

### Main data

- Polymer housing, with one or two conduit entries
- Protection degree IP67
- M12 assembled connector versions
- In conformity with EN 81

### Markings and quality marks:



Approval IMQ:	EG610
Approval IMQ-UNI:	CA50.00662
Approval UL:	E131787
Approval CCC:	2007010305230013
Approval EAC:	RU C-IT DM94.B.01024

### Technical data

#### Housing

Made of glass-reinforced polymer, self-extinguishing, shock-proof thermoplastic resin and with double insulation  $\square$

FR series one threaded conduit entry M20x1.5 (standard)

FX series two threaded conduit entries M20x1.5 (standard)

Protection degree: IP67 according to EN 60529 with cable gland having equal or higher protection degree

#### General data

Ambient temperature: from -25°C to +80°C

Version for operation in ambient temperature from -40°C to +80° C on request

Max operating frequency: 3600 operations cycles<sup>1</sup>/hour

Mechanical endurance: 1 million operations cycles<sup>1</sup>

Assembling position: any

Driving torque for installation: see page 123

(1) One operation cycle means two movements, one to close and one to open contacts, as foreseen by EN 60947-5-1 standard.

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

Contact blocks 5:	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)

#### In conformity with standards:

IEC 60947-5-1, EN 60947-5-1, EN 60947-1, EN 50047, IEC 60204-1, EN 60204-1, EN ISO 14119, EN ISO 12100, IEC 60529, EN 60529, EN 81-20, EN 81-50, UL 508, CSA 22.2 No.14

#### Approvals:

IEC 60947-5-1, UL 508, CSA 22.2 No.14, GB14048.5-2001.

#### Electrical endurance

Type of load:	20 single tube neon lamp 36 W / 230 V (connected in parallel)
Frequency:	10 s ON / 10 s OFF
Max number of cycles:	100,000

#### In conformity with requirements requested by:

Low Voltage Directive 2006/95/EC, Machinery Directive 2006/42/EC and EMC Directive 2014/30/EC.

### Electrical data

Thermal current ( $I_{th}$ ):	10 A
Rated insulation voltage ( $U_i$ ):	500 Vac 600 Vdc 400 Vac 500 Vdc for contacts block 11, 12
Rated impulse withstand voltage ( $U_{imp}$ ):	6 kV
Conditional short circuit current:	1000 A according to EN 60947-5-1
Protection against short circuits:	fuse 10 A 500 V type aM
Pollution degree:	3

### Utilization categories

Alternate current: AC15 (50...60 Hz)			
$U_e$ (V)	250	400	500
$I_e$ (A)	6	4	1
Direct current: DC13			
$U_e$ (V)	24	125	250
$I_e$ (A)	6	1.1	0.4

### Data type approved by IMQ

Rated insulation voltage ( $U_i$ ): 500 Vac  
400 Vac for contacts block 11, 12

Thermal current ( $I_{th}$ ): 10 A

Protection against short circuits: fuse 10 A 500 V type aM

Rated impulse withstand voltage ( $U_{imp}$ ): 6 kV

Protection degree: IP67

MV terminals (screw clamps)

Pollution degree 3

Utilization category: AC15

Operation voltage ( $U_e$ ): 400 Vac (50 Hz)

Operation current ( $I_e$ ): 3 A

Forms of the contact element: Zb, Y+Y, X+X

In conformity with standards: EN 60947-1, EN 60947-5-1, fundamental requirements of the Low Voltage Directive 2006/95/CE.

### Data type approved by UL

Utilization categories Q300 (69 VA, 125-250 Vdc)  
A600 (720 VA, 120-600 Vac)

Data of the housing type 1, 4X "indoor use only"; 12, 13

For all contact blocks use 60 or 75 °C copper (Cu) conductor and wire size No. 12-14 AWG. Terminal tightening torque of 7.1 lb in (0.8 Nm).

In conformity with standard: UL 508

Please contact our technical service for the list of approved products.

