



## Introduction

Since many years Pizzato Elettrica has developed products dedicated to the world of lifts and elevators.

Following selection show some items specifically developed for this sector.

## Safety switches FR series

| Dimensions             | Description  |         |         |         |           |                        |
|------------------------|--|---------|---------|---------|-----------|------------------------|
|                        | <table border="1"> <tr><td>Article</td></tr> <tr><td>FR 17A3</td></tr> <tr><td>Contact</td></tr> <tr><td>1NC ⊖</td></tr> <tr><td>11-12 0 1.5 ⊖ 6<br/>0.5</td></tr> </table> <p>Switches for applications on over-speed devices. FR series housing made of polymer glass-reinforced, self-extinguishing, shock proof thermoplastic resin, one conduit entry. Protection degree IP65.<br/>Operation: the actuator of the switch has to be pressed till the tripping point (0,5 mm).<br/>Then the actuator snaps to the end of the stroke, up to 6 mm.<br/>The reset is obtained pulling back by hand the yellow actuator. The opening of the contacts and the tripping point of the switch are perfectly simultaneous.<br/>Further options available.</p>  | Article | FR 17A3 | Contact | 1NC ⊖     | 11-12 0 1.5 ⊖ 6<br>0.5 |
| Article                |  |         |         |         |           |                        |
| FR 17A3                |  |         |         |         |           |                        |
| Contact                |  |         |         |         |           |                        |
| 1NC ⊖                  |  |         |         |         |           |                        |
| 11-12 0 1.5 ⊖ 6<br>0.5 |  |         |         |         |           |                        |
|                        | <table border="1"> <tr><td>Article</td></tr> <tr><td>FR 5A3</td></tr> <tr><td>Contact</td></tr> <tr><td>1NO+1NC ⊕</td></tr> <tr><td>21-22 0 2 ⊕ 6<br/>13-14</td></tr> </table> <p>Switches for applications on over-speed devices. FR series housing made of polymer glass-reinforced, self-extinguishing, shock proof thermoplastic resin, one conduit entry. Protection degree IP65.<br/>Operation: the actuator of the switch has to be pressed till the tripping point (2 mm).<br/>Then the actuator snaps to the end of the stroke, up to 6 mm.<br/>The reset is obtained pulling back by hand the yellow actuator. The opening of the contacts and the tripping point of the switch are perfectly simultaneous.<br/>Further options available.</p> | Article | FR 5A3  | Contact | 1NO+1NC ⊕ | 21-22 0 2 ⊕ 6<br>13-14 |
| Article                |  |         |         |         |           |                        |
| FR 5A3                 |  |         |         |         |           |                        |
| Contact                |  |         |         |         |           |                        |
| 1NO+1NC ⊕              |  |         |         |         |           |                        |
| 21-22 0 2 ⊕ 6<br>13-14 |  |         |         |         |           |                        |
|                        | <table border="1"> <tr><td>Article</td></tr> <tr><td>FR 11A3</td></tr> <tr><td>Contact</td></tr> <tr><td>2NC ⊕</td></tr> <tr><td>11-12 0 2 ⊕ 6<br/>21-22</td></tr> </table> <p>Switches for applications on over-speed devices. FR series housing made of polymer glass-reinforced, self-extinguishing, shock proof thermoplastic resin, one conduit entry. Protection degree IP65.<br/>Operation: the actuator of the switch has to be pressed till the tripping point (2 mm).<br/>Then the actuator snaps to the end of the stroke, up to 6 mm.<br/>The reset is obtained pulling back by hand the yellow actuator. The opening of the contacts and the tripping point of the switch are perfectly simultaneous.<br/>Further options available.</p>    | Article | FR 11A3 | Contact | 2NC ⊕     | 11-12 0 2 ⊕ 6<br>21-22 |
| Article                |  |         |         |         |           |                        |
| FR 11A3                |  |         |         |         |           |                        |
| Contact                |  |         |         |         |           |                        |
| 2NC ⊕                  |  |         |         |         |           |                        |
| 11-12 0 2 ⊕ 6<br>21-22 |  |         |         |         |           |                        |

