



CLAMPING AND BRAKING ELEMENTS FOR LINEAR GUIDES AND RODS

PNEUMATIC AND MANUAL UNITS

2022/2023



 **ERRE DI**

ERRE.DI. Automation has been manufacturing and supplying quality automation components and systems for over 20 years.

Within its own facilities, ERRE.DI. is able to design, produce and test an extensive range of clamping and braking elements for linear guides and rods.

Through its new automation line, ERRE.DI. can easily meet the market requirements for quality and safety, responding to every technical and design problem thanks to the expertise of its engineering department.

In addition to the standard production, ERRE.DI. provides tailor-made solutions to best meet the customers' needs.

High technology production, reliability of components and technical support make ERRE.DI. the ideal partner for every industrial sector, including aerospace, robotics, machine tool, automotive, industrial automation, packaging and material handling.

CLAMPING AND BRAKING ELEMENTS FOR LINEAR GUIDES AND RODS

Pneumatic and Manual Units

Following an adequate period of design, analysis, development and testing, ERRE.DI. is able to offer clamping and braking elements for linear guides and rods with the following characteristics:

- High clamping force with minimum space required
- Easy installation
- Both elements working in single or double effect need the same installation space
- The "Normally Closed" devices can be used as safety elements (clamping without air pressure)
- High switching speed Open/Closed
- Italian technology

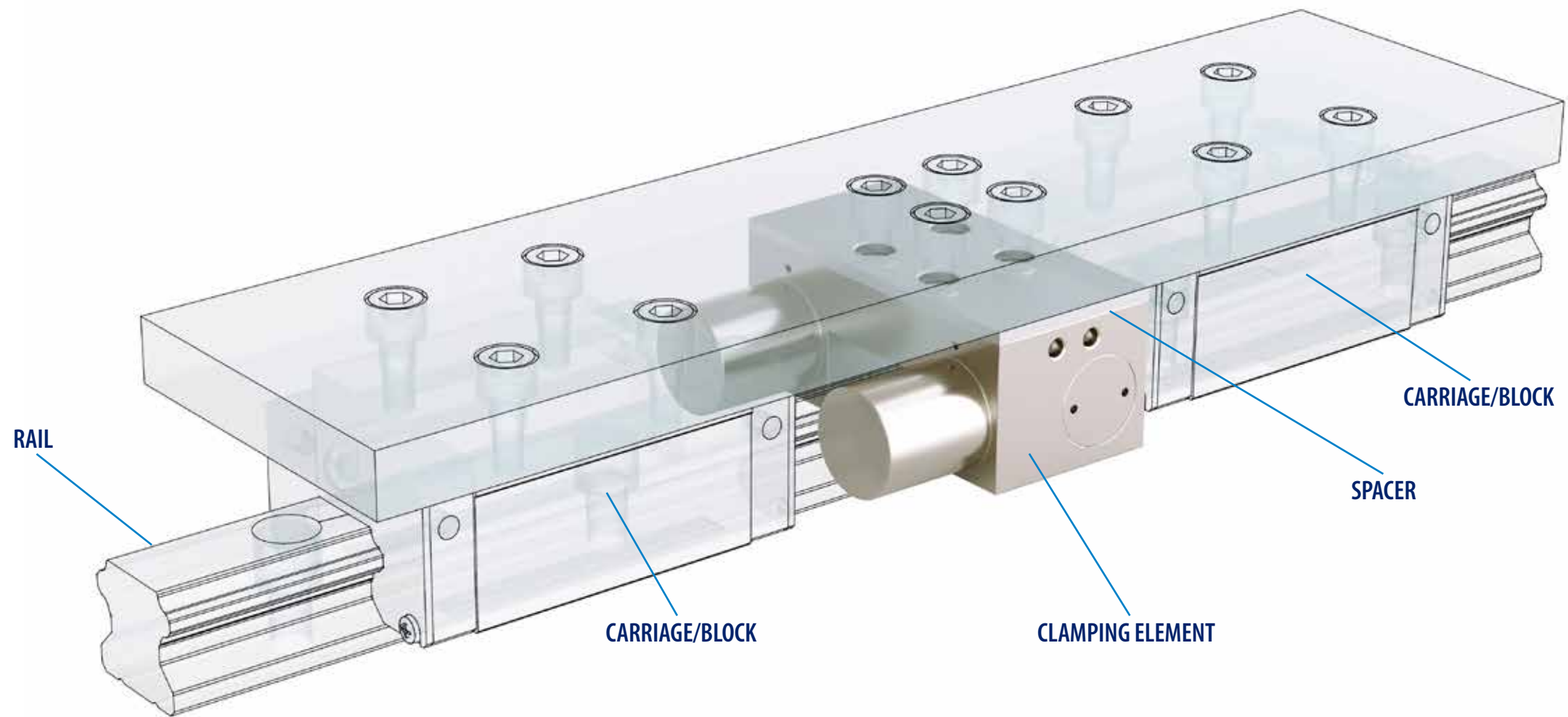
All the clamping and braking elements undergo galvanic treatments to protect against corrosion: hard anodizing for aluminum elements and electrolytic nickel plating bath for steel elements.

The clamping elements (M or D Operating Type) satisfy all the essential requirements of safety of the Directive 2006/42/EC. Harmonised standard applied: EN ISO 13849.

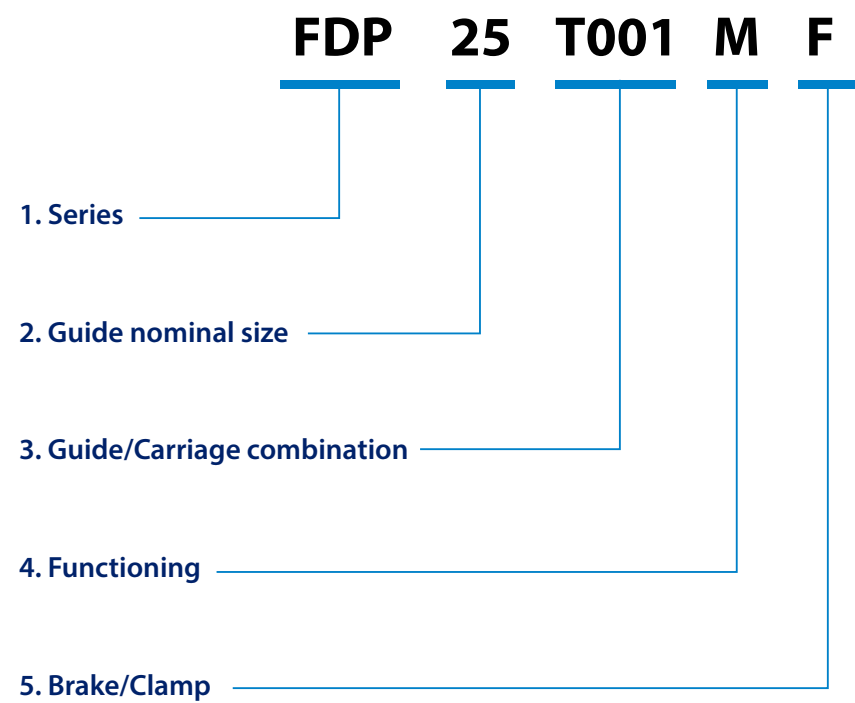
FIELDS OF APPLICATION:

- Woodworking machine
- Metal working machine
- Glass working machine
- Packaging machinery
- Automation and Robotics
- Handling systems



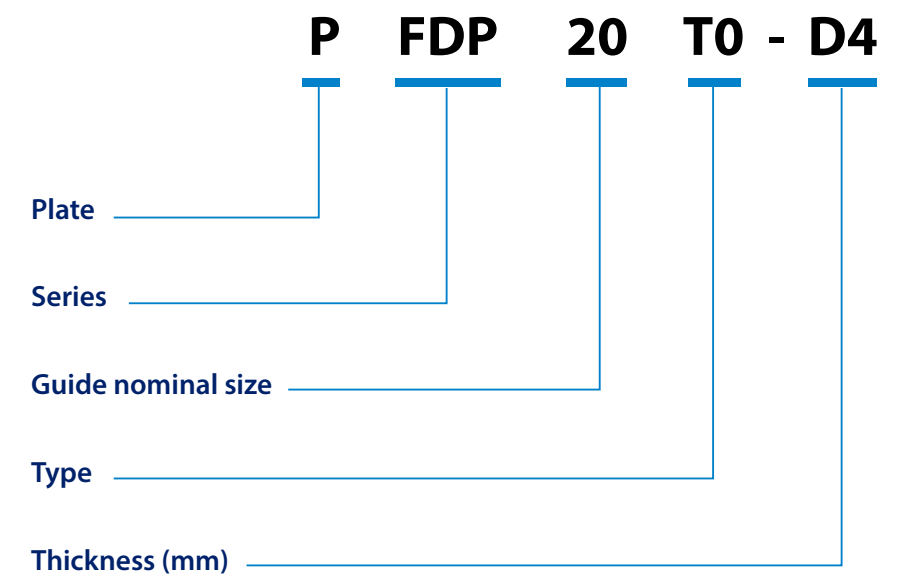


Codes for clamping and braking elements are composed as follows:



Clamping and braking elements can optionally be supplied with a "spacer" plate made in Steel, used to align the height of the element with the height of the sliding guides.

Codes for the spacer are composed as follows:



1.

Series codes are the following:

| | | |
|-------------|-------------|--------------|
| F | FDI | FBS |
| FC | FMC | FBC |
| FDP | FMCE | FMN-M |
| FDPH | FMN | |
| FDPM | FCMN | |

2.

Nominal guide size indicates the size of the guide rail on which the element is mounted. It is also the size of the element.

3.

The Guide/Carriage combination identifies the clamping element associated with the guide/carriage

4.

The code of the Pneumatic functioning type parameter is the following:



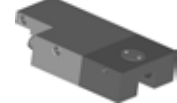
| | |
|----------|--|
| S | Normally open – Air to close |
| M | Normally closed – Air to open |
| E | Normally open – Air to close and to open |
| D | Normally closed – Air to open and to close |

5.




