

AIR CYLINDER

Series A75, A76

Cat No A75, A76 - 01 - 01

Round Cylinders - Ø32, 40, 50 and 63 mm

Double Acting with Adjustable Cushioning

Features

- Available in magnetic and Non magnetic version
- Adjustable cushioning at both ends
- Threaded end cover - hence direct mounting on the machine is possible
- Miniature type - compact in size
- Piston rod made of Non corrosive stainless steel piston rod (SS303)



Applications

- Suitable for Packing and Packaging machines, Printing machines, Machine tools / SPMs, Food industries,
- Medical equipments, Textile machines, Leak testing equipment, Air gauging equipment and many more...

Technical Specifications

| | | | | |
|---------------------------|--|----|----|----|
| Bore dia (mm) | 32 | 40 | 50 | 63 |
| Cushion stroke (mm) | 12 | 15 | 15 | 15 |
| Standard strokes * (mm) | 25 40 50 80 100 125 160 200 250 300 320 400 500 | | | |
| Medium | Compressed air - filtered - lubricated | | | |
| Working pressure | 0.5 - 10 bar | | | |
| Ambient temperature | -10° to +60° C | | | |
| Medium temperature | +5° to +50° C | | | |
| Materials of construction | Cylinder barrel, Piston rod - SS, Aluminium, Brass, Nitrile, Polyurethane, Steel, Acetal, | | | |
| Mountings | Front foot mounting, Double foot mounting, Front trunnion, Rear trunnion | | | |
| Accessories | Clevis foot bracket (Rear end cover side), Clevis foot bracket (Suitable for Front and Rear side), Rod end fork, Rod end aligner, Rod end spherical eye, | | | |

* For Non standard or longer stroke cylinders, contact your regional dealer or **JANATICS**

Output force (force in N : 1N = 0.1 kgf)

| Cylinder bore Ø (in mm) | Rod Ø (in mm) | | Working pressure in bar | | | | | | | | |
|-------------------------|---------------|---------|-------------------------|-----|------|------|------|------|------|------|------|
| | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 32 | 12 | Extend | 145 | 217 | 289 | 362 | 434 | 507 | 579 | 651 | 724 |
| | | Retract | 124 | 187 | 249 | 311 | 373 | 435 | 498 | 559 | 622 |
| 40 | 16 | Extend | 226 | 339 | 452 | 565 | 678 | 792 | 905 | 1018 | 1130 |
| | | Retract | 190 | 285 | 380 | 475 | 570 | 665 | 760 | 855 | 950 |
| 50 | 20 | Extend | 353 | 530 | 707 | 883 | 1060 | 1237 | 1413 | 1590 | 1767 |
| | | Retract | 297 | 445 | 594 | 742 | 891 | 1039 | 1187 | 1336 | 1484 |
| 63 | 20 | Extend | 561 | 842 | 1122 | 1403 | 1683 | 1964 | 2244 | 2525 | 2805 |
| | | Retract | 505 | 757 | 1009 | 1261 | 1514 | 1766 | 2018 | 2270 | 2523 |