## Safety switches FP series

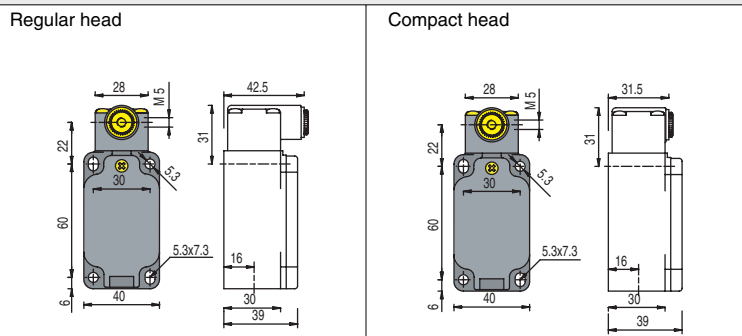
| Dimensions   | Description  |         |   |           |  |         |  |              |  |
|--------------|--|---------|---|-----------|--|---------|--|--------------|--|
|              | <table border="1"> <tr> <td>Article</td> <td>Intermediate and terminal floor switch FP series with housing made of polymer glass-reinforced, self-extinguishing, shock proof thermoplastic resin, one conduit entry. Protection degree IP65. Complete with <math>\varnothing</math> 40 mm rubber wheel. One way activation (towards right).</td> </tr> <tr> <td>FP 945-S3</td> <td></td> </tr> <tr> <td>Contact</td> <td>Positive opening <math>\oplus</math> guaranteed if activated by designed cam.</td> </tr> <tr> <td>2NO <math>\oplus</math></td> <td>On request one way activation towards left. Further options available.</td> </tr> </table> | Article | Intermediate and terminal floor switch FP series with housing made of polymer glass-reinforced, self-extinguishing, shock proof thermoplastic resin, one conduit entry. Protection degree IP65. Complete with $\varnothing$ 40 mm rubber wheel. One way activation (towards right). | FP 945-S3 |  | Contact | Positive opening $\oplus$ guaranteed if activated by designed cam. | 2NO $\oplus$ | On request one way activation towards left. Further options available. |
| Article      | Intermediate and terminal floor switch FP series with housing made of polymer glass-reinforced, self-extinguishing, shock proof thermoplastic resin, one conduit entry. Protection degree IP65. Complete with $\varnothing$ 40 mm rubber wheel. One way activation (towards right).  |         |   |           |  |         |  |              |  |
| FP 945-S3    |  |         |   |           |  |         |  |              |  |
| Contact      | Positive opening $\oplus$ guaranteed if activated by designed cam.   |         |   |           |  |         |  |              |  |
| 2NO $\oplus$ | On request one way activation towards left. Further options available.   |         |   |           |  |         |  |              |  |

## Microswitches M series

| Dimensions | Description   |         |   |       |   |
|------------|---|---------|---|-------|---|
|            | <table border="1"> <tr> <td>Article</td> <td>Door switch with housing made of polymer glass-reinforced, self-extinguishing, shock proof thermoplastic resin.</td> </tr> <tr> <td>MS 42</td> <td>Change-over contacts 1NO-1NC. Protection degree IP20 without terminal covers. Protection degree IP40 with terminal covers. See details on chapter 8</td> </tr> </table> | Article | Door switch with housing made of polymer glass-reinforced, self-extinguishing, shock proof thermoplastic resin. | MS 42 | Change-over contacts 1NO-1NC. Protection degree IP20 without terminal covers. Protection degree IP40 with terminal covers. See details on chapter 8 |
| Article    | Door switch with housing made of polymer glass-reinforced, self-extinguishing, shock proof thermoplastic resin.   |         |   |       |   |
| MS 42      | Change-over contacts 1NO-1NC. Protection degree IP20 without terminal covers. Protection degree IP40 with terminal covers. See details on chapter 8   |         |   |       |   |
|            | <table border="1"> <tr> <td>Article</td> <td>Door switch with housing made of polymer glass-reinforced, self-extinguishing, shock proof thermoplastic resin.</td> </tr> <tr> <td>MS 45</td> <td>Change-over contacts 1NO-1NC. Protection degree IP20 without terminal covers. Protection degree IP40 with terminal covers. See details on chapter 8</td> </tr> </table> | Article | Door switch with housing made of polymer glass-reinforced, self-extinguishing, shock proof thermoplastic resin. | MS 45 | Change-over contacts 1NO-1NC. Protection degree IP20 without terminal covers. Protection degree IP40 with terminal covers. See details on chapter 8 |
| Article    | Door switch with housing made of polymer glass-reinforced, self-extinguishing, shock proof thermoplastic resin.   |         |   |       |   |
| MS 45      | Change-over contacts 1NO-1NC. Protection degree IP20 without terminal covers. Protection degree IP40 with terminal covers. See details on chapter 8   |         |   |       |   |
|            | <table border="1"> <tr> <td>Article</td> <td>Door switch with housing made of polymer glass-reinforced, self-extinguishing, shock proof thermoplastic resin.</td> </tr> <tr> <td>MS 58</td> <td>Change-over contacts 1NO-1NC. Protection degree IP20 without terminal covers. Protection degree IP40 with terminal covers. See details on chapter 8</td> </tr> </table> | Article | Door switch with housing made of polymer glass-reinforced, self-extinguishing, shock proof thermoplastic resin. | MS 58 | Change-over contacts 1NO-1NC. Protection degree IP20 without terminal covers. Protection degree IP40 with terminal covers. See details on chapter 8 |
| Article    | Door switch with housing made of polymer glass-reinforced, self-extinguishing, shock proof thermoplastic resin.   |         |   |       |   |
| MS 58      | Change-over contacts 1NO-1NC. Protection degree IP20 without terminal covers. Protection degree IP40 with terminal covers. See details on chapter 8   |         |   |       |   |
|            | <table border="1"> <tr> <td>Article</td> <td>Door switch with housing made of polymer glass-reinforced, self-extinguishing, shock proof thermoplastic resin.</td> </tr> <tr> <td>MS 53</td> <td>Change-over contacts 1NO-1NC. Protection degree IP20 without terminal covers. Protection degree IP40 with terminal covers. See details on chapter 8</td> </tr> </table> | Article | Door switch with housing made of polymer glass-reinforced, self-extinguishing, shock proof thermoplastic resin. | MS 53 | Change-over contacts 1NO-1NC. Protection degree IP20 without terminal covers. Protection degree IP40 with terminal covers. See details on chapter 8 |
| Article    | Door switch with housing made of polymer glass-reinforced, self-extinguishing, shock proof thermoplastic resin.   |         |   |       |   |
| MS 53      | Change-over contacts 1NO-1NC. Protection degree IP20 without terminal covers. Protection degree IP40 with terminal covers. See details on chapter 8   |         |   |       |   |