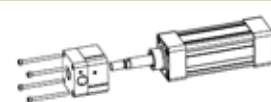
The Working type parameter defines the clamping element:

| | |
|----------|---|
| F | Dynamic braking element (otherwise it is clamping). |
| S | Whit sensor integration of a proximity sensor in order to verify the opening status of the element. The sensor is an inductive sensor in cylindrical stainless steel housing M8 (PNP or NPN). It comes with a connector and a cable. Working temperature: -25°C ÷ +75°C. |
| P | Element working with pressure less than 6 bar, but more than 4.5 bar |
| Q | Element working with pressure from 4.5 bar to 4 bar |
| R | Element working with pressure less than 4 bar |

ELEMENTS FOR LINEAR GUIDES

| | SERIES | CHARACTERISTICS | FUNCTIONING | NORMALLY CLOSED | BRAKING | SENSOR | PAG. |
|---|--------------|--|-------------|-----------------|---------|--------|------|
|  | F | STANDARD CLAMPING ELEMENT GREAT HOLDING FORCE/DIMENSION RATIO | PNEUMATIC | YES | YES | YES | 10 |
|  | FDP | DOUBLE PISTON SYSTEM. HIGH HOLDING FORCE SMALL DIMENSIONS | PNEUMATIC | YES | YES | YES | 12 |
|  | FDPH | POWERED DOUBLE PISTON SYSTEM EXTREMELY HIGH HOLDING FORCE SMALL DIMENSIONS | PNEUMATIC | YES | YES | YES | 14 |
|  | FDPM | CLAMPING AND BRAKING ELEMENT HIGH CLAMPING FORCE SHAPED PROFILE | PNEUMATIC | YES | YES | YES | 16 |
|  | FDI | CLAMPING AND BRAKING ELEMENT WITH INTEGRATED SPRINGS FURTHER INCREASE OF CLAMPING FORCE COMPARED TO FDPM | PNEUMATIC | YES | YES | YES | 18 |
|  | FMC | MONOCYLINDER CLAMPING AND BRAKING ELEMEN. HIGH CLAMPING FORCE. SHAPED PROFILE | PNEUMATIC | YES | YES | YES | 20 |
|  | FMCE | ELECTRIC CLAMPING ELEMENT | ELECTRIC | YES | NO | YES | 22 |
|  | FMN | MANUAL ELEMENT PRACTICAL AND RELIABLE NEW ERGONOMIC DESIGN | MANUAL | NO | NO | NO | 24 |
|  | FMN-M | MANUAL ELEMENT FOR MINIATURE GUIDE PRACTICAL AND RELIABLE NEW ERGONOMIC DESIGN | MANUAL | NO | NO | NO | 26 |

ELEMENTS FOR ROUND GUIDES AND RODS

| | | | | | | | |
|---|-------------|--|-----------|-----|-----|-----|----|
|  | FC | SAME HIGH PERFORMANCES AS F SERIES FOR ROUND GUIDES | PNEUMATIC | YES | YES | YES | 28 |
|  | FCMN | MANUAL ELEMENT FOR ROUND GUIDES PRACTICAL AND RELIABLE NEW ERGONOMIC DESIGN | MANUAL | NO | NO | NO | 30 |
|  | FBS | DOUBLE PISTON SYSTEM HIGH HOLDING FORCE FOR ROUND GUIDES | PNEUMATIC | YES | YES | YES | 32 |
|  | FBC | CYLINDER BLOCKING ELEMENT HIGH HOLDING FORCE FOR LINEAR GUIDES AND RODS OF PNEUMATIC CYLINDERS | PNEUMATIC | YES | YES | YES | 34 |

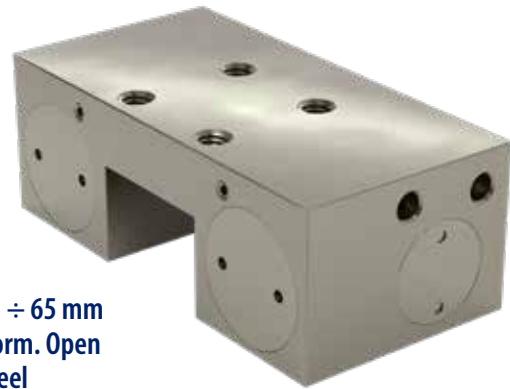
SPECIAL ELEMENTS

| | | | | | | | |
|---|-------------|---|-----------|-----|-----|-----|----|
|  | FMV | CLAMPING SYSTEM WITH ONLY ONE CONTACT ELEMENT SMALL DIMENSIONS DIFFERENT MODES OF USE | PNEUMATIC | YES | YES | YES | 36 |
|  | F_SP | EASY TO ASSEMBLE THANKS TO THE DECOMPOSABLE SYSTEM INDEPENDENT PISTON SYSTEM SHAPED PROFILE | PNEUMATIC | YES | NO | NO | 38 |

F Series - Pneumatic clamping element

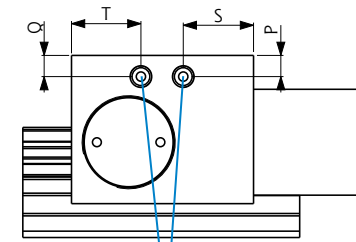
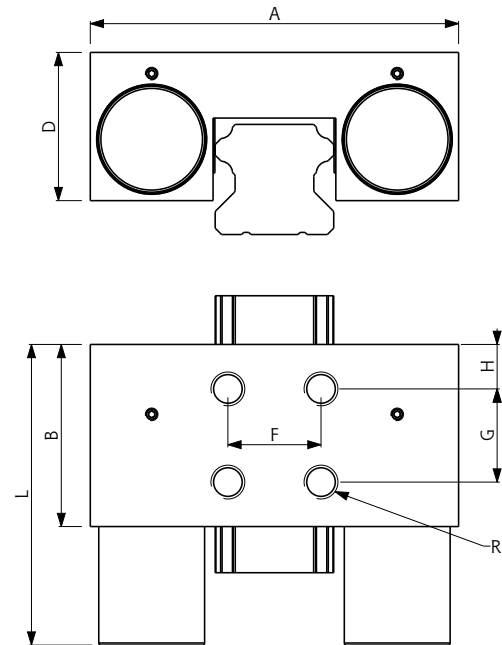
The tightening is done using an amplification system with inclined plane.
Made in construction steel, for high axial and horizontal stiffness.

F##--- S
F##--- E



Guide size **15 ÷ 65 mm**
Working type **Norm. Open**
Body **Steel**
Operating Temperature **20°C ÷ +80°C**
Operating Pressure **5,5 ÷ 8 bar**
Switching time **40 ÷ 60 mSec**
Contact parts Hardness **60 ÷ 62 HRC**

- ◆ Small dimensions.
- ◆ High clamping force.
- ◆ Precise positioning
- ◆ High stiffness



M5 AIR CONNECTION
we recommend
the use of compressed
air hose $\varnothing 6 \times 4$

F##--- M
F##--- D



Guide size **15 ÷ 65 mm**
Working type **Norm. Closed**
Body **Steel**
Operating Temperature **20°C ÷ +80°C**
Operating Pressure **5,5 ÷ 8 bar**
Switching time **40 ÷ 60 mSec**
Contact parts Hardness **60 ÷ 62 HRC**

- ◆ Clamping element without the use of energy.
- ◆ Includes springs for closing, while the pressure is for opening

| Type | Size | Clamping Force [N] | | | | A [mm] | B [mm] | D [mm] | F [mm] | G [mm] | H [mm] | L [mm] | P [mm] | Q [mm] | R | S [mm] | T [mm] |
|------|-------|--------------------|------|------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | M | S | E | D | | | | | | | | | | | | |
| F | 15 S0 | 400 | 650 | 650 | 1050 | 57 | 43 | 21 | 15 | 15 | 12.5 | 62 | 5 | 15 | M4x5 | 37 | 6 |
| F | 15 S5 | 400 | 650 | 650 | 1050 | 55 | 39 | 20.8 | 15 | 15 | 8.5 | 58 | 5.4 | 16.3 | M4x5 | 37 | 4.5 |
| F | 15 T0 | 400 | 650 | 650 | 1050 | 60 | 43 | 21.5 | 15 | 15 | 12.5 | 62 | 5.5 | 15.5 | M4x5 | 37 | 6 |
| F | 15 T5 | 400 | 650 | 650 | 1050 | 55 | 39 | 21.5 | 15 | 15 | 8.5 | 58 | 5.5 | 17 | M4x5 | 37 | 4.5 |
| F | 20 S0 | 600 | 1000 | 1000 | 1600 | 68 | 39 | 27 | 20 | 20 | 14 | 61 | 5 | 7 | M5x5 | 16.9 | 5.5 |
| F | 20 S5 | 600 | 1000 | 1000 | 1600 | 64.1 | 39 | 27 | 20 | 20 | 10 | 61 | 5 | 6.5 | M5x5 | 16.9 | 5 |
| F | 20 T0 | 600 | 1000 | 1000 | 1600 | 70 | 39 | 25.5 | 20 | 20 | 14 | 61 | 5 | 5 | M5x5 | 18.5 | 5 |
| F | 20 T5 | 600 | 1000 | 1000 | 1600 | 66 | 39 | 25.5 | 20 | 20 | 14 | 61 | 5 | 5 | M5x5 | 18.5 | 5 |
| F | 25 S0 | 750 | 1200 | 1200 | 1950 | 75 | 39 | 32.5 | 20 | 20 | 14 | 63.5 | 6.6 | 9.5 | M6x8 | 19.5 | 5.5 |
| F | 25 S5 | 750 | 1200 | 1200 | 1950 | 75 | 35 | 32.5 | 20 | 20 | 10 | 56 | 6.6 | 9.5 | M6x8 | 19.5 | 5 |
| F | 25 T0 | 750 | 1200 | 1200 | 1950 | 77 | 39 | 28 | 20 | 20 | 14 | 63.5 | 5 | 6 | M6x8 | 19 | 5.5 |
| F | 25 T5 | 750 | 1200 | 1200 | 1950 | 75 | 35 | 28 | 20 | 20 | 10 | 56 | 5 | 6 | M6x8 | 19 | 5 |
| F | 30 S0 | 1050 | 1750 | 1750 | 2800 | 87 | 43 | 38.5 | 22 | 22 | 10.5 | 71 | 8.5 | 8.5 | M8x8 | 16.5 | 16.5 |
| F | 30 S5 | 1050 | 1750 | 1750 | 2800 | 90 | 39 | 38.5 | 22 | 22 | 8.5 | 68 | 8.5 | 8.5 | M8x8 | 16.5 | 14.5 |
| F | 30 T0 | 1050 | 1750 | 1750 | 2800 | 87 | 43 | 35 | 22 | 22 | 10.5 | 71 | 5 | 5 | M8x8 | 16.5 | 16.5 |
| F | 30 T5 | 1050 | 1750 | 1750 | 2800 | 90 | 39 | 35 | 22 | 22 | 8.5 | 68 | 5 | 5 | M8x8 | 16.5 | 14.5 |
| F | 35 S0 | 1250 | 2000 | 2000 | 3250 | 106 | 46 | 42.5 | 24 | 24 | 7.5 | 78 | 5.5 | 11 | M8x15 | 23 | 7 |
| F | 35 S5 | 1250 | 2000 | 2000 | 3250 | 100 | 39 | 42 | 24 | 24 | 7.5 | 59 | 10.5 | 12.5 | M8x15 | 23 | 4.5 |
| F | 35 T0 | 1250 | 2000 | 2000 | 3250 | 106 | 46 | 42.5 | 24 | 24 | 7.5 | 78 | 12 | 11 | M8x15 | 23 | 7 |
| F | 35 T5 | 1250 | 2000 | 2000 | 3250 | 100 | 39 | 36.5 | 24 | 24 | 7.5 | 59 | 5 | 7 | M8x15 | 23 | 4.5 |
| F | 45 S0 | 1500 | 2300 | 2300 | 3800 | 116 | 50 | 52 | 26 | 26 | 12 | 82 | 15 | 8 | M10x19 | 20.5 | 21 |
| F | 45 T0 | 1500 | 2300 | 2300 | 3800 | 120 | 50 | 52 | 26 | 26 | 12 | 82 | 15 | 8 | M10x19 | 20 | 20 |
| F | 45 T5 | 1500 | 2300 | 2300 | 3800 | 120 | 49 | 43.5 | 26 | 26 | 11.5 | 81 | 6.5 | 6.5 | M10x18 | 20 | 20 |
| F | 55 S0 | 2000 | 3000 | 3000 | 5000 | 128 | 49 | 59 | 30 | 30 | 9.5 | 82 | 17 | 10 | M10x19 | 18.5 | 18.5 |
| F | 55 S5 | 2000 | 3000 | 3000 | 5000 | 128 | 49 | 53 | 30 | 30 | 9.5 | 81 | 16 | 9 | M10x19 | 18.5 | 20 |
| F | 55 T0 | 2000 | 3000 | 3000 | 5000 | 136 | 49 | 54 | 30 | 30 | 9.5 | 82 | 13 | 8 | M10x19 | 18.5 | 18.5 |
| F | 65 T0 | 2000 | 3000 | 3000 | 5000 | 146 | 49 | 67 | 50 | 30 | 9.5 | 82 | 26 | 21 | M10x20 | 18.5 | 18.5 |

