

- > \varnothing 12 ... 100 mm
- > High performance, stability and reliability
- > Magnetic switches can be mounted flush with the profile
- > Cylinder mounting dimensions conform to ISO 15524 for bore size \varnothing 32 ~ 100



Technical features

Medium:

Compressed air, filtered, lubricated or non-lubricated

Standard:

ISO 15524

Operation:

Double acting, magnetic piston, mechanical cushion

Operating pressure:

0.5 ... 10 bar (7.25 ... 145 psi)

Ports:

M5, G1/8 ... G1/2

Cylinder diameters:

12, 16, 20, 25, 32, 40, 50, 63, 80, 100 mm

Standard strokes:

5, 10, 20, 25, 30, 35, 40, 45, 50, 75, 100 mm

Non-standard strokes:

Available (Max 300 mm)

Operating temperature:

-5 ... +70°C max.

Air supply must be dry enough

Standard Materials:

Barrel: Anodised aluminium

End covers: Anodised aluminium

Piston rod: Hard chromium plated

Piston rod seals: PUR

Piston seals: NBR

'O'-rings: NBR

Technical data

| Cylinder \varnothing (mm) | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| Profile barrel | • | • | • | • | • | • | • | • | • | • |
| Port size | M5 | M5 | M5 | M5 | G1/8 | G1/4 | G1/4 | G3/8 | G3/8 | G1/2 |
| Piston rod \varnothing (mm) | 6 | 8 | 10 | 12 | 16 | 16 | 20 | 20 | 25 | 32 |
| Theoretical thrusts at 6 bar outstroke (N) | 68 | 121 | 188 | 294 | 482 | 754 | 1178 | 1870 | 3016 | 4710 |
| Theoretical thrusts at 6 bar instroke (N) | 51 | 90 | 141 | 227 | 362 | 633 | 990 | 1680 | 2722 | 4228 |
| Air consumption at 6 bar outstroke (l/cm) | 0,008 | 0,014 | 0,022 | 0,035 | 0,056 | 0,088 | 0,137 | 0,218 | 0,35 | 0,55 |
| Air consumption at 6 bar instroke (l/cm) | 0,007 | 0,011 | 0,017 | 0,027 | 0,042 | 0,074 | 0,114 | 0,195 | 0,32 | 0,49 |

Standard strokes

| Cylinder \varnothing (mm) | Stroke length (mm) | | | | | | | | | | | |
|-----------------------------|--------------------|----|----|----|----|----|----|----|----|----|----|-----|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 75 | 100 |
| 12 | • | • | • | • | • | • | – | – | – | – | – | – |
| 16 | • | • | • | • | • | • | – | – | – | – | – | – |
| 20 | • | • | • | • | • | • | • | • | • | • | – | – |
| 25 | • | • | • | • | • | • | • | • | • | • | – | – |
| 32 | • | • | • | • | • | • | • | • | • | • | • | • |
| 40 | • | • | • | • | • | • | • | • | • | • | • | • |
| 50 | – | • | • | • | • | • | • | • | • | • | • | • |
| 63 | – | • | • | • | • | • | • | • | • | • | • | • |
| 80 | – | • | • | • | • | • | • | • | • | • | • | • |
| 100 | – | • | • | • | • | • | • | • | • | • | • | • |

Option selector

CM/712***/***/***

| Option | Substitute |
|----------------------------|-------------------|
| Piston rod material | Substitute |
| Hard Chromium plated | C |
| Standard | Substitute |
| ISO15524, G thread | M |
| ISO15524, NPT thread | C |
| Action | Substitute |
| Single acting, sprung in | 1 |
| Double acting | 2 |
| Single acting, sprung out | 3 |

| Option | Substitute |
|---------------------------|-------------------|
| Stroke length (mm) | Substitute |
| 5...300 | |
| Fixing type | Substitute |
| Thread on barrel | A |
| Through hole on barrel | B |
| Piston rod thread | Substitute |
| Male thread | M |
| Female thread | MX |
| Bore size (mm) | Substitute |
| 12 | 012 |
| 16 | 016 |
| 20 | 020 |
| 25 | 025 |
| 32 | 032 |
| 40 | 040 |
| 50 | 050 |
| 63 | 063 |
| 80 | 080 |
| 100 | 100 |