FP series  
polymer housing

### Position switches without actuator



#### IMPORTANT:

**For safety applications:**  
please join only switches and  
actuators marked with symbol  
⊕.

For more information about  
safety applications see chapter  
19.

Contact block

|                 |       |                              |                                      |                                      |
|-----------------|-------|------------------------------|--------------------------------------|--------------------------------------|
| 5               | Zb    | snap action                  | <b>FP 538</b> ⊕ 1NO+1NC              | FP 558 ⊕ 1NO+1NC                     |
| 6               | Zb    | slow action                  | FP 638 ⊕ 1NO+1NC                     | FP 658 ⊕ 1NO+1NC                     |
| 7               | Zb    | slow action                  | FP 738 ⊕ 1NO+1NC Overlapped Contacts | FP 758 ⊕ 1NO+1NC Overlapped Contacts |
| 9               | Y+Y   | slow action                  | FP 938 ⊕ 2NC                         | FP 958 ⊕ 2NC                         |
| 10              | X+X   | slow action                  | FP 1038 2NO                          | FP 1058 2NO                          |
| 11              | Y+Y   | snap action                  | FP 1138 ⊕ 2NC                        | FP 1158 ⊕ 2NC                        |
| 14              | Y+Y   | slow action                  | FP 1438 ⊕ 2NC Shifted Contacts       | FP 1458 ⊕ 2NC Shifted Contacts       |
| 15              | X+X   | slow action                  | FP 1538 2NO Shifted Contacts         | FP 1558 2NO Shifted Contacts         |
| 16              | Y+Y   | slow action                  | FP 1638 ⊕ 2NC Independent Contacts   |                                      |
| 20              | Y+Y+X | slow action                  | FP 2038 ⊕ 2NC+1NO                    | FP 2058 ⊕ 2NC+1NO                    |
| 21              | Y+Y+Y | slow action                  | FP 2138 ⊕ 3NC                        | FP 2158 ⊕ 3NC                        |
| 22              | Y+X+X | slow action                  | FP 2238 ⊕ 1NC+2NO                    | FP 2258 ⊕ 1NC+2NO                    |
| 2               | Za+Za | snap action                  | FP 238 1NO-1NC+1NO-1NC               | FP 258 1NO-1NC+1NO-1NC               |
| E1              | PNP   | electronic                   | FP E138 1NO+1NC See chapter 11       | FP E158 1NO+1NC See chapter 11       |
| Min. force      |       | 15 Ncm (25 Ncm)              |                                      | 9 Ncm (25 Ncm)                       |
| Travel diagrams |       | chap. 4.1 - page 2 - group 4 |                                      | chap. 4.1 - page 2 - group 4         |

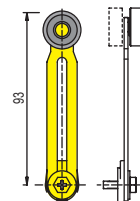
### Loose actuators

**IMPORTANT:** These loose actuators can be used with items of series FD, FP, FL, FC only.

|                        |                            |                            |                        |                            |                            |
|------------------------|----------------------------|----------------------------|------------------------|----------------------------|----------------------------|
|                        | With regular head only<br> | With regular head only<br> |                        | With regular head only<br> | With regular head only<br> |
| <b>VF L31</b> ⊕ 10 pcs | <b>VF L32</b> 10 pcs       | <b>VF L33</b> 10 pcs       | <b>VF L34</b> 10 pcs   | <b>VF L35</b> ⊕* 10 pcs    | <b>VF L36</b> 10 pcs       |
|                        |                            | With regular head only<br> |                        |                            |                            |
| <b>VF L51</b> ⊕ 10 pcs | <b>VF L52</b> ⊕ 10 pcs     | <b>VF L56</b> ⊕ 10 pcs     | <b>VF L57</b> ⊕ 10 pcs |                            |                            |

Quantities near the symbol indicate the number of pieces in each pack. Only orders for quantities multiple of the packs are accepted.