FDP Series - Double piston element

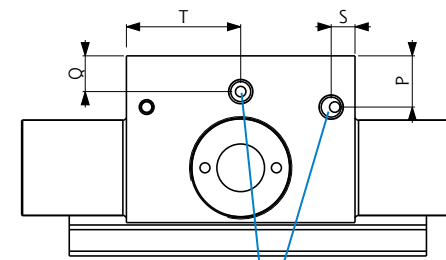
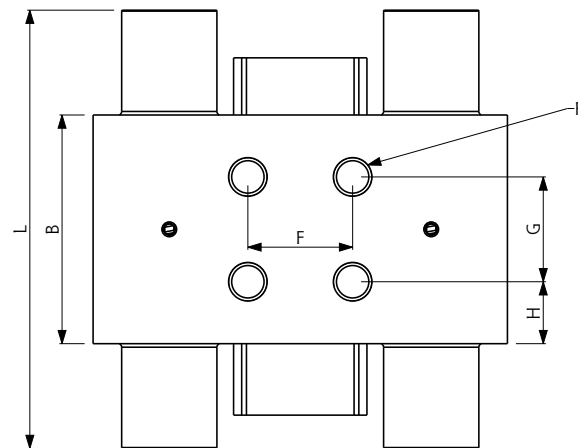
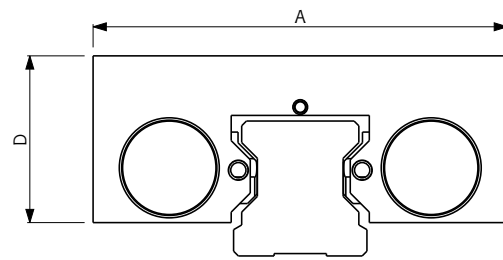
New line created to achieve a high clamping force in small spaces.
Dual Locking Action made by a pair of pistons for each tightening part.

FDP#--- S
FDP#--- E



Guide size **20 ÷ 45 mm**
Working type **Norm. Open**
Body **Steel**
Operating Temperature **-20°C ÷ +80°C**
Operating Pressure **5,5 ÷ 8 bar**
Switching time **40 ÷ 60 mSec**
Contact parts Hardness **60 ÷ 62 HRC**

- ◆ Double piston system: high clamping force.
- ◆ Small size.
- ◆ Short reaction time.



**M5
AIR CONNECTION**
we recommend
the use of compressed
air hose \varnothing 6x4

FDP#--- M
FDP#--- D



Guide size **20 ÷ 45 mm**
Working type **Norm. Closed**
Body **Steel**
Operating Temperature **-20°C ÷ +80°C**
Operating Pressure **5,5 ÷ 8 bar**
Switching time **40 ÷ 60 mSec**
Contact parts Hardness **60 ÷ 62 HRC**

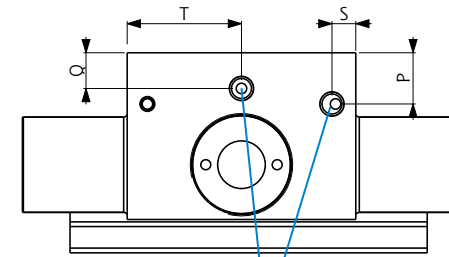
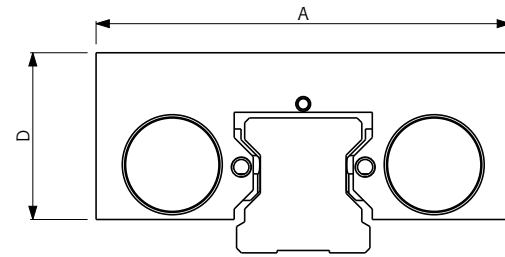
- ◆ Clamping element without the use of energy.
- ◆ High clamping force thanks to the double piston system
- ◆ Small size.
- ◆ Short reaction time.

| Type | Size | Clamping Force [N] | | | | A [mm] | B [mm] | D [mm] | F [mm] | G [mm] | H [mm] | L [mm] | P [mm] | Q [mm] | R | S [mm] | T [mm] |
|------|------|--------------------|------|------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | M | S | E | D | | | | | | | | | | | | |
| FDP | 20 S | 800 | 1300 | 1300 | 2100 | 70 | 51 | 27 | 20 | 27 | 12 | 89 | 7.5 | 5 | M5x6 | 15 | 10 |
| FDP | 20 T | 800 | 1300 | 1300 | 2100 | 73 | 51 | 25.5 | 20 | 27 | 12 | 89 | 5.5 | 5 | M5x6 | 15 | 10 |
| FDP | 25 S | 1200 | 2000 | 2000 | 3200 | 74 | 51 | 32.5 | 20 | 20 | 15.5 | 95 | 5.25 | 8.75 | M6x7 | 25.5 | 5.5 |
| FDP | 25 T | 1200 | 2000 | 2000 | 3200 | 78 | 51 | 30.5 | 20 | 20 | 15.5 | 95 | 5 | 6.5 | M6x7 | 30.5 | 5.5 |
| FDP | 30 S | 1200 | 2000 | 2000 | 3200 | 87 | 48 | 35 | 22 | 22 | 13 | 92 | 7.5 | 11 | M8x10 | 24 | 5 |
| FDP | 30 T | 1200 | 2000 | 2000 | 3200 | 89 | 48 | 33 | 22 | 22 | 13 | 92 | 6 | 9.5 | M8x10 | 19.5 | 6 |
| FDP | 35 S | 1500 | 2200 | 2200 | 3700 | 94 | 49 | 44 | 24 | 24 | 12.5 | 98 | 13 | 10 | M8x15 | 14 | 19.5 |
| FDP | 35 T | 1500 | 2200 | 2200 | 3700 | 100 | 49 | 36.5 | 24 | 24 | 12.5 | 98 | 7.5 | 5.25 | M8x15 | 30.5 | 4.5 |
| FDP | 45 S | 2000 | 3000 | 3000 | 5000 | 107.8 | 56 | 52 | 26 | 26 | 15 | 114 | 16.55 | 12.55 | M10x17 | 28 | 4.5 |
| FDP | 45 T | 2000 | 3000 | 3000 | 5000 | 120 | 56 | 43.5 | 26 | 26 | 15 | 114 | 13 | 9.5 | M10x17 | 22 | 5 |

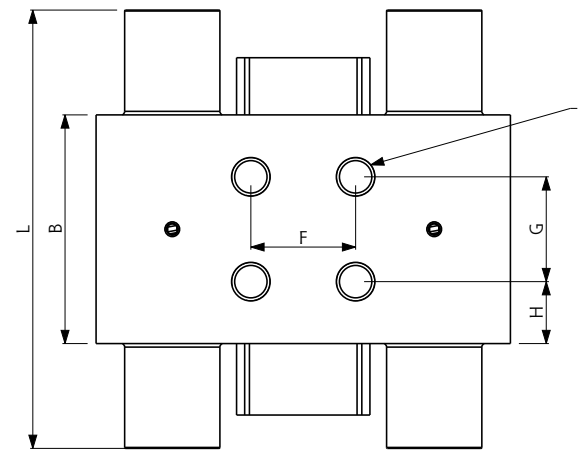
FDPH Series - Powered double piston element

New line created to have a high clamping force in small spaces.
 Powered Dual Locking Action: with a pair of pistons for each tightening part.
 The clamping force of this element is double that of F line.

FDPH##--- S
 FDPH##--- E



M5
 AIR CONNECTION
 we recommend
 the use of compressed
 air hose ø 6x4



Guide size **15 ÷ 55 mm**
 Working type **Norm. Open**
 Body **Steel**
 Operating Temperature **-20°C ÷ +80°C**
 Operating Pressure **5,5 ÷ 8 bar**
 Switching time **40 ÷ 60 mSec**
 Contact parts Hardness **60 ÷ 62 HRC**

- ◆ Dual piston system: high clamping force
- ◆ Small size
- ◆ Short reaction time.