Service kits



| ø | Part Number |
|-----|--------------|
| 12 | QM/712012/00 |
| 16 | QM/712016/00 |
| 20 | QM/712020/00 |
| 25 | QM/712025/00 |
| 32 | QM/712032/00 |
| 40 | QM/712040/00 |
| 50 | QM/712050/00 |
| 63 | QM/712063/00 |
| 80 | QM/712080/00 |
| 100 | QM/712100/00 |

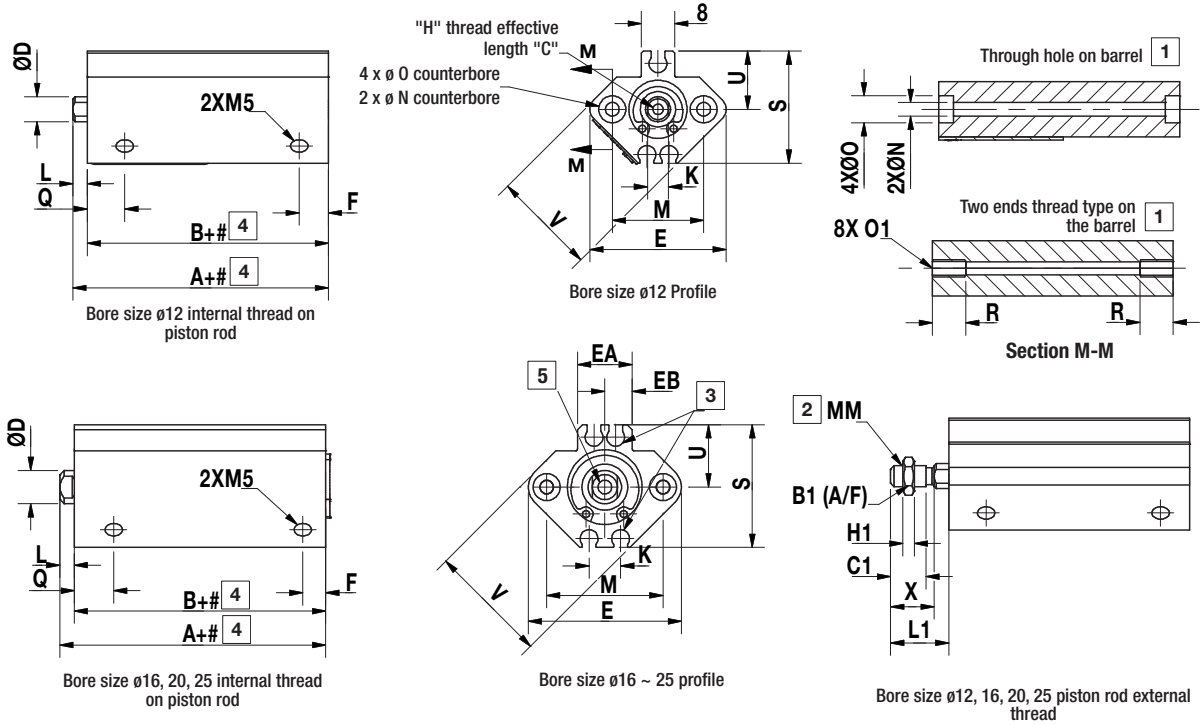
Dimensions

Dimensions in mm
Projection/First angle



CM/712000/M, CM/712000/MX

Bore size ϕ 12~25



- 1 Two options for the fixing type on the barrel
- 2 Two options for the piston rod thread
- 3 Magnetic switch can be mounted flush with the profile
- 4 # Stroke: Bore size 12 to 16, Max 50 mm
Bore size 20 to 32, Max 100 mm
Bore size 40 to 100, Max 300 mm

| Bore size | Stroke | A | B | B1 | C | C1 | D | E | EA | EB | F | H | H1 | K |
|-----------|--------|------|------|----|----|----|----|----|------|-----|-----|----------|----|----|
| 12 | 5~30 | 31.5 | 28 | 8 | 6 | 9 | 6 | 33 | - | - | 7 | M3 x 0.5 | 4 | 5 |
| 16 | 5~30 | 34 | 30.5 | 10 | 8 | 10 | 8 | 37 | 13.2 | 6.6 | 5.5 | M4 x 0.7 | 5 | 6 |
| 20 | 5~50 | 36 | 31.5 | 13 | 7 | 12 | 10 | 47 | 13.6 | 6.8 | 5.5 | M5 x 0.8 | 5 | 8 |
| 25 | 5~50 | 37.5 | 32.5 | 17 | 12 | 15 | 12 | 52 | 13.6 | 6.8 | 5.5 | M6 x 1 | 6 | 10 |