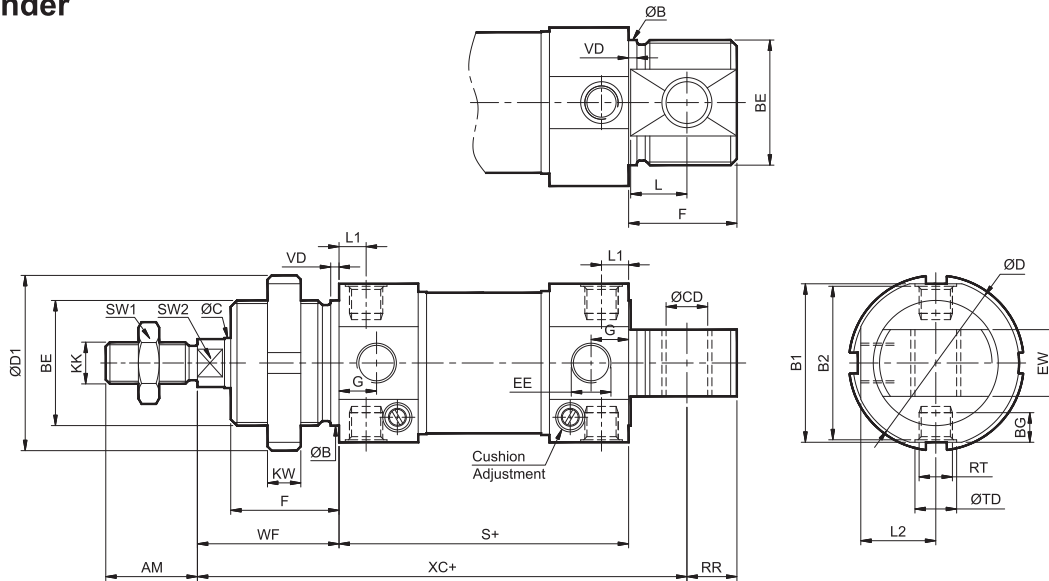
(Above values have been worked out taking frictional loss into consideration)

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Basic cylinder



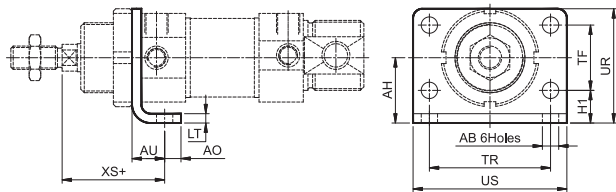
+ Add stroke

| Cylinder bore Ø | BE | F | ØCD E10 | L | RR | G | EE | L1 | VD | L2 | BG | TD H10 | B h9 | D1 | C | D | S | Tol | XC | Tol |
|-----------------|---------|----|---------|----|----|----|------|-----|----|------|-----|--------|------|----|----|----|------|-----|-------|-----|
| 32 | M30x1.5 | 26 | 10 | 13 | 12 | 9 | G1/8 | 6.5 | 2 | 18 | 6.5 | 10 | 30 | 42 | 12 | 40 | 69.5 | ±1 | 117.5 | ±1 |
| 40 | M38x1.5 | 30 | 12 | 15 | 14 | 12 | G1/4 | 10 | 3 | 22.5 | 8 | 12 | 38 | 50 | 16 | 49 | 84.5 | | 139.5 | |
| 50 | M45x1.5 | 33 | 16 | 16 | 16 | 12 | G1/4 | 9 | 3 | 27.5 | 10 | 14 | 45 | 60 | 20 | 59 | 86 | | 147 | |
| 63 | M45x1.5 | 33 | 16 | 16 | 16 | 13 | G3/8 | 9.5 | 3 | 35 | 15 | 16 | 45 | 60 | 20 | 73 | 94 | | 156.2 | |

| Cylinder bore Ø | WF | Tol | KW | EW d13 | B1 | B2 | SW1 | SW2 | KK | AM | RT | Stroke Tol |
|-----------------|----|------|----|--------|----|------|-----|-----|----------|----|---------|------------|
| 32 | 34 | ±1.3 | 8 | 16 | 38 | 36.8 | 17 | 10 | M10x1.25 | 22 | M8x1 | + 2 0 |
| 40 | 39 | | 10 | 18 | 46 | 44.8 | 19 | 13 | M12x1.25 | 24 | M10x1 | |
| 50 | 44 | | 10 | 21 | 57 | 55.8 | 24 | 17 | M16x1.5 | 32 | M12x1.5 | |
| 63 | 45 | ±1.5 | 10 | 21 | 70 | 67 | 24 | 17 | M16x1.5 | 32 | M14x1.5 | + 2.5 0 |