FDPH##\$ M
 FDPH##\$ D



Guide size **15 ÷ 55 mm**
 Working type **Norm. Closed**
 Body **Steel**
 Operating Temperature **-20°C ÷ +80°C**
 Operating Pressure **5,5 ÷ 8 bar**
 Switching time **40 ÷ 60 mSec**
 Contact parts Hardness **60 ÷ 62 HRC**

- ◆ Locking element without the use of energy
- ◆ High clamping force thanks to a double piston system
- ◆ Small size
- ◆ Short reaction times.

| Type | Size | Clamping Force [N] | | | D | A [mm] | B [mm] | D [mm] | F [mm] | G [mm] | H [mm] | L [mm] | P [mm] | Q [mm] | R | S [mm] | T [mm] |
|-------|------|--------------------|------|------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | M | S | E | | | | | | | | | | | | | |
| FDPH | 15 S | 800 | 1300 | 1300 | 2100 | 61 | 56 | 21.5 | 15 | 15 | 20.5 | 94 | 5 | 5 | M4x4 | 16.2 | 16.2 |
| FDPH | 15 T | 800 | 1300 | 1300 | 2100 | 61 | 56 | 21.5 | 15 | 15 | 20.5 | 94 | 5 | 5.2 | M4x4 | 17 | 17 |
| FDPH | 20 S | 1200 | 2000 | 2000 | 3200 | 70 | 51 | 27 | 20 | 27 | 12 | 95 | 6.5 | 6.5 | M5x6 | 16.1 | 15.8 |
| FDPH | 20 T | 1200 | 2000 | 2000 | 3200 | 73 | 51 | 25.5 | 20 | 27 | 12 | 95 | 5 | 5 | M5x6 | 16.1 | 15.8 |
| FDPH | 25 S | 1500 | 2400 | 2400 | 3900 | 75 | 51 | 32.5 | 20 | 20 | 15.5 | 100 | 5 | 7.25 | M6x7 | 25.5 | 5 |
| FDPH | 25 T | 1500 | 2400 | 2400 | 3900 | 78 | 51 | 32.5 | 20 | 20 | 15.5 | 100 | 5 | 7.25 | M6x7 | 20.5 | 5 |
| FDPH | 30 S | 2100 | 3500 | 3500 | 5600 | 90 | 50 | 38 | 22 | 22 | 14 | 108 | 9 | 5 | M8x10 | 12 | 25 |
| FDPH | 30 T | 2100 | 3500 | 3500 | 5600 | 93 | 50 | 38 | 22 | 22 | 14 | 108 | 9 | 5 | M8x10 | 20.5 | 5 |
| FDPHL | 35 S | 2100 | 3500 | 3500 | 5600 | 97 | 50 | 40 | 24 | 24 | 13 | 108 | 11 | 8 | M8x15 | 25 | 12 |
| FDPH | 35 S | 2500 | 4000 | 4000 | 6500 | 101 | 57.6 | 42 | 24 | 24 | 16.8 | 97/6 | 10.5 | 6.5 | M8x15 | 28.8 | 5 |
| FDPHH | 35 S | 3000 | 4600 | 4600 | 7600 | 106 | 57.6 | 43.5 | 24 | 24 | 16.8 | 121.6 | 10.5 | 6.5 | M8x15 | 28.8 | 6 |
| FDPH | 35 T | 2500 | 4000 | 4000 | 6500 | 109 | 60.8 | 42.3 | 24 | 24 | 18.4 | 124.6 | 7 | 5 | M8x16 | 30.4 | 5 |
| FDPH | 45 S | 3000 | 4600 | 4600 | 7600 | 120 | 60.8 | 55 | 26 | 26 | 17.4 | 124.8 | 12 | 7 | M10x18 | 30.4 | 5 |
| FDPH | 45 T | 3000 | 4600 | 4600 | 7600 | 120 | 60.8 | 49.3 | 26 | 26 | 17.4 | 124.8 | 12.3 | 7 | M10x19 | 30.4 | 5 |
| FDPH | 55 S | 4000 | 6000 | 6000 | 10000 | 128 | 60 | 59 | 30 | 30 | 15 | 126 | 18 | 8 | M10x20 | 30 | 23.5 |
| FDPH | 55 T | 4000 | 6000 | 6000 | 10000 | 136 | 60 | 54 | 30 | 30 | 15 | 126 | 13 | 8 | M10x20 | 27 | 23.5 |

FDPM Series - Clamping and braking element with integrated springs

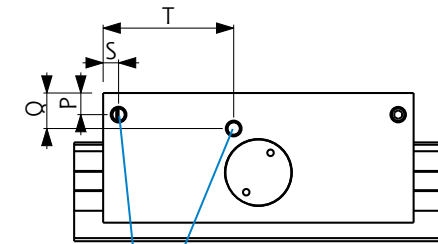
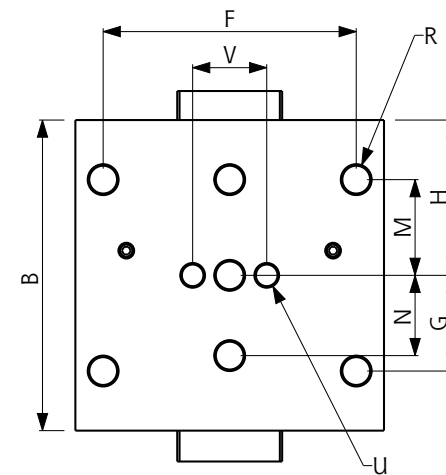
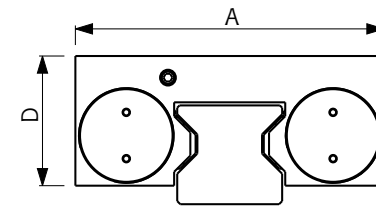
Braking element with high clamping force.
Material and shape of contact parts allow high clamping force without damaging the rail.

FDPM#--- M
FDPM#--- D



Guide size **25 ÷ 35 mm**
Working type **Norm. Closed**
Body **Steel**
Operating Temperature **-20°C ÷ 80°C**
Operating Pressure **5,5 ÷ 8 bar**
Switching time **40 ÷ 60 mSec**
Contact parts Hardness **60 ÷ 62 HRC**

- ◆ Locking element without the use of energy
- ◆ High clamping force thanks to a double piston system
- ◆ Short reaction times
- ◆ Compact and rigid body
- ◆ Clamping in case of pressure drop
- ◆ Working in emergency stop



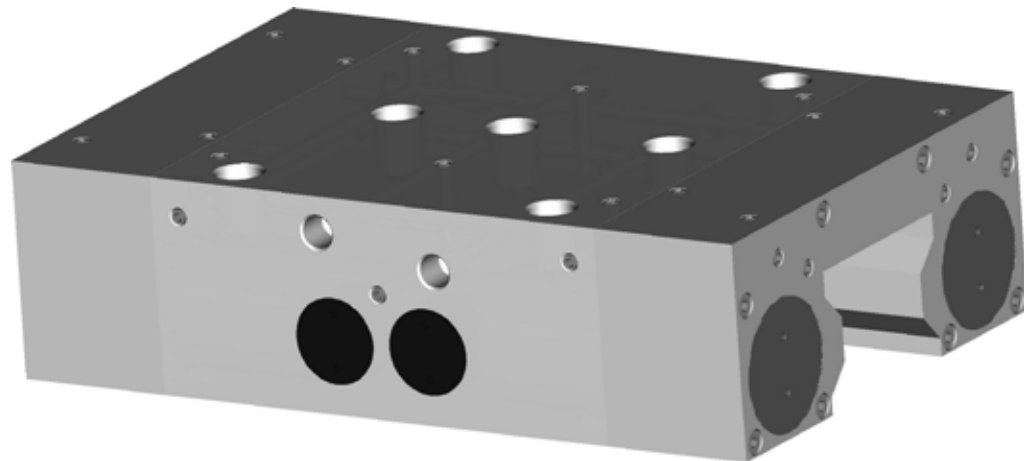
M5
AIR CONNECTION
we recommend
the use of compressed
air hose \varnothing 6x4

| Type | Size | Clamping Force [N] | | A [mm] | B [mm] | D [mm] | F [mm] | G [mm] | H [mm] | M [mm] | N [mm] | P [mm] | Q [mm] | R | S [mm] | T [mm] | U | V [mm] |
|--------|------|--------------------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| | | M | D | | | | | | | | | | | | | | | |
| FRCDPM | 25 S | 1500 | 3900 | 70 | 99 | 32.5 | 57 | 22.5 | 49.5 | 22.5 | 20 | 7.75 | 5.25 | M8x7 | 5 | 56 | M6x7 | 20 |
| FRCDPM | 25 T | 1500 | 3900 | 72 | 99 | 32.5 | 57 | 22.5 | 49.5 | 22.5 | 20 | 7.75 | 7.75 | M8x7 | 5 | 43 | M6x7 | 20 |
| FRCDPM | 30 S | 2100 | 5600 | 87 | 99 | 38 | 72 | 26 | 49.5 | 26 | 22 | 9 | 5 | M10x8 | 5 | 42 | M8x8 | 22 |
| FRCDPM | 30 T | 2100 | 5600 | 90 | 99 | 38 | 72 | 26 | 49.5 | 26 | 22 | 9 | 5 | M10x8 | 5 | 42 | M8x8 | 22 |
| FRCDPM | 35 S | 2600 | 6600 | 100 | 100.6 | 42 | 82 | 31 | 50.3 | 31 | 26 | 7 | 11.5 | M10x10 | 5 | 42.3 | M8x10 | 24 |
| FRCDPM | 35 T | 2600 | 6600 | 108 | 100.6 | 42 | 82 | 31 | 50.3 | 31 | 26 | 7 | 11.5 | M10x10 | 5 | 42.3 | M8x10 | 24 |

FDI Series - Clamping and braking element with integrated springs

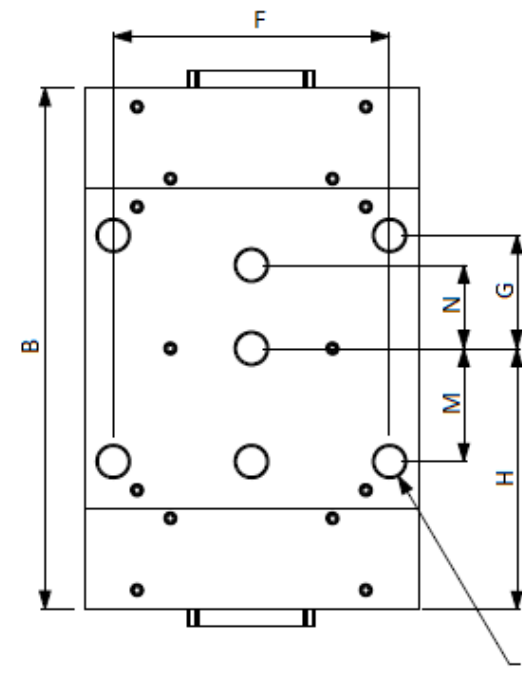
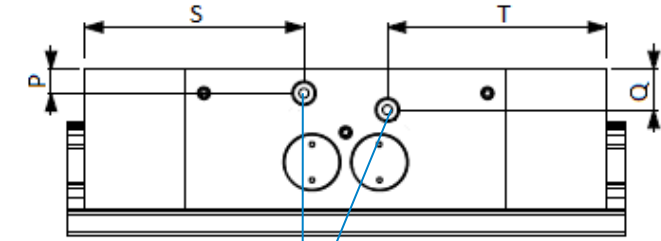
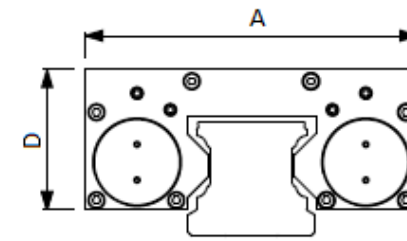
Braking element with high clamping force.
Material and shape of contact parts allow high clamping force without damaging the rail.