| Bore size | Stroke | L | L1 | M | MM | N | O | O1 | Q | R | S | U | V | X |
|-----------|--------|-----|------|----|------------|-----|---------------|----------|-----|----|------|----|----|------|
| 12 | 5~30 | 3.5 | 14 | 22 | M5 x 0.8 | 3.5 | 6.5 depth 3.5 | M4 x 0.7 | 9 | 7 | 27.5 | 14 | 25 | 10.5 |
| 16 | 5~30 | 3.5 | 15.5 | 28 | M6 x 1 | 3.5 | 6.5 depth 3.5 | M4 x 0.7 | 9.5 | 7 | 29.5 | 15 | 29 | 12 |
| 20 | 5~50 | 4.5 | 18.5 | 36 | M8 x 1.25 | 5.5 | 9 depth 7 | M6 x 1 | 8 | 10 | 35.5 | 18 | 36 | 14 |
| 25 | 5~50 | 5 | 22.5 | 40 | M10 x 1.25 | 5.5 | 9 depth 7 | M6 x 1 | 9 | 10 | 40.5 | 21 | 40 | 17.5 |

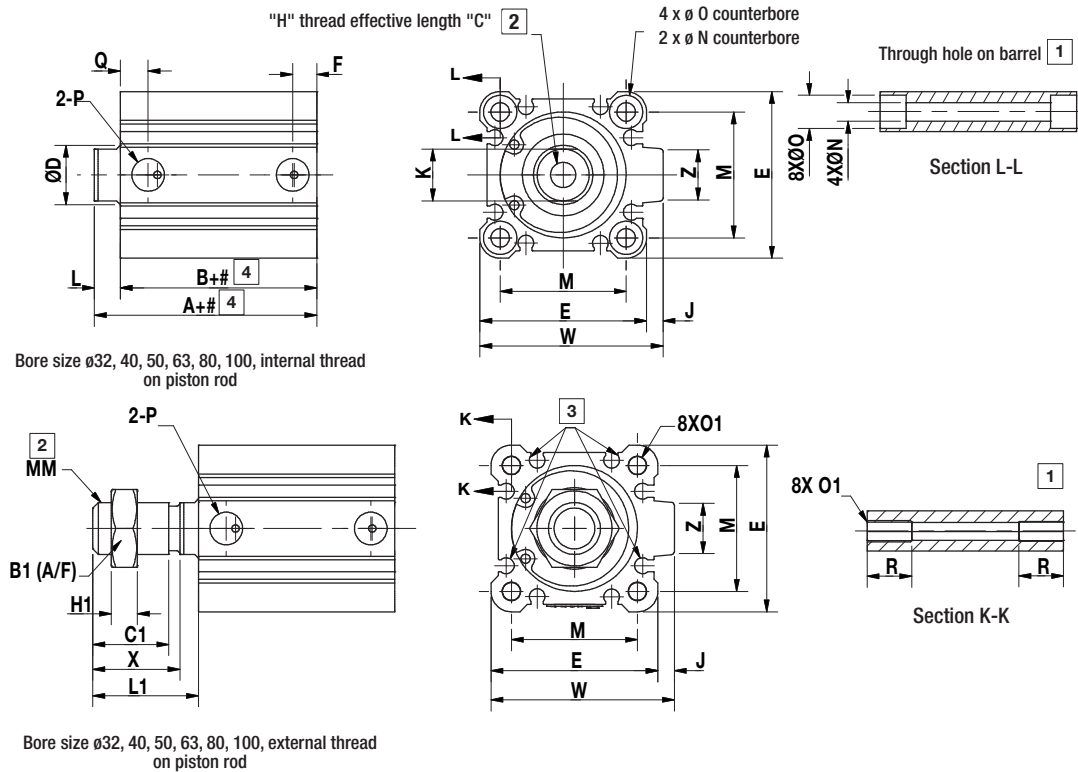
Dimensions

Dimensions in mm
Projection/First angle



CM/712000/M, CM/712000/MX

Bore size \varnothing 32~100



- [1] Two options for the fixing type on the barrel
- [2] Two options for the piston rod thread
- [3] Magnetic switch can be mounted flush with the profile
- [4] # Stroke: Bore size 12 to 16, Max 50 mm
Bore size 20 to 32, Max 100 mm
Bore size 40 to 100, Max 300 mm