MOUNTINGS FOR AIR CYLINDER Series A75, A76

Front Foot Mounting

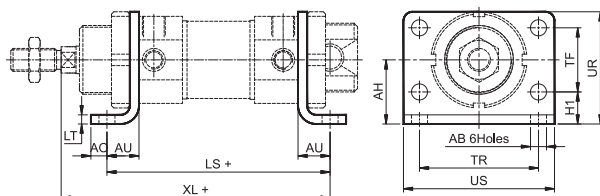


+ Add stroke

| Cylinder bore Ø | UR ±0.5 | AB H13 | TR ±0.2 | AH | Tol | AO | AU | LT | US | TF | H1 | XS | Tol | Ordering No |
|-----------------|---------|--------|---------|----|------|----|----|----|----|----|----|----|------|-------------|
| 32 | 49 | 7 | 52 | 28 | ±0.3 | 7 | 14 | 4 | 66 | 28 | 14 | 44 | ±1.6 | ML4032 |
| 40 | 58 | 9 | 60 | 33 | | 10 | 20 | 5 | 80 | 30 | 18 | 54 | | ML4040 |
| 50 | 70 | 9 | 70 | 40 | | 10 | 20 | 6 | 90 | 40 | 20 | 58 | | ML4050 |
| 63 | 80 | 9 | 76 | 45 | | 10 | 20 | 6 | 96 | 50 | 20 | 59 | | ±1.8 |

* Suitable for reaming

Double Foot Mounting



+ Add stroke

| Cylinder bore Ø | UR ±0.5 | AB H13 | TR ±0.2 | AH | Tol | AO | AU | LT | US | LS ±1.4 | XL ±1.5 | TF | H1 | Ordering No |
|-----------------|---------|--------|---------|----|------|----|----|----|----|---------|---------|----|----|-------------|
| 32 | 49 | 7 | 52 | 28 | ±0.3 | 7 | 14 | 4 | 66 | 97.5 | 117.5 | 28 | 14 | MS4032 |
| 40 | 58 | 9 | 60 | 33 | | 10 | 20 | 5 | 80 | 124.5 | 143.5 | 30 | 18 | MS4040 |
| 50 | 70 | 9 | 70 | 40 | | 10 | 20 | 6 | 90 | 126 | 150 | 40 | 20 | MS4050 |
| 63 | 80 | 9 | 76 | 45 | | 10 | 20 | 6 | 96 | 134 | 159 | 50 | 20 | MS4063 |

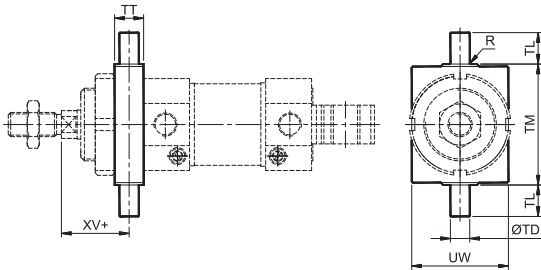
* Suitable for reaming

AIR CYLINDER

Series A75, A76

Cat No A75, A76 - 01 - 01

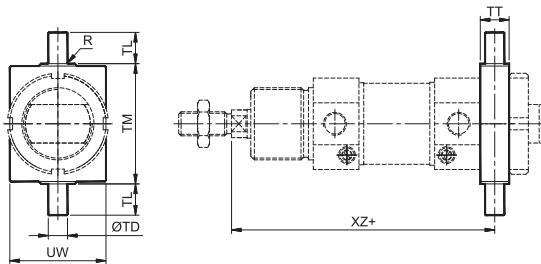
Front trunnion



+ Add stroke

| Cylinder bore Ø | TD f8 | TL h14 | TM h14 | UW | TT | R | XV | Tol | Ordering No |
|-----------------|-------|--------|--------|--------------------|----|-----|------|------|-------------|
| 32 | 8 | 13 | 50 | 40 ^{-0.5} | 12 | 0.5 | 28 | ±1.5 | MT030 |
| 40 | 10 | 16 | 60 | 50 | 15 | 0.5 | 31.5 | | MT038 |
| 50 | 12 | 18 | 80 | 65 | 20 | 1 | 34 | | MT045 |
| 63 | 12 | 18 | 80 | 65 | 20 | 1 | 35 | ±1.8 | MT045 |