FDI##--- M
FDI##--- D



Guide size **55 mm**
Working type **Norm. Closed**
Body **Steel**
Operating Temperature **-20°C ÷ 80°C**
Operating Pressure **5,5 ÷ 8 bar**

- ◆ Locking element without the use of energy
- ◆ High clamping force thanks to a double piston system
- ◆ Short reaction times
- ◆ Compact and rigid body
- ◆ Clamping in case of pressure drop
- ◆ Working in emergency stop



| Type | Size | Clamping Force [N] | | A [mm] | B [mm] | D [mm] | F [mm] | G [mm] | H [mm] | M [mm] | N [mm] | P [mm] | Q [mm] | R | S [mm] | T [mm] |
|------|------|--------------------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | M | D | | | | | | | | | | | | | |
| FDI | 55 S | 7700 | 9200 | 140 | 219 | 59 | 116 | 47.5 | 109.5 | 47.5 | 35 | 10 | 17 | M14x14 | 92 | 92 |

FMC Series - Single cylinder element

Compact and inexpensive locking element.

These characteristics are obtained using a single contact section.

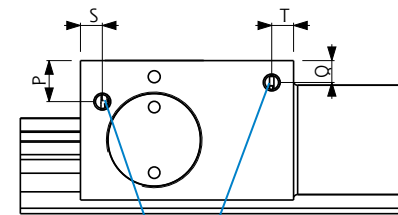
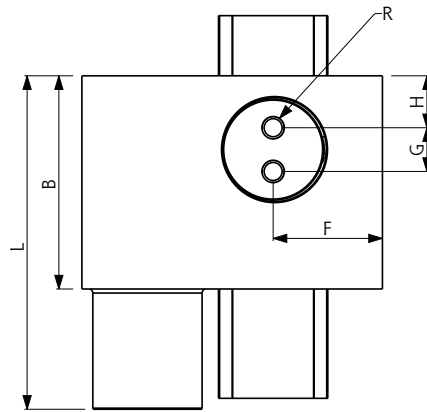
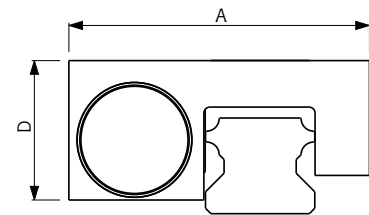
The clamping action is allowed by the floating system of the body that ensures:

- the clamping of the rail on one side by the contact section and on the other by the body itself;
- a symmetrical distribution of clamping force on the linear guide;
- absolutely no friction between the linear guide with the body and with the contact section when the clamping is released.

FRCMC#---S
FRCMC#---E



Guide size **15 ÷ 55 mm**
Working type **Norm. Open**
Body **Steel**
Operating Temperature **-20°C ÷ 80°C**
Operating Pressure **5,5 ÷ 8 bar**
Switching time **40 ÷ 60 mSec**
Contact parts Hardness **60 ÷ 62 HRC**



**M3/M5
AIR CONNECTION**
we recommend
the use of compressed
air hose \varnothing 6x4

FRCMC#---M
FRCMC#---D



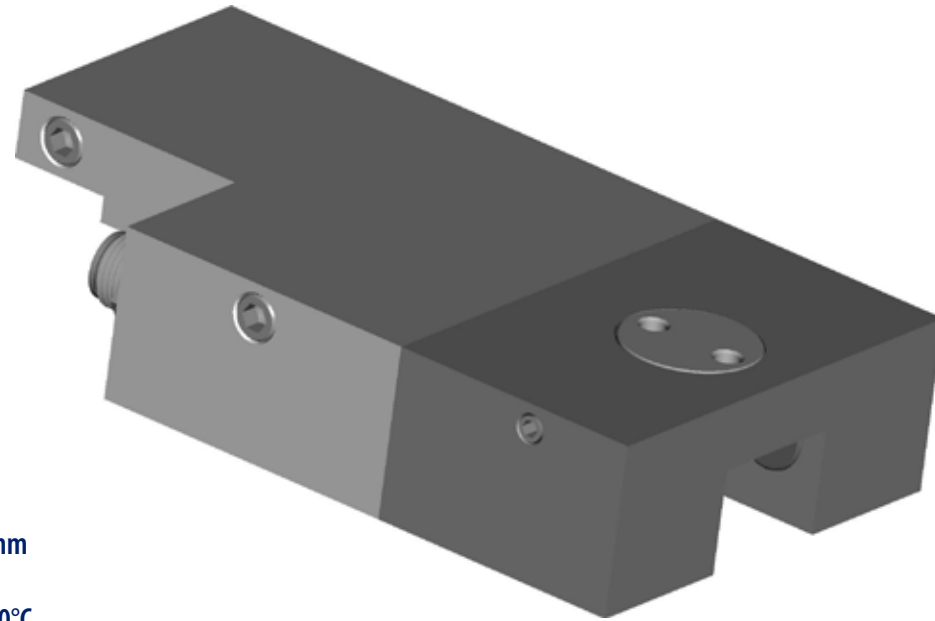
Guide size **15 ÷ 55 mm**
Working type **Norm. Closed**
Body **Steel**
Operating Temperature **-20°C ÷ 80°C**
Operating Pressure **5,5 ÷ 8 bar**
Switching time **40 ÷ 60 mSec**
Contact parts Hardness **60 ÷ 62 HRC**

| Type | Size | Clamping Force [N] | | | | A [mm] | B [mm] | D [mm] | F [mm] | G [mm] | H [mm] | L [mm] | P [mm] | Q [mm] | R | S [mm] | T [mm] |
|------|------|--------------------|-----|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | M | S | E | D | | | | | | | | | | | | |
| FMC | 15T0 | 200 | 320 | 320 | 520 | 41.5 | 36 | 18 | 14.25 | 7 | 8.9 | 55 | 4 | 4 | M4x4.5 | 3 | 4.5 |
| FMC | 20S0 | 300 | 500 | 500 | 800 | 55 | 39 | 27 | 21 | 8 | 9.5 | 61 | 5 | 4 | M4x5.8 | 4 | 4 |
| FMC | 20T0 | 300 | 500 | 500 | 800 | 55 | 39 | 25.5 | 21 | 8 | 9.5 | 61 | 5 | 4 | M4x5.8 | 4 | 4 |
| FMC | 25S0 | 375 | 600 | 600 | 975 | 60.5 | 39 | 30 | 22 | 14 | 12.5 | 63.5 | 5 | 7.5 | M4x5.8 | 5 | 5 |
| FMC | 25T0 | 375 | 600 | 600 | 975 | 60.5 | 39 | 30 | 22 | 14 | 12.5 | 63.5 | 5 | 7.5 | M4x5.8 | 5 | 5 |
| FMC | 25T5 | 300 | 500 | 500 | 800 | 58 | 35 | 28 | 23 | 12 | 11.5 | 57 | 6 | 5 | M5x7 | 5 | 5 |

FMCE Series Electric clamping element

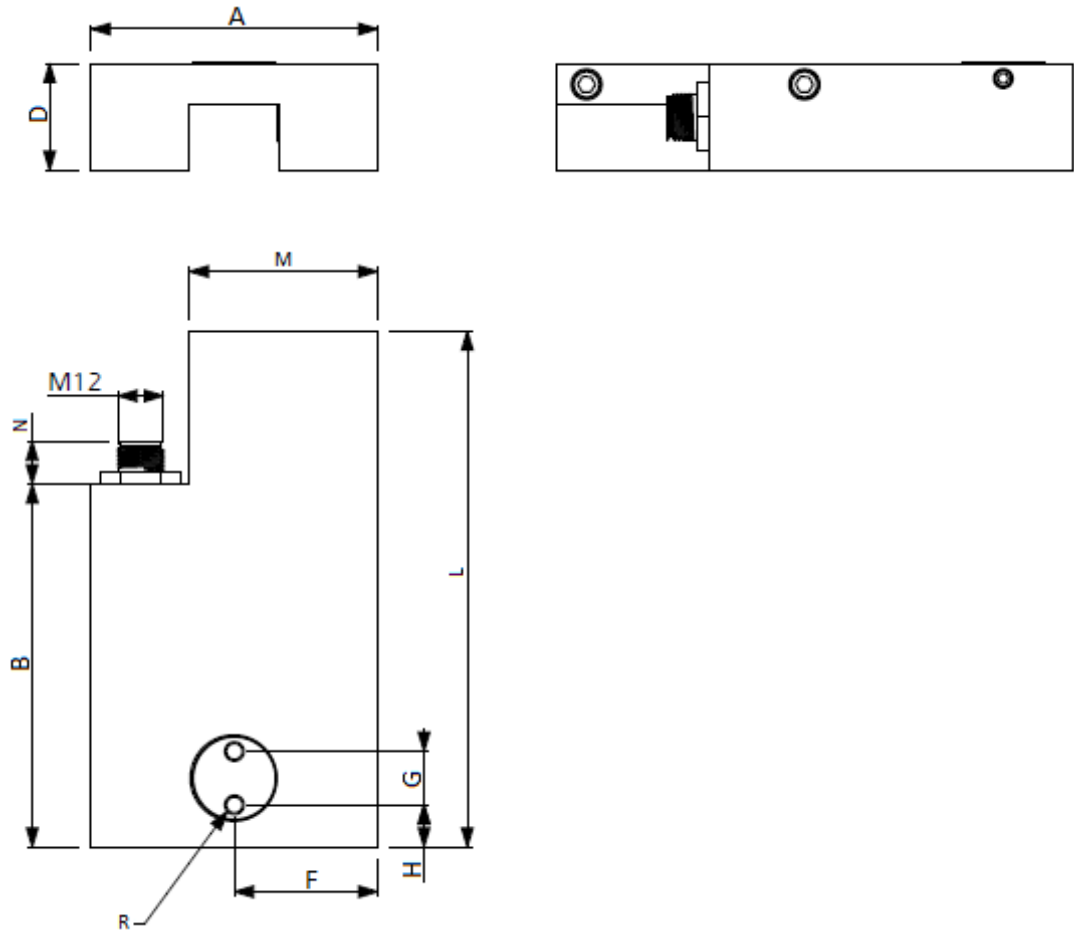
Bistable clamping element.
Keeping the element closed or open doesn't require voltage supply.