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**Introduction**

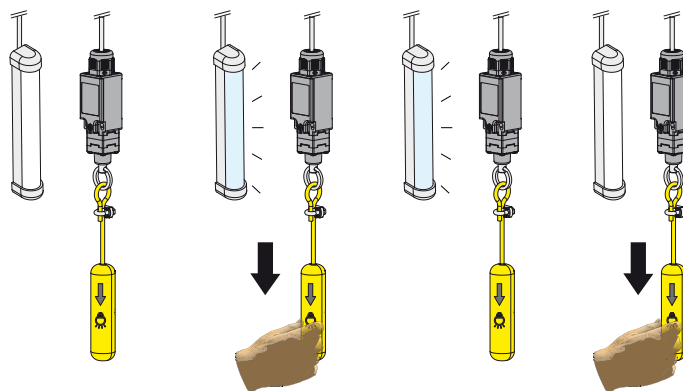
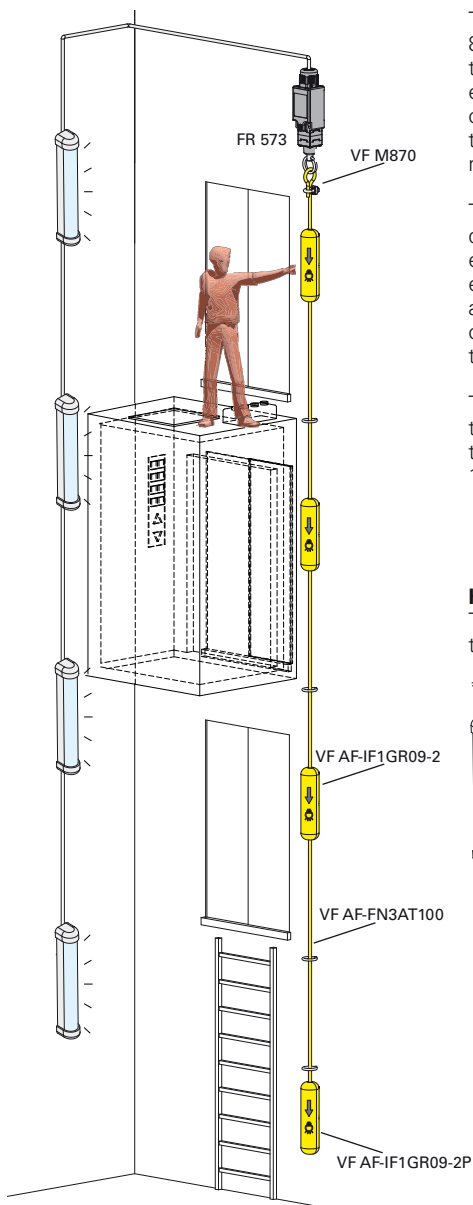
The FR 573 switch has been specifically studied to control the lift shaft lights. The norm EN 81 paragraphs 6.4.9, 13.6.3.2, 6.3.7 state the necessity to have a light switching point next to the working area access and in the machines room. To comply with this prescription usually at every floor there are installed lightning points which control a step relay with its considerable costs due to the number of the control points and their wiring. The switch FR 573 itself allows to control the shaft lights through its own wiring, without any need of different lightning points, relays or wiring.

The switch is fixed to the superior part of the lift shaft and it's connected to a rope which goes down in the shaft next to the cabin. The rope has to be guided through rings in order to avoid the excessive oscillation caused by the cabin windage. At regular intervals along the rope, usually at every floor, an indicator is fixed to make the rope and its function clearly visible. The last indicator at the end of the rope has a weight inside to keep the rope tight. This way the operator on the cabin roof or in any position along the shaft has the possibility to operate the switch by pulling the practical indicator or the rope itself.

The switch FR 573 has a stable position function, which means that the first operation closes the contacts; the following one opens them and so on. This way the switch can totally substitute also the step relay. The switch has been tested with twenty 36 W neon lamps exceeding 100.000 operations.

