | 6 | 4xM5 | 22.5 | 11 | 45 | — | 3 | 4xM3 dp. 4.5 | 2xØ3.4 | 58.5 |
| 12 | 46 | 18 | 44 | 16 | 8 | 2xM4 | 35 | 19 | 4 | 8 | 9 | 20 | 4xØ6.5 dp. 3.3 | 4xM3 dp. 5 | 6 | 9 | 10 | 4xM5 | 30 | 8 | 55 | — | 3.5 | 4xM3 dp. 4.5 | 2xM4 | 72 |
| 16 | 58 | 20 | 56 | 18 | 9 | 2xM5 | 45 | 25 | 5 | 10 | 9 | 30 | 4xØ8 dp. 4.4 | 4xM4 dp. 6 | 8 | 10 | 10 | 4xM5 | 38.5 | 8 | 60 | — | 5 | 4xM4 dp. 5 | 2xM5 | 79 |
| 20 | 64 | 25 | 62 | 23 | 11.5 | 2xM5 | 50 | 28 | 6 | 12 | 12 | 30 | 4xØ9.5 dp. 5.3 | 4xM4 dp. 6 | 10 | 7.75 | 12.5 | 4xM5 | 45 | 8 | 70 | 9.5 | 6.5 | 8xM4 dp. 5.5 | 2xM6 | 94 |
| 25 | 80 | 30 | 78 | 28 | 14 | 2xM6 | 60 | 35 | 6 | 12 | 12 | 30 | 4xØ11 dp. 6.3 | 4xM5 dp. 8 | 12 | 8.5 | 15 | 4xG1/8" | 46 | 9 | 72 | 13 | 9 | 8xM5 dp. 7.5 | 2xM8 | 96 |
| 32 | 98 | 38 | 96 | 36 | 18 | 2xM6 | 75 | 44 | 8 | 16 | 14 | 30 | 4xØ11 dp. 6.3 | 4xM5 dp. 8 | 16 | 9 | 19 | 4xG1/8" | 56 | 10 | 82 | 20 | 11.5 | 8xM5 dp. 7.5 | 2xM8 | 112 |

1) single side only