FMCE##--



Guide size **20 ÷ 25 mm**
 Body **Steel**
 Operating Temperature **-10°C ÷ 70°C**
 Direct Current Voltage **24 V**
 Closing time **< 3 Sec**
 Opening time **< 1.5 Sec**

- ◆ Short length
- ◆ Self-locking
- ◆ 5 pin connector
- ◆ Bistable



| Type | Size | Clamping Force [N] | A [mm] | B [mm] | D [mm] | F [mm] | G [mm] | H [mm] | L [mm] | M [mm] | N [mm] | R |
|------|-------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| FMCE | 25 T0 | 1400 | 75 | 95 | 28 | 37.5 | 14 | 11 | 55 | 49.3 | 11.2 | M5x7 |

FMN Series - Manual clamping element for linear guides

Simple and reliable, this clamping element is manually controlled.

By acting on the adjustable locking lever, the contact profiles press with sync on the surfaces of the rail.

The floating profiles of contact ensure a symmetrical distribution of the force on the linear guide.

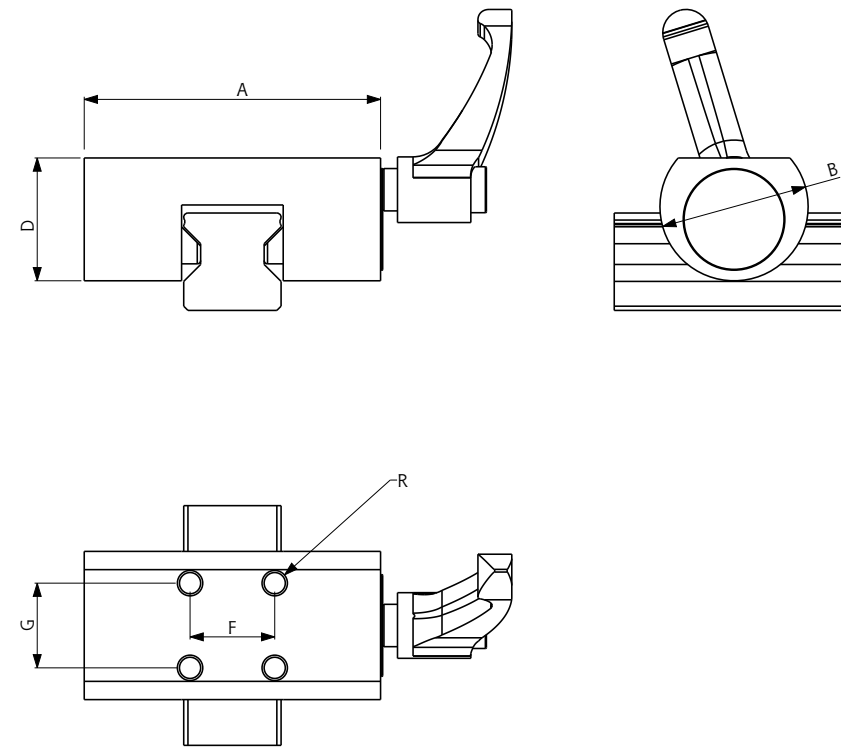
New ergonomic design.

FMN ##---



Guide size **15 ÷ 65 mm**
 Working type **Manual**
 Body **Steel**

- ◆ Simple and inexpensive
- ◆ Floating locking contacts



| Type | Size | Clamping Force [N] | A [mm] | B [mm] | D [mm] | F [mm] | G [mm] | R |
|------|------|--------------------|--------|--------|--------|--------|--------|--------|
| FMN | 15 S | 1200 | 47 | 25 | 19 | 17 | 17 | M4x5 |
| FMN | 15 T | 1200 | 47 | 25 | 17.5 | 17 | 17 | M4x5 |
| FMN | 20 S | 1200 | 60 | 28 | 23 | 15 | 15 | M5X6 |
| FMN | 20 T | 1200 | 60 | 26 | 20 | 15 | 15 | M5X6 |
| FMN | 25 S | 1200 | 70 | 35 | 29 | 20 | 20 | M6x7 |
| FMN | 25 T | 1200 | 70 | 32 | 24 | 20 | 20 | M6x8 |
| FMN | 30 S | 2000 | 90 | 40 | 32 | 22 | 22 | M6x8 |
| FMN | 30 T | 2000 | 90 | 38 | 29 | 22 | 22 | M6x8 |
| FMN | 35 S | 2000 | 98 | 45 | 37 | 24 | 24 | M8x10 |
| FMN | 35 T | 2000 | 98 | 42 | 32 | 24 | 24 | M8x10 |
| FMN | 45 S | 2000 | 118 | 55 | 48 | 26 | 26 | M10x14 |
| FMN | 45 T | 2000 | 118 | 50 | 42 | 26 | 26 | M10x14 |
| FMN | 55 S | 2000 | 138 | 65 | 57.8 | 30 | 30 | M14x16 |
| FMN | 55 T | 2000 | 138 | 56 | 47 | 30 | 30 | M14x16 |
| FMN | 65 T | 2000 | 160 | 70 | 58 | 35 | 35 | M16x20 |

FMN-M Series - Manual clamping element for miniature linear guides

Manual clamping element for miniature linear guides.

By acting on the locking screw, the contact sections press with sync on the surfaces of the rail.

The floating profiles of contact ensure a symmetrical distribution of the force on the linear guide.

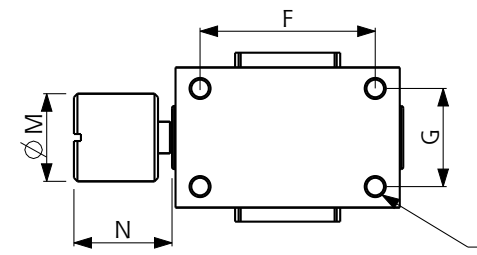
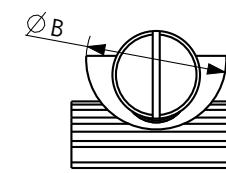
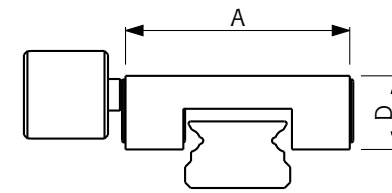
New ergonomic design to save space.

FMN ##---



Guide size **9 ÷ 15 mm**
 Working type **Manual**
 Body **Steel**

- ◆ Simple and inexpensive
- ◆ Floating locking contacts

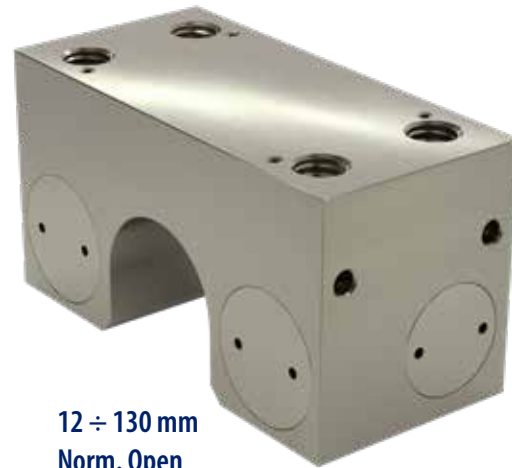


| Type | Size | Clamping Force [N] | A [mm] | B [mm] | D [mm] | F [mm] | G [mm] | M [mm] | N [mm] | R |
|------|------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| MFN | 9 M | 100 | 20 | 17 | 7.3 | 15 | 11 | 8 | 9 | M3x3 |
| MFN | 12 M | 150 | 27 | 19 | 9.5 | 20 | 13 | 10 | 10 | M3x4.5 |
| MFN | 15 M | 180 | 32 | 20 | 10.5 | 25 | 14 | 12.5 | 14 | M3X5 |

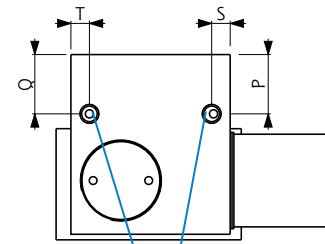
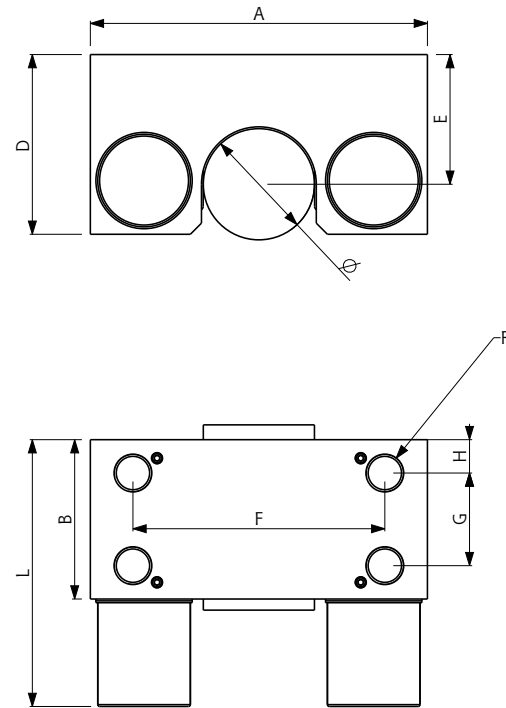
FC Series - Pneumatic clamping elements for round bars

The same high performance of F line for round guides
The tightening is done using an amplification system with inclined plane.

FC##--E
FC##--E



Guide size **12 ÷ 130 mm**
Working type **Norm. Open**
Body **Steel**
Operating Temperature **-20°C ÷ 80°C**
Operating Pressure **5,5 ÷ 8 bar**
Switching time **40 ÷ 60 mSec**
Contact parts Hardness **60 ÷ 62 HRC**