Rear trunnion

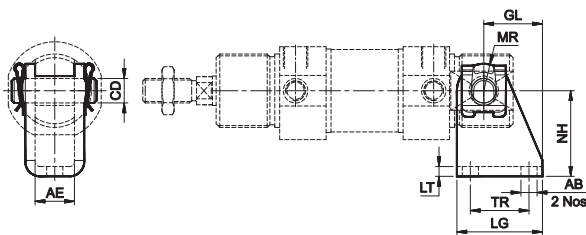


+ Add stroke

| Cylinder bore Ø | TD f8 | TL h14 | TM h14 | UW | TT | XZ ±1.5 | R | Ordering No |
|-----------------|-------|--------|--------|--------------------|----|---------|-----|-------------|
| 32 | 8 | 13 | 50 | 40 ^{-0.5} | 12 | 109.5 | 0.5 | MT030 |
| 40 | 10 | 16 | 60 | 50 | 15 | 131 | 0.5 | MT038 |
| 50 | 12 | 18 | 80 | 65 | 20 | 140 | 1 | MT045 |
| 63 | 12 | 18 | 80 | 65 | 20 | 149 | 1 | MT045 |

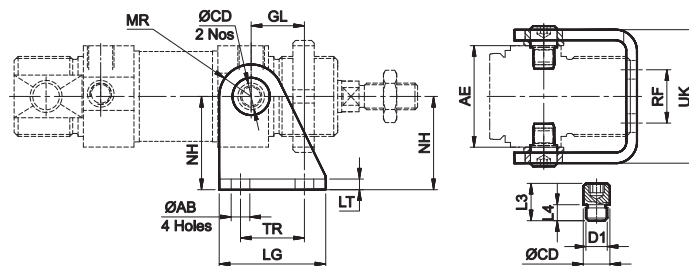
ACCESSORIES FOR AIR CYLINDER Series A75, A76

Clevis foot bracket (Suitable for Rear End Cover side)



| Cylinder bore Ø | AE H13 | AB H13 | LT | NH | ToI | MR | ØCD e8 | TR | ToI | GL | LG | Ordering no. |
|-----------------|--------|--------|----|----|--------------|----|--------|----|------|------|----|--------------|
| 32 | 16.1 | 6.6 | 4 | 35 | +0.4 -0.2 | 11 | 10 | 24 | ±0.2 | 18.5 | 35 | AA030 |
| 40 | 18.1 | 9 | 5 | 40 | | 13 | 12 | 30 | | 24.5 | 45 | AA038 |
| 50 & 63 | 21.1 | 9 | 6 | 45 | +0.5 -0.2 | 14 | 16 | 34 | | 28 | 50 | AA045 |

Clevis foot bracket (Suitable for Front & Rear End Cover sides)



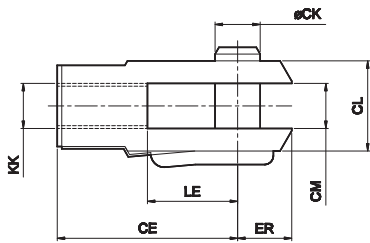
| Cylinder bore Ø | ØCD H8/f8 | AE | D1 | NH | GL | LT | ØAB H14 | L3 | L4 | ToI | MR | RF | ToI | TR | UK | LG | Ordering no. |
|-----------------|-----------|------|---------|----|----|----|---------|------|------|------|----|----|------|----|------|----|--------------|
| 32 | 10 | 38.1 | M8x1 | 35 | 20 | 4 | 7 | 14 | 6 | ±0.1 | 12 | 20 | ±0.2 | 24 | 50.1 | 40 | AD032 |
| 40 | 12 | 46.1 | M10x1 | 40 | 27 | 4 | 9 | 17 | 7.5 | | 13 | 28 | | 30 | 60.1 | 50 | AD040 |
| 50 | 14 | 57.1 | M12x1.5 | 45 | 30 | 6 | 9 | 20.5 | 9.5 | | 14 | 36 | | 34 | 74.1 | 54 | AD050 |
| 63 | 16 | 70.4 | M14x1.5 | 50 | 34 | 6 | 9 | 26.5 | 13.5 | | 15 | 42 | | 35 | 88.1 | 65 | AD063 |