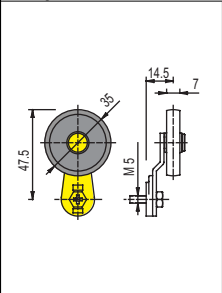
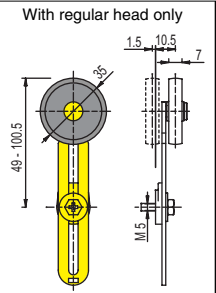
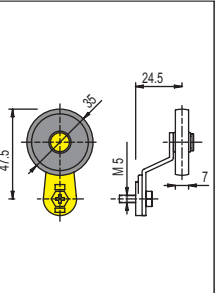
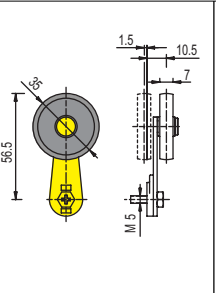
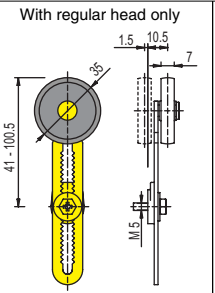
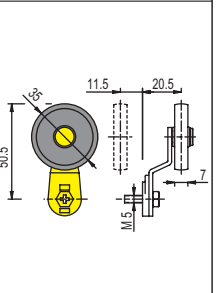






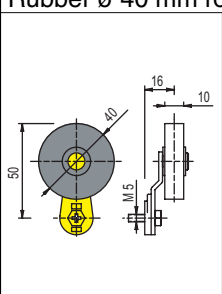
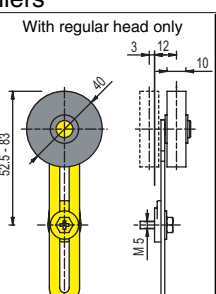
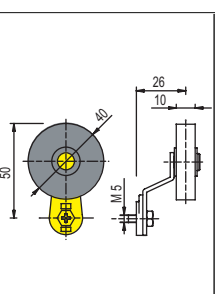
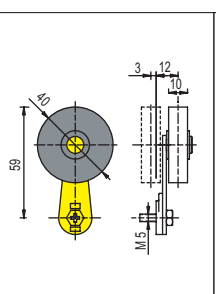
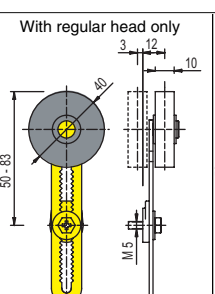
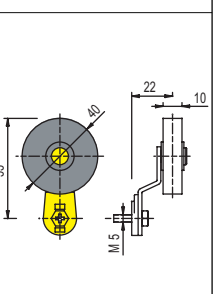






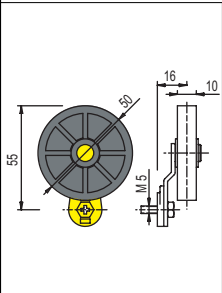
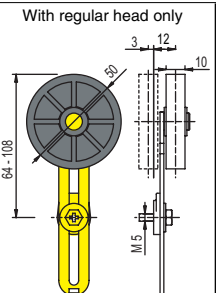
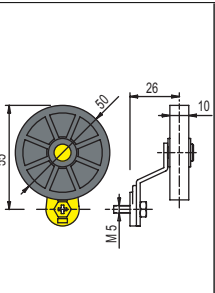
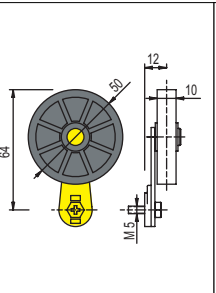
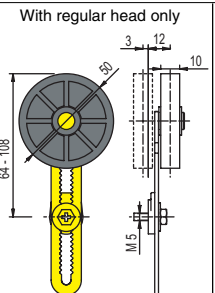
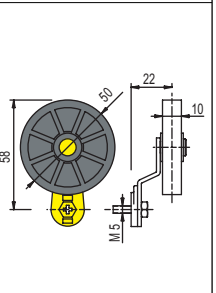






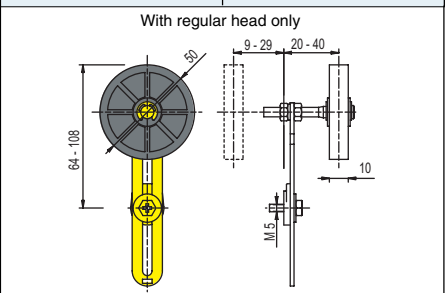
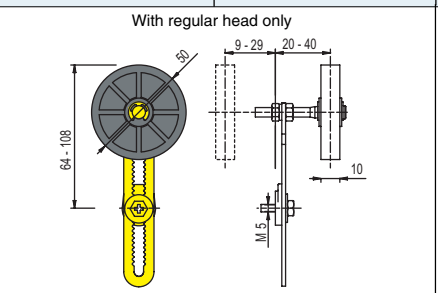