M5
AIR CONNECTION
we recommend
the use of compressed
air hose ø 6x4

FC##--M
FC##--D



Guide size **12 ÷ 130 mm**
Working type **Norm. Closed**
Body **Steel**
Operating Temperature **-20°C ÷ 80°C**
Operating Pressure **5,5 ÷ 8 bar**
Switching time **40 ÷ 60 mSec**
Contact parts Hardness **60 ÷ 62 HRC**

| Type | Size | Clamping Force [N] | | | D | A [mm] | B [mm] | D [mm] | E [mm] | F [mm] | G [mm] | H [mm] | L [mm] | P [mm] | Q [mm] | R | S [mm] | T [mm] |
|------|------|--------------------|------|------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | M | S | E | | | | | | | | | | | | | | |
| FC | 12 | 400 | 650 | 650 | 1050 | 50 | 35 | 31.5 | 22 | 15 | 15 | 10 | 54 | 11.65 | 11.65 | M5x6 | 5 | 5 |
| FC | 14 | 400 | 650 | 650 | 1050 | 55 | 35 | 31.5 | 22 | 15 | 15 | 10 | 54 | 11.65 | 11.65 | M5x6 | 5 | 5 |
| FC | 16 | 400 | 650 | 650 | 1050 | 55 | 35 | 31.5 | 22 | 15 | 15 | 10 | 54 | 11.65 | 11.65 | M5x6 | 5 | 5 |
| FC | 20 | 600 | 1000 | 1000 | 1600 | 66 | 38 | 36.5 | 25 | 45 | 18 | 13 | 60 | 12.5 | 12.5 | M8x10 | 13.5 | 5 |
| FC | 25 | 750 | 1200 | 1200 | 1950 | 77 | 38.5 | 43 | 30 | 60 | 20 | 8 | 63 | 10.5 | 15.5 | M10x12 | 5 | 5 |
| FC | 30 | 1050 | 1750 | 1750 | 2800 | 91 | 43 | 48.5 | 35 | 68 | 25 | 9 | 72 | 16 | 16 | M10x12 | 5 | 5 |
| FC | 40 | 1500 | 2300 | 2300 | 3800 | 115 | 49 | 63 | 45 | 90 | 26 | 9 | 81 | 20 | 20 | M10x15 | 5 | 17 |
| FC | 50 | 2000 | 3000 | 3000 | 5000 | 131 | 48 | 70 | 50 | 108 | 30 | 9 | 81 | 21.5 | 21.5 | M10x15 | 5 | 5 |
| FC | 60 | 2000 | 3000 | 3000 | 5000 | 141 | 48 | 70 | 70 | 108 | 30 | 9 | 81 | 15 | 15 | M10x15 | 5 | 5 |
| FC | 130 | 2000 | 3000 | 3000 | 5000 | 211 | 48 | 109 | 89 | - | - | - | 81 | 15 | 15 | M10x15 | 17 | 17 |

FCMN Series - Manual clamping element for linear guides

Simple and reliable, this clamping element is manually controlled.

By acting on the adjustable locking lever, the contact profiles clamp in sync on the surfaces of the bar.

The floating profiles of contact ensure a symmetrical distribution of the force on the round bar or guide.

Ergonomic design.

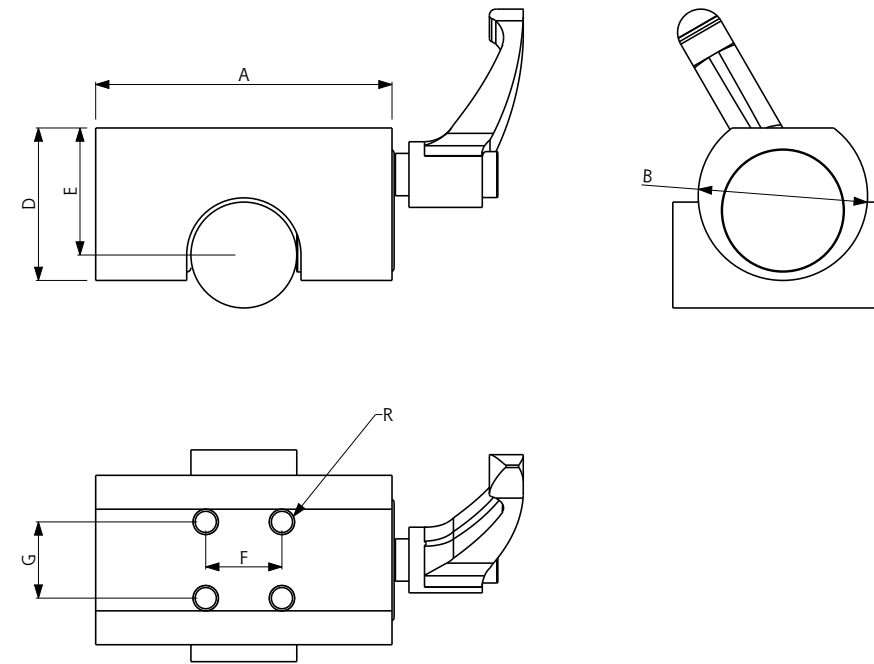
FCMN#---



Guide size
Working type
Body

12 ÷ 50 mm
Manual
Steel

- ◆ Simple and inexpensive
- ◆ Floating locking contacts



| Type | Size | Clamping Force [N] | A [mm] | B [mm] | D [mm] | E [mm] | F [mm] | G [mm] | R |
|------|-------|--------------------|--------|--------|--------|--------|--------|--------|--------|
| FCMN | 12 01 | 1200 | 43 | 30 | 24 | 18 | 17 | 17 | M4x5 |
| FCMN | 12 02 | 1200 | 43 | 33 | 24 | 18 | 32 | - | M4x5 |
| FCMN | 16 01 | 1200 | 47 | 30 | 26 | 22 | 17 | 17 | M4x5 |
| FCMN | 16 02 | 1200 | 53 | 39 | 29 | 22 | 40 | - | M4x5 |
| FCMN | 20 01 | 1200 | 60 | 32 | 28 | 25 | 15 | 15 | M5x6 |
| FCMN | 25 01 | 1200 | 70 | 40 | 36 | 30 | 18 | 18 | M6x8 |
| FCMN | 30 01 | 2000 | 90 | 45 | 41 | 35 | 20 | 20 | M6x8 |
| FCMN | 40 01 | 2000 | 107 | 58 | 51 | 45 | 25 | 25 | M10x15 |
| FCMN | 50 01 | 2000 | 130 | 65 | 55 | 50 | 30 | 30 | M14x20 |

FBS Series - Clamping and braking element for rods

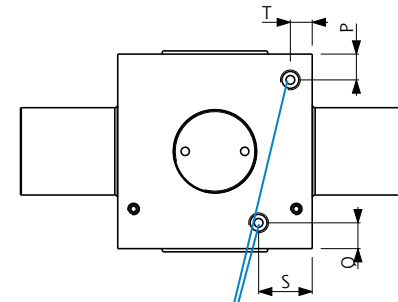
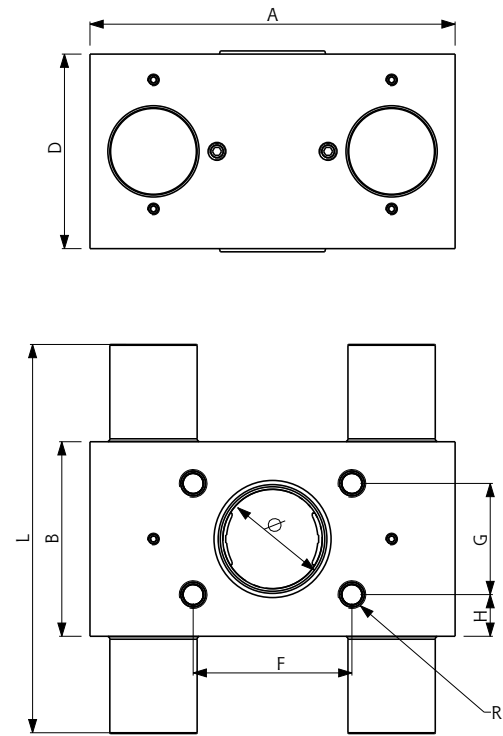
The body of the element made in anodized aluminium improves the mechanical properties of this device.
The double piston system produces clamping forces that are 50% higher than the normal mechanism, maintaining a small size.

FBS##--S
FBS##--E



Roll diameter **16 ÷ 25 mm**
Working type **Norm. Open**
Body **Anodized aluminum**
Temperature **-20°C ÷ 80°C**
Operating Pressure **5,5 ÷ 8 bar**
Switching time **40 ÷ 60 mSec**

- ◆ Compact in size
- ◆ Functioning in both directions
- ◆ High clamping force thanks to a double piston system.



M5
AIR CONNECTION
we recommend
the use of compressed
air hose $\varnothing 6 \times 4$

FBS##--M
FBS##--D



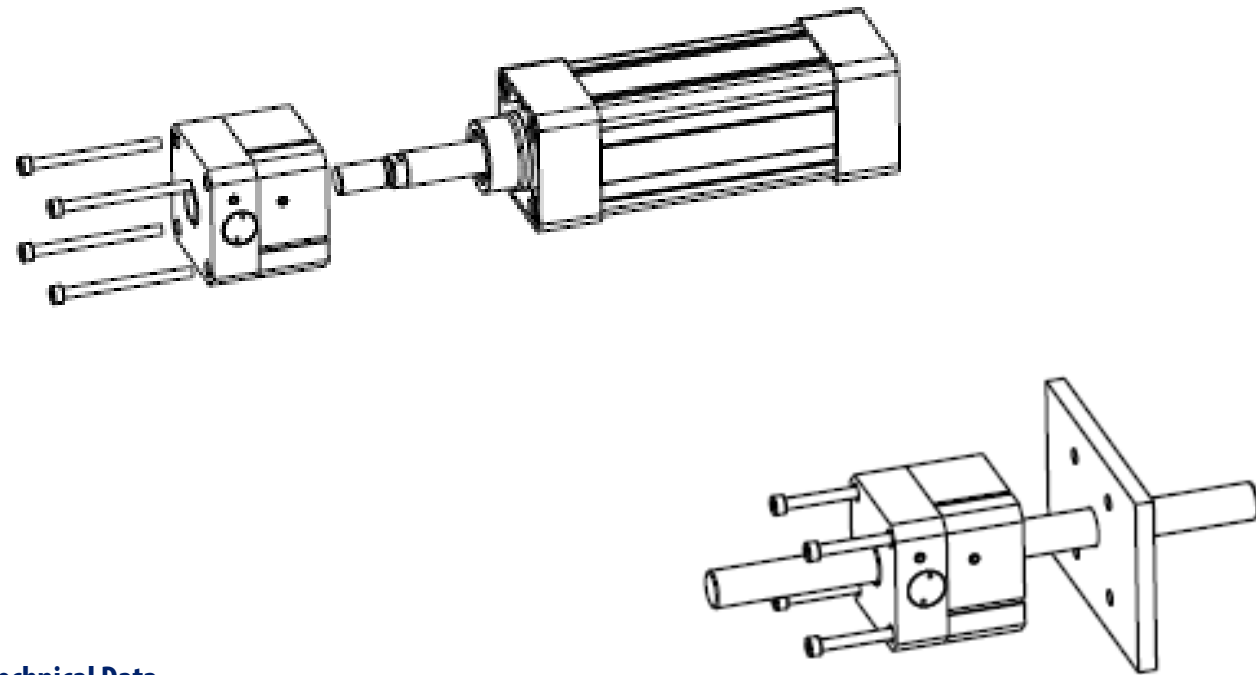
Roll diameter **16 ÷ 25 mm**
Working type **Norm. Closed**
Body **Anodized aluminum**
Temperatur **-20°C ÷ 80°C**
Operating Pressure **5,5 ÷ 8 bar**
Switching time **40 ÷ 60 mSec**

- ◆ Compact in size Functioning in both directions.
- ◆ High clamping force thanks to a double piston system.
- ◆ Used to block guided loads in case of pressure drop (emergency).