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Series A75, A76

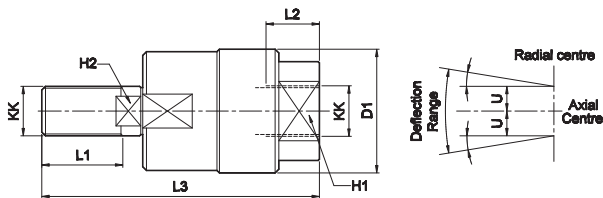
Cat No A75, A76 - 01 - 01

Rod end Fork (ISO 8140)



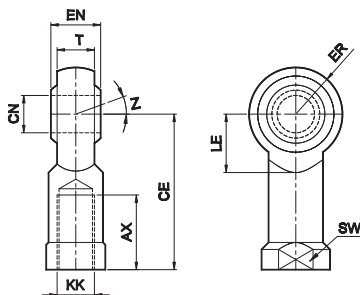
| Cylinder bore Ø | KK | CE | CK f 8 | CM B12 | LE | ER max | CL | Ordering no. |
|-----------------|------------|----|--------|--------|----|--------|----|--------------|
| 32 | M10 x 1.25 | 40 | 10 | 10 | 20 | 16 | 20 | AF010 |
| 40 | M12 x 1.25 | 48 | 12 | 12 | 24 | 19 | 24 | AF012 |
| 50 / 63 | M16 x 1.5 | 64 | 16 | 16 | 32 | 25 | 32 | AF016 |

Rod end Aligner



| Cylinder bore Ø | KK | L1 | L2 | L3 | H1 | H2 | D1 | U | ± θ° | Ordering no. |
|-----------------|------------|----|----|----|----|----|----|------|------|--------------|
| 32 | M10 x 1.25 | 20 | 14 | 65 | 17 | 8 | 28 | 0.75 | 5 | AR010 |
| 40 | M12 x 1.25 | 22 | 18 | 75 | 19 | 10 | 32 | 1 | 5 | AR012 |
| 50 / 63 | M16 x 1.5 | 25 | 22 | 91 | 27 | 13 | 41 | 1 | 5 | AR016 |

Rod end spherical eye (ISO 8139)



| Cylinder bore Ø | KK | CN H9 | T | EN h12 | CE | LE min | ER max | AX | SW | Z | Ordering no. |
|-----------------|------------|-------|------|--------|----|--------|--------|----|----|-----|--------------|
| 32 | M10 x 1.25 | 10 | 10.5 | 14 | 43 | 15 | 14 | 20 | 17 | 13° | AP010 |
| 40 | M12 x 1.25 | 12 | 12 | 16 | 50 | 17 | 16 | 22 | 19 | | AP012 |
| 50 / 63 | M16 x 1.5 | 16 | 15 | 21 | 64 | 22 | 21 | 28 | 22 | 15° | AP016 |

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Cat No A75, A76 - 01 - 01

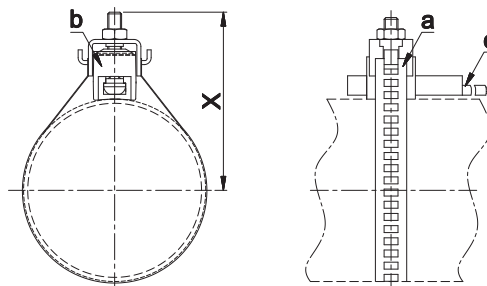
ACCESSORIES FOR MAGNETIC CYLINDERS Series A75