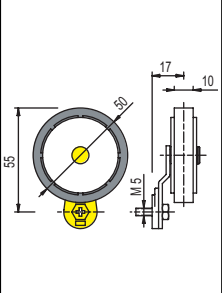
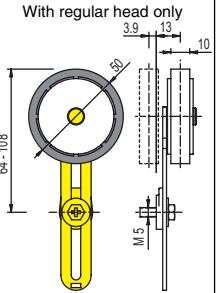
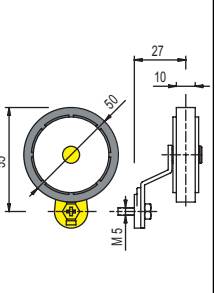
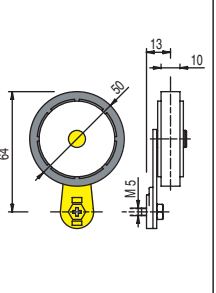
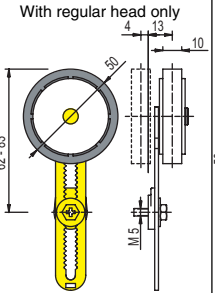
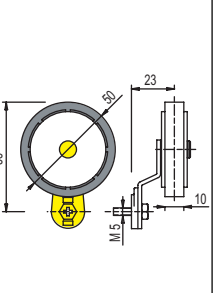






(\*) Actuators VF L35-1, VF L35-2, VF L35-R5, VF L35-3, VF L35-4, VF L35-R6 suits to safety applications only if adjusted to its max. length, as you can see in the figure on the right.



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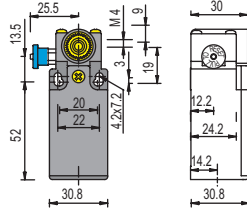
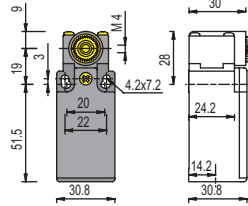
## Special loose actuators

**IMPORTANT:** These loose actuators can be used with items of series FD, FP, FL, FC only.

| Polymer $\varnothing$ 35 mm rollers  |  |  |  |   |  |
|--|--|--|--|---|--|
|                     | With regular head only<br>    |                     |                      | With regular head only<br>   |                     |
| VF L31-2  10 pcs    | VF L35-2  10 pcs              | VF L51-2  10 pcs    | VF L52-2  10 pcs    | VF L56-2  10 pcs             | VF L57-2  10 pcs    |
| Rubber $\varnothing$ 40 mm rollers   |  |  |  |   |  |
|                     | With regular head only<br>    |                     |                      | With regular head only<br>   |                     |
| VF L31-R5  10 pcs   | VF L35-R5  10 pcs             | VF L51-R5  10 pcs   | VF L52-R5  10 pcs   | VF L56-R5  10 pcs            | VF L57-R5  10 pcs   |
| Rubber $\varnothing$ 50 mm rollers   |  |  |  |   |  |
|                   | With regular head only<br>  |                   |                    | With regular head only<br> |                   |
| VF L31-3  10 pcs  | VF L35-3  10 pcs            | VF L51-3  10 pcs  | VF L52-3  10 pcs  | VF L56-3  10 pcs           | VF L57-3  10 pcs  |
|                   | With regular head only<br> |  |  |   |  |
| VF L35-4  10 pcs  |  | VF L56-4  10 pcs  |  |   |  |
| Rubber $\varnothing$ 50 wheel with metal aligning washers  |  |  |  |   |  |
|                   | With regular head only<br>  |                   |                    | With regular head only<br> |                   |
| VF L31-R6  10 pcs | VF L35-R6  10 pcs           | VF L51-R6  10 pcs | VF L52-R6  10 pcs | VF L56-R6  10 pcs          | VF L57-R6  10 pcs |

**Position switches without actuator**

with reset



**IMPORTANT:**

**For safety applications:**

please join only switches and actuators marked with symbol

For more information about safety applications see chapter 19.

Contact block

|                 |       |                               |               |                              |           |                             |
|-----------------|-------|-------------------------------|---------------|------------------------------|-----------|-----------------------------|
| 5               | Zb    | snap action                   | <b>FR 538</b> | 1NO+1NC                      | FR 538-W  | 1NO+1NC                     |
| 6               | Zb    | slow action                   | FR 638        | 1NO+1NC                      | FR 638-W  | 1NO+1NC                     |
| 7               | Zb    | slow action                   | FR 738        | 1NO+1NC Overlapped Contacts  | FR 738-W  | 1NO+1NC Overlapped Contacts |
| 9               | Y+Y   | slow action                   | FR 938        | 2NC                          | FR 938-W  | 2NC                         |
| 10              | X+X   | slow action                   | FR 1038       | 2NO                          | FR 1038-W | 2NO                         |
| 11              | Y+Y   | snap action                   | FR 1138       | 2NC                          | FR 1138-W | 2NC                         |
| 14              | Y+Y   | slow action                   | FR 1438       | 2NC Shifted Contacts         | FR 1438-W | 2NC Shifted Contacts        |
| 15              | X+X   | slow action                   | FR 1538       | 2NO Shifted Contacts         | FR 1538-W | 2NO Shifted Contacts        |
| 16              | Y+Y   | slow action                   | FR 1638       | 2NC Independent Contacts     |           |                             |
| 20              | Y+Y+X | slow action                   | FR 2038       | 2NC+1NO                      | FR 2038-W | 2NC+1NO                     |
| 21              | Y+Y+Y | slow action                   | FR 2138       | 3NC                          | FR 2138-W | 3NC                         |
| 22              | Y+X+X | slow action                   | FR 2238       | 1NC+2NO                      | FR 2238-W | 1NC+2NO                     |
| 2               | Za+Za | snap action                   | FR 238        | 1NO-1NC+1NO-1NC              |           |                             |
| E1              | PNP   | electronic                    | FR E138       | 1NO+1NC See chapter 11       |           |                             |
| Min. force      |       | 9,8 Ncm (15 Ncm)              |               | 9,8 Ncm (15 Ncm)             |           |                             |
| Travel diagrams |       | chap. 5.1 - page. 2 - group 5 |               | chap. 14 - page. 4 - group 4 |           |                             |