| Type | Size | Clamping Force [N] | | | | D | A [mm] | B [mm] | D [mm] | F [mm] | G [mm] | H [mm] | L [mm] | P [mm] | Q [mm] | R | S [mm] | T [mm] |
|------|------|--------------------|------|------|------|----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|-----------|-----------|
| | | M | S | E | D | | | | | | | | | | | | | |
| FBS | 16 | 1200 | 1600 | 1600 | 2800 | 83 | 49 | 49 | 40 | 28 | 10.5 | 98 | 6.5 | 6.5 | M6x6 | 13.5 | 5.5 | |
| FBS | 20 | 1200 | 1800 | 1800 | 3000 | 87 | 49 | 49 | 40 | 28 | 10.5 | 98 | 6.5 | 6.5 | M6x6 | 13.5 | 5.5 | |
| FBS | 25 | 1500 | 2000 | 2000 | 3500 | 92 | 49 | 49 | 40 | 28 | 10.5 | 98 | 6.5 | 6.5 | M6x6 | 13.5 | 5.5 | |

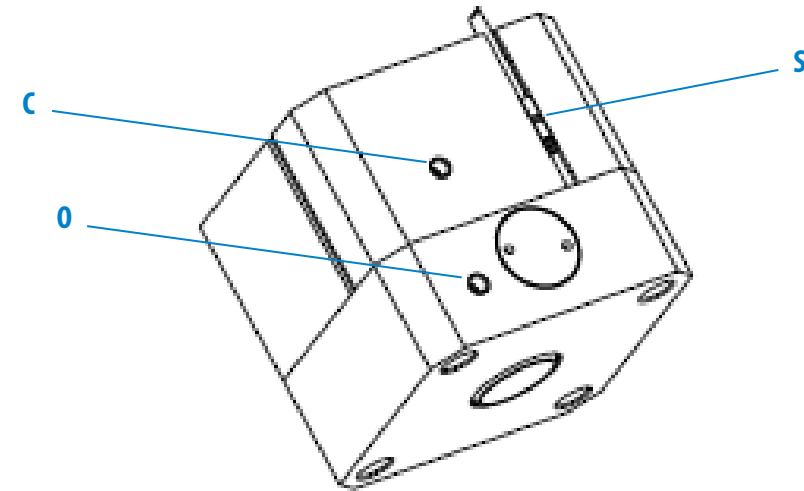
Series FBC Pneumatic cylinder blocking element

FBC is a clamping element for Pneumatic cylinders ISO 15552 and VDMA 6432.
The device blocks the rod in any position it is in the moment it is activated, not necessary in its ends of stroke.
It can also be used as a clamping unit for separate rods.



Technical Data

- \varnothing rod f7 tolerance of at least 54 HRC hardness
- Pneumatic air with ISO ISO 8573-1:2010 lubrication
- Working pressure 3-10 bar (6 bar for standard FBC which the forces refer to)
- Working temperature: $-20^{\circ}\text{C} / 80^{\circ}\text{C}$
- Clamping type: two-way mechanical
- Normally closed functioning [NC] -> it is blocked without pressure /or Normally open functioning [NO] – unlocked without pressure
- Life cycle (B10d) of 1.500.000 cycles.



- S:** Sensor (optional). Can be mounted on any side
- C:** M5 bore. Used to connect a filter (in case of FBC normally closed and simple effect) or a pneumatic connector in order to “close” the element (if in double effect)
- O:** M5 bore. Used to connect a pneumatic connector to “open” the element in case of NC. If it is NO, a filter shall be connected.

| Series | Rod | Piston Extension E[mm] | Pneumatic Absorption V[cm ³] | Pneumatic Connection | Fixing screw | Clamping Torque [Nm] |
|--------|-----|---------------------------|---|----------------------|--------------|-------------------------|
| FBC32 | 12 | 59.5 | 7 | M5 | M6 | 9.5 |
| FBC40 | 16 | 75 | 12 | M5 | M6 | 9.5 |
| FBC50 | 20 | 46 | 15 | M5 | M8 | 23 |
| FBC63 | 20 | 46 | 23 | M5 | M8 | 23 |
| FBC80 | 25 | 52 | 41 | M5 | M10 | 46 |
| FBC100 | 25 | 53 | 66.5 | G1/8" | M10 | 46 |
| FBC125 | 32 | 58.6 | 100 | G1/8" | M12 | 84 |

ERRE.DI. Automation also provides special elements to best meet customers' needs

Thanks to its advanced technical know-how and a continuous process of innovation, ERRE.DI. is able to provide customized automation components to best meet its customers' needs, creating a real partnership during the development of new solutions.

Design, manufacturing and testing are carried out within ERRE.DI. facilities in order to give a quick and effective response to customers' requests. Here below some examples of customized solutions..

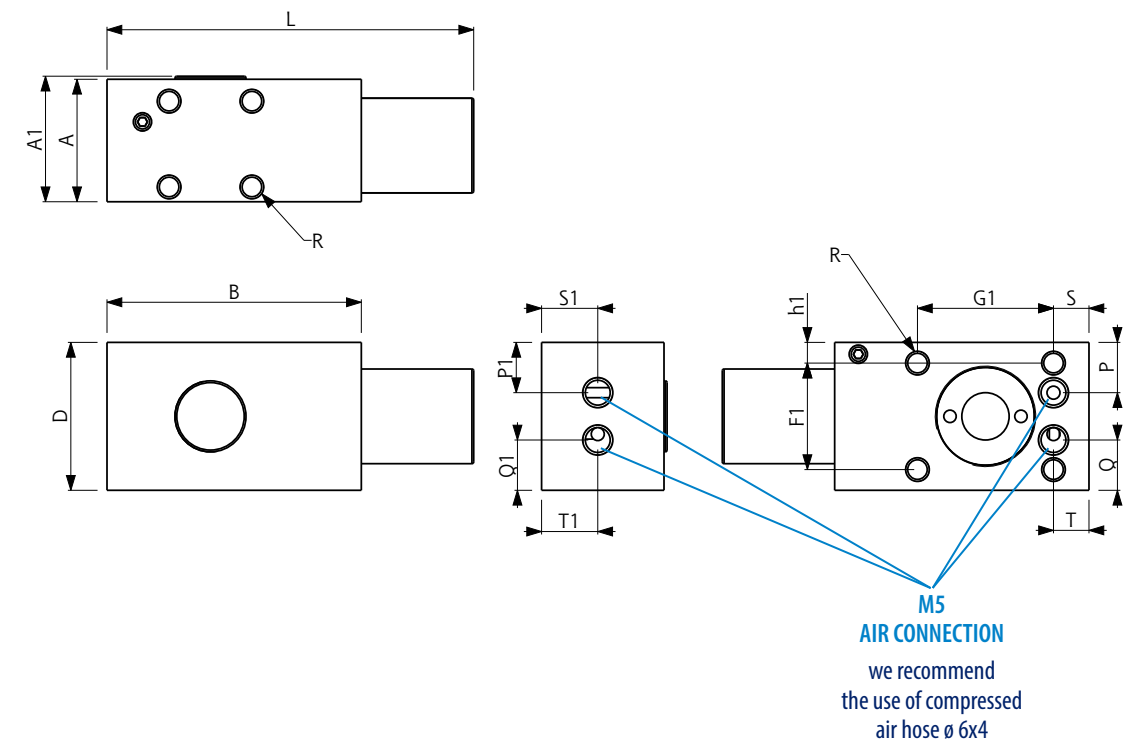
FMV Series Multifunction element

FMV##---



Guide size **15 mm**
 Working type **Norm. Open /Norm. Closed**
 Body **Steel/Aluminium**
 Temperature **-20°C ÷ 80°C**
 Operating Pressure **5,5 ÷ 8 bar**

- ◆ Small dimensions
- ◆ Multiple ways to use
- ◆ Different fields of application
- ◆ Also available with contact parts covered with rubber

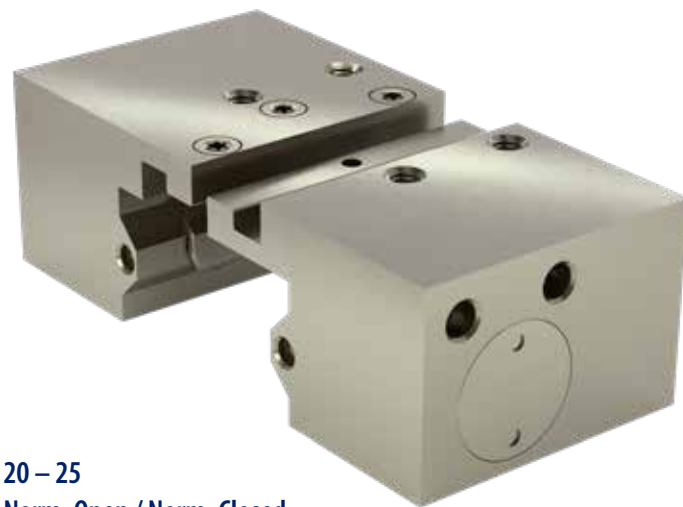


| Type | Size | Clamping Force [N] | | | | A [mm] | A1 [mm] | B [mm] | D [mm] | F [mm] | F1 [mm] | G [mm] | G1 [mm] | H [mm] | h [mm] | h1 [mm] | L [mm] | P [mm] | Q [mm] | R | S [mm] | T [mm] | P1 [mm] | Q1 [mm] | S1 [mm] | T1 [mm] |
|------|------|--------------------|-----|-----|-----|-----------|------------|-----------|-----------|-----------|------------|-----------|------------|-----------|-----------|------------|-----------|-----------|-----------|------|-----------|-----------|------------|------------|------------|------------|
| | | M | S | E | D | | | | | | | | | | | | | | | | | | | | | |
| FMV | 15 | 200 | 320 | 320 | 520 | 20.7 | 21.22 | 43 | 25 | 14.5 | 18 | 14 | 23 | 10.5 | 2.5 | 3.5 | 62 | 8.5 | 8.5 | M4X4 | 6 | 6 | 8.5 | 8.5 | 9.5 | 9.5 |

Decomposable Clamping Element

It's a small element, extremely easy to install and/or replace in the system where is used:

- Fewer parts of the production machine need to be displaced;
- No need to slide the blocking element along the whole length of the guide.



| | |
|--------------------|---------------------------|
| ## Guide size | 20 – 25 |
| Working type | Norm. Open / Norm. Closed |
| Body | Steel |
| Operating Temp. | -20°C ÷ 80°C |
| Operating Pressure | 5,5 ÷ 8 bar |

- ◆ Single-piston system
- ◆ Reduced length
- ◆ High clamping forces
- ◆ Precise positioning
- ◆ High rigidity
- ◆ Shaped profile

Note





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