REED SWITCH



Function

The reed switch and clamping kit assembly is mounted on the Air cylinder (Series A75), for proximity sensing. The piston of the cylinder is equipped with a permanent magnet which activates the reed switch on approaching it. The reed switch closes the circuit giving an electrical signal, which could be used further as required. The accuracy of the sensing distance depends on the speed of operation of the piston.



| Cylinder bore Ø | Ordering no. for Clamp (a) | Ordering no. for Reed switch Adapter (b) | Ordering no. for Reed switch (c) | Ordering no. for (a+b+c) | X |
|-----------------|----------------------------|--|----------------------------------|--------------------------|----|
| 32 | 810013 | A1M01 | * | @ | 42 |
| 40 | 810014 | | | | 47 |
| 50 | 810016 | | | | 51 |
| 63 | 810017 | | | | 58 |

* For Reed switch refer **Series AM4 (Page no. 1a.1.1)**

How to order @

| AM70 | | 32 | 0 | FL-04 | |
|-----------------|-------|-------------|--|----------------|--|
| Cylinder bore Ø | | Switch type | | End connection | |
| 32 | - Ø32 | 0 | (Reed switch 2 wire type) | FL-04 | (Flying lead with 2 meter cable length) |
| 40 | - Ø40 | 1 | (Reed switch 3 wire type) | QD-02 | (Quick disconnecter with 300mm cable length) |
| 50 | - Ø50 | 2 | (Solid state type, Current sourcing - PNP) | | |
| 63 | - Ø63 | 3 | (Solid state type, Current sinking - NPN) | | |

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How to order

| A | | 76 | | 032 | | 100 | | D | |
|-------|-------------------|-------------|--------|-------------|-------|-----------|-----------------------|---|------------------------|
| Model | | Bore Ø (mm) | | Stroke (mm) | | Mountings | | | |
| 76 | Standard cylinder | 032 | - Ø 32 | 025 | - 25 | L | - Front foot mounting | D | - Double foot mounting |
| 75 | Magnetic cylinder | 040 | - Ø 40 | 040 | - 40 | M | - Front trunnion | N | - Rear trunnion |
| | | 050 | - Ø 50 | 050 | - 50 | | | | |
| | | 063 | - Ø 63 | 080 | - 80 | | | | |
| | | | | 100 | - 100 | | | | |
| | | | | 125 | - 125 | | | | |
| | | | | 160 | - 160 | | | | |
| | | | | 200 | - 200 | | | | |
| | | | | 250 | - 250 | | | | |
| | | | | 300 | - 300 | | | | |
| | | | | 320 | - 320 | | | | |
| | | | | 400 | - 400 | | | | |
| | | | | 500 | - 500 | | | | |

Example:

Ordering no. for standard cylinder with 32 dia bore, 100 mm stroke with Basic : **A76 032 100**

Ordering no. for standard cylinder with 32 dia bore, 100 mm stroke with Double foot mounting : **A76 032 100 D**



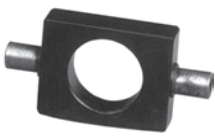
Note:

If ordered as 32 dia, 100 mm stroke cylinder, Basic cylinder **A76 032 100** will be supplied.

For repeat order when the details are taken from cylinder nameplate, mention the mounting style separately.

For ordering **Accessories**: mention part numbers in corresponding tables.

For ordering individual **Mounting** kits (If needed separately): mention the ordering numbers as below

| Cylinder bore Ø | Front Foot mounting | Double Foot mounting | Trunnion (Front or Rear) |
|-----------------|---|---|--|
| |  |  |  |
| 32 | ML4032 | MS4032 | MT030 |
| 40 | ML4040 | MS4040 | MT038 |
| 50 | ML4050 | MS4050 | MT045 |
| 63 | ML4063 | MS4063 | MT045 |

For your special requirements of cylinders or for further informations contact your regional dealer or **JANATICS**