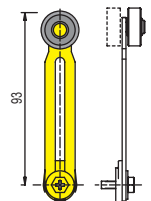
**Loose actuators**

**IMPORTANT:** These loose actuators can be used with items of series FR, FM, FX, FZ, FK only.

|                       |                       |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                       |                       |                       |                       |                       |                       |
| <b>VF LE30</b> 10 pcs | <b>VF LE31</b> 10 pcs | <b>VF LE33</b> 10 pcs | <b>VF LE34</b> 10 pcs | <b>VF LE50</b> 10 pcs | <b>VF LE51</b> 10 pcs |
|                       |                       |                       |                       |                       |                       |
| <b>VF LE52</b> 10 pcs | <b>VF LE54</b> 10 pcs | <b>VF LE55</b> 10 pcs | <b>VF LE56</b> 10 pcs | <b>VF LE57</b> 10 pcs | <b>VF LE69</b> 10 pcs |

Quantities near the symbol indicate the number of pieces in each pack. Only orders for quantities multiple of the packs are accepted.

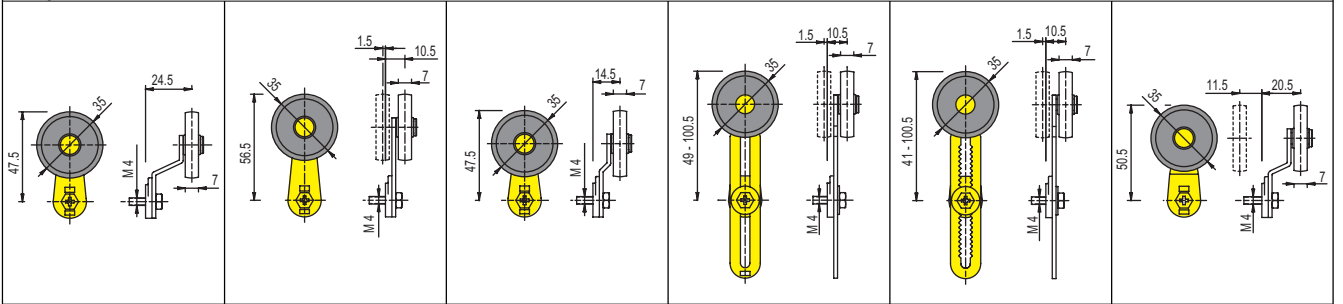
(\*) Actuators VF LE55-1, VF LE55-2, VF LE55-R5, VF LE55-3, VF LE55-4, VF LE55-R6 suits to safety applications only if adjusted to its max. length, as you can see in the figure on the right.



## Special loose actuators

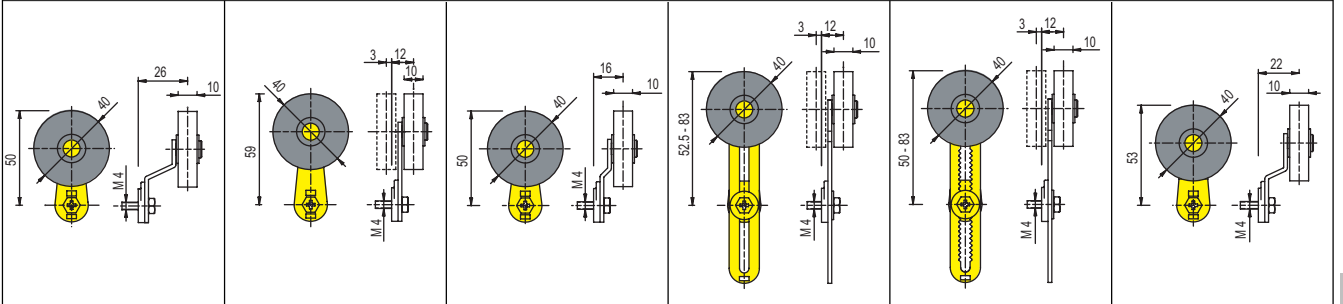
**IMPORTANT:** These loose actuators can be used with items of series FR, FM, FX, FZ and FK only.