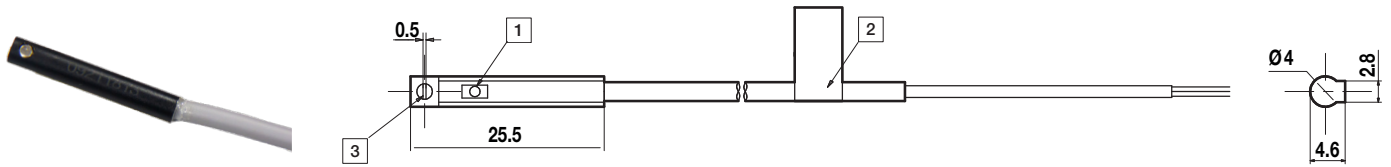
| Bore size | Stroke | A | B | B1 | C | C1 | D | E | F | H | H1 | J | K | L |
|-----------|--------|------|------|----|----|------|----|-----|------|-----------|----|-----|----|----|
| 32 | 5~100 | 40 | 33 | 22 | 13 | 20.5 | 16 | 45 | 7.5 | M8 x 1.25 | 8 | 4.5 | 14 | 7 |
| 40 | 5~100 | 46.5 | 39.5 | 22 | 13 | 20.5 | 16 | 52 | 7.5 | M8 x 1.25 | 8 | 5 | 14 | 7 |
| 50 | 5~100 | 48.5 | 40.5 | 27 | 15 | 26 | 20 | 64 | 10.5 | M10 x 1.5 | 11 | 7 | 17 | 8 |
| 63 | 5~100 | 54 | 46 | 27 | 15 | 26 | 20 | 77 | 10.5 | M10 x 1.5 | 11 | 7 | 17 | 8 |
| 80 | 5~100 | 63.5 | 53.5 | 32 | 21 | 32.5 | 25 | 98 | 12.5 | M16 x 2 | 13 | 6 | 22 | 10 |
| 100 | 5~100 | 75 | 63 | 41 | 27 | 32.5 | 32 | 117 | 13 | M20 x 2.5 | 13 | 6.5 | 27 | 12 |

| Bore size | Stroke | L1 | M | MM | N | O | O1 | P | Q | R | W | X | Z |
|-----------|--------|------|----|-----------|-----|-----------------|------------|------|------|----|-------|------|----|
| 32 | 5~100 | 28.5 | 34 | M14 x 1.5 | 5.5 | 9 depth 7 | M6 x 1 | G1/8 | 10 | 10 | 49.5 | 23.5 | 14 |
| 40 | 5~100 | 28.5 | 40 | M14 x 1.5 | 5.5 | 9 depth 7 | M6 x 1 | G1/8 | 12.5 | 10 | 57 | 23.5 | 15 |
| 50 | 5~100 | 33.5 | 50 | M18 x 1.5 | 6.6 | 11 depth 8 | M8 x 12.5 | G1/4 | 10.5 | 14 | 71 | 28.5 | 19 |
| 63 | 5~100 | 33.5 | 60 | M18 x 1.5 | 9 | 14 depth 10.5 | M10 x 1.5 | G1/4 | 15 | 18 | 84 | 28.5 | 19 |
| 80 | 5~100 | 43.5 | 77 | M22 x 1.5 | 11 | 17.5 depth 13.5 | M12 x 1.75 | G3/8 | 16 | 22 | 104 | 35.5 | 25 |
| 100 | 5~100 | 43.5 | 94 | M26 x 1.5 | 11 | 17.5 depth 13.5 | M12 x 1.75 | G3/8 | 23 | 22 | 123.5 | 35.5 | 25 |

Dimensions

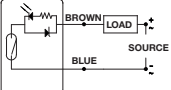
 Dimensions in mm
Projection/First angle


Magnetic Switch



- 1 Light
- 2 Label
- 3 Fixing screw M2.5

Technical data – Magnetic Switch

| Symbol | Voltage (V d.c./ V a.c.) | Current maximum (mA) | Max Power (W) | Function | Operating temperature (°C) | LED | Protection class | Cable length (m) | Cable type | Weight (g) | Model |
|--|--------------------------------|----------------------------|---------------------|----------|----------------------------------|-----|---------------------|---------------------|-------------|---------------|-------------|
|  | 5 ... 240 | 100 | 10 | SPST | -10 ... +70 | • | IP 67 | 1 | PVC 2 x 0,5 | 30 | M/71/LSU/1V |

*Please contact our technical service for other cable length options

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »**Technical features/data**«. Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI Precision Engineering, Norgren Ltd.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.