### Polymer $\varnothing$ 35 mm rollers



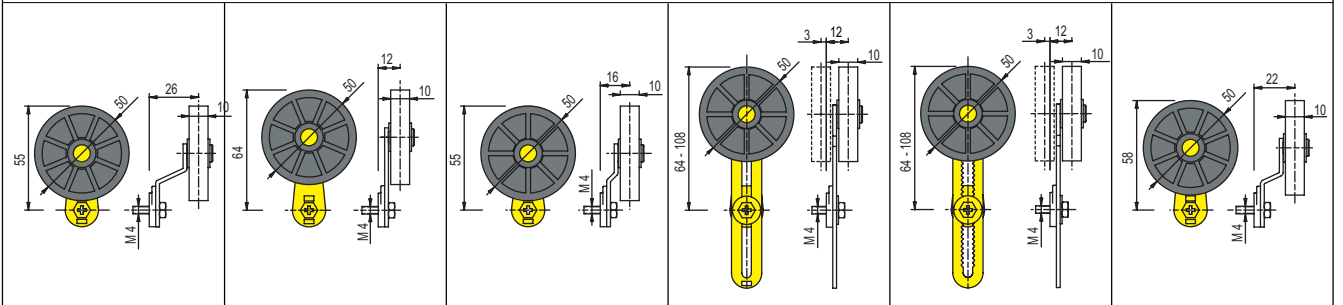
VF LE51-2  $\rightarrow$  10 pcs VF LE52-2  $\rightarrow$  10 pcs VF LE54-2  $\rightarrow$  10 pcs VF LE55-2  $\rightarrow$  10 pcs VF LE56-2  $\rightarrow$  10 pcs VF LE57-2  $\rightarrow$  10 pcs

### Rubber $\varnothing$ 40 mm rollers

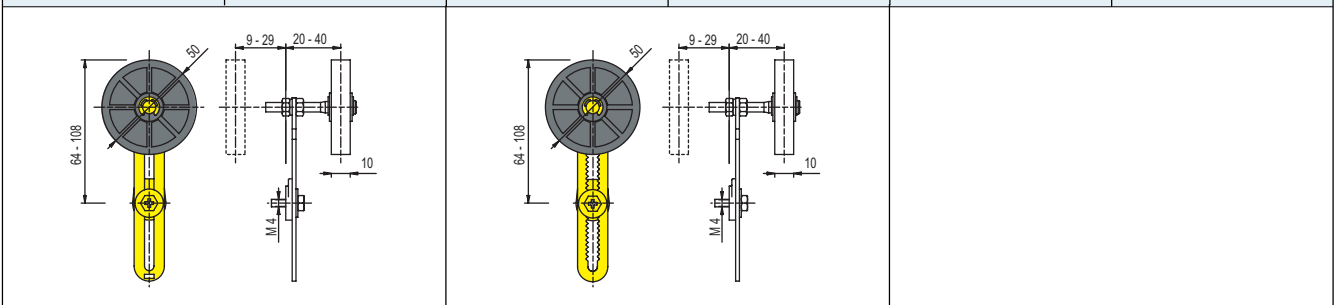


VF LE51-R5  $\rightarrow$  10 pcs VF LE52-R5  $\rightarrow$  10 pcs VF LE54-R5  $\rightarrow$  10 pcs VF LE55-R5  $\rightarrow$  10 pcs VF LE56-R5  $\rightarrow$  10 pcs VF LE57-R5  $\rightarrow$  10 pcs

### Rubber $\varnothing$ 50 mm rollers



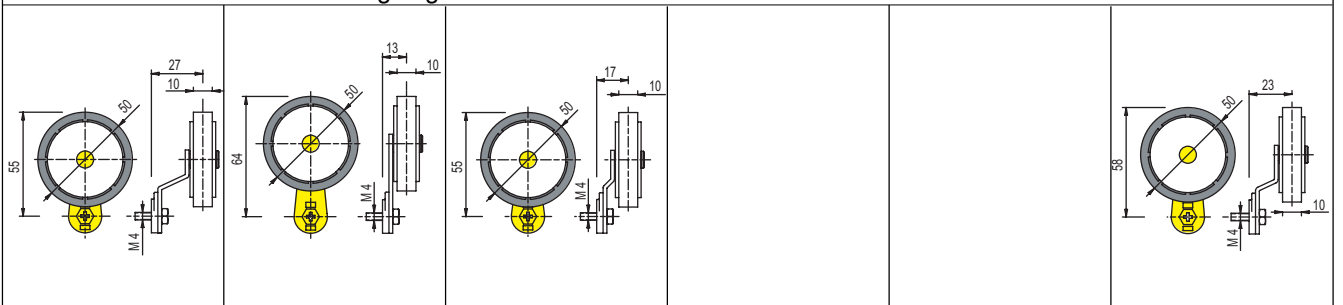
VF LE51-3  $\rightarrow$  10 pcs VF LE52-3  $\rightarrow$  10 pcs VF LE54-3  $\rightarrow$  10 pcs VF LE55-3  $\rightarrow$  10 pcs VF LE56-3  $\rightarrow$  10 pcs VF LE57-3  $\rightarrow$  10 pcs



VF LE55-4  $\rightarrow$  10 pcs

VF LE56-4  $\rightarrow$  10 pcs

### Rubber $\varnothing$ 50 wheel with metal aligning washers



VF LE51-R6  $\rightarrow$  10 pcs VF LE52-R6  $\rightarrow$  10 pcs VF LE54-R6  $\rightarrow$  10 pcs

VF LE57-R6  $\rightarrow$  10 pcs





## Description and technical data

Safety switch designed for over-speed devices where a high sensibility and a low actuating force are required .

Operation: the actuator of the switch have to be pressed till the tripping point then the actuator snaps to the end of the stroke, up to 6 mm.

The reset is obtained powering a solenoid installed inside the switch.

### Housing

Made of polymer glass-reinforced, self-extinguishing, shock proof thermo-plastic resin and with double insulation

One conduit entry

Protection degree: IP66

### General data

Ambient temperature: from -25°C a +60°C

Max operating frequency: 171 operations cycles<sup>1</sup>/hour

Mechanical endurance: 100.000 of operations cycles<sup>1</sup>

Max. speed: 0,5 m/s

(1) A operation cycle is equivalent to two movements, one for tripping and one for reset the switch.

### Cross section of the conductors (flexible lead wire)

Contact blocks 11, 17: min. 1 x 0,5 mm<sup>2</sup> (1 x AWG 20)

max. 2 x 2,5 mm<sup>2</sup> (2 x AWG 14)

### Conforms to the standards:

IEC 947-5-1, IEC 337-1, EN 60947-5-1, CEI EN 60947-5-1, CEI 17-45, IEC 204-1, EN 60204-1, CEI 44-5, EN 292, IEC 529, EN 60529, CEI 70-1, EN 50081-1, EN 50082-2, CENELEC EN 50013.

### Complying with the requirements requested by:

Low Voltage Directive 73/23/EEC and subsequent modifications and completions, Machinery Directive 98/37/EEC, Electromagnetic Compatibility 89/336/EEC and subsequent modifications and completions.

### Positive contact opening complying with the standards:

IEC 947-5-1, EN 60947-5-1, CEI EN 60947-5-1, VDE 0660-206.

## Markings and quality marks:



### Solenoid

Solenoid duty cycle: 5% ED  
 Steady-state solenoid power: 100 VA  
 Solenoid protection: fuse 2 A  
 Power supply time: 1 s max  
 Pause between two operation: 20 s min

## Installation for safety applications:

Use only switches with the symbol ⊕ on their sides. Safety circuit must always be connected with the **NC contacts** (normally closed contacts: 11-12, 21-22 or 31-32) as stated in the standard CEI EN 60947-5-1, encl. K, par. 2 . **The switch must be actuated with the minimum positive opening travel** shown in the travels diagrams. **The switch must be actuated with the minimum positive opening force**, shown in brackets, underneath each article, near the value of the min. force. For a correct installation of these articles see examples on chapter 19. z

## Electrical data

without connectors

Thermal current (Ith): 10 A  
 Rated insulation voltage (Ui): 500 VAC 600 VDC  
 Protection against short circuits: fuse 10 A 500V type aM  
 Pollution degree: 3

## Utilization categories

Alternate current: AC15 (50÷60 Hz)  
 Ue (V) 250 400 500  
 Ie (A) 6 4 1  
 Direct current: DC13  
 Ue (V) 24 125 250  
 Ie (A) 6 1,1 0,4

## How to order

# FT 1101E230-M2

### Housing

**FT** polymer housing, three conduit entries

### Contact block

**11** 2NC, snap action

**17** 1NC, snap action

### Working principle

**E** Reset through electrical pulse

### Threaded conduit entry

PG 13,5 (standard)

**M2** M20x1,5

### Solenoid supply voltage

**230** 230 VAC (-15% ÷ +10%)  
solenoid duty cycle 5% ED

## Accessories

Further accessories: **signal lamps, cable glands, adapters, connectors and protection caps**, please see chapter 16

7

## On request

- Special versions for -40 °C use.
- Custom-made special versions.

FT series  
polymer housing

|               |                  |                  |  |
|---------------|------------------|------------------|--|
|               |                  |                  |  |
| Contact block |                  |                  |  |
| <b>11</b>     | FT 1101E230  2NC |                  |  |
| Y+Y           |                  |                  |  |
| <b>17</b>     |                  | FT 1701E230  1NC |  |
| Y             |                  |                  |  |
| Max. speed    | 0,5 m/s          | 0,5 m/s          |  |
| Min. force    | 3,1 N (14,1 N)   | 1,5 N (12,5 N)   |  |