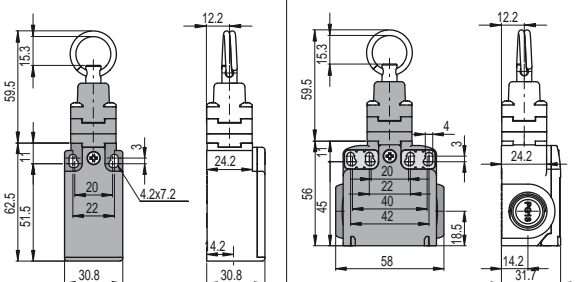
**How it functions:**

To switch the shaft light on it is sufficient to pull the rope; to switch it off just repeat the operation.



**Dimensional drawings**

Contacts type:  
**R** = snap action



Contact blocks

5	<b>R</b>	FR 573-M2	1NO+1NC	FX 573-M2	1NO+1NC
11	<b>R</b>	FR 1173-M2	2NC	FX 1173-M2	2NC
12	<b>R</b>	FR 1273-M2	2NO	FX 1273-M2	2NO
Max speed		0.5 m/s		0.5 m/s	
Min. force		initial 20 N - final 40 N		initial 20 N - final 40 N	

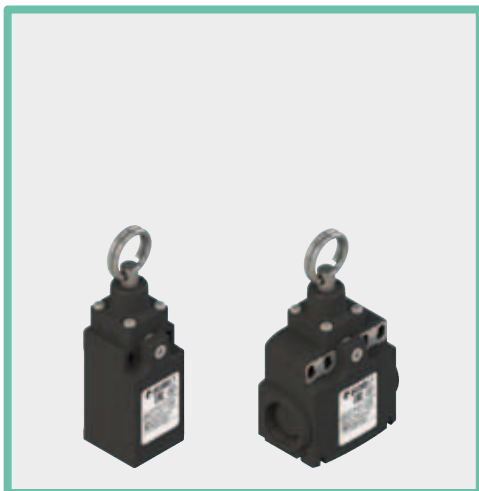
**Accessories**

Article	Description
VF AF-IF1GR09-2P	End clamp for rope fixing
VF AF-IF1GR09-2	Intermediate rope function indicators
	Rope function indicators.
Article	Description
VF AF-FN3AT100	100 m rope
	Yellow/transparent rope roll, Ø 3 mm, with a brass-plated steel core and a transparent PVC coating.
Article	Description
VF M870	Rope extremity clamp

Accessories See page 119

→ The 2D/3D files are available at [www.pizzato.com](http://www.pizzato.com)

Items with code on the **green** background are available in stock



### Main data

- Polymer housing, with one or two conduit entries
- Protection degree IP67
- M12 assembled connector versions
- Silver contacts gold plated versions

### Markings and quality marks:



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 FX series two threaded conduit entries: M20x1.5 (standard)  
 Protection degree: IP67 according to EN 60529 with cable gland having equal or higher protection degree

#### General data

Ambient temperature: from -25°C to +80°C  
 Version for operation in ambient temperature from -40°C to +80°C on request  
 Max operating frequency: 3600 operations cycles/hour  
 Mechanical endurance: 20 million operations cycles<sup>1</sup>  
 Assembling position: any  
 Driving torque for installation: see page 123  
 (1) One operation cycle means two movements, one to close and one to open contacts, as foreseen by EN 60947-5-1 standard.

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

Contact blocks 5, 9:  
 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)

#### In conformity with standards:

IEC 60947-5-1, EN 60947-5-1, EN 60947-1, EN 50047, IEC 60204-1, EN 60204-1, EN ISO 14119, EN ISO 12100, IEC 60529, EN 60529, EN 81-20, EN 81-50, UL 508, CSA 22.2 No.14

#### Approvals:

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#### In conformity with requirements requested by:

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### Electrical data

Thermal current ( $I_{th}$ ): 10 A  
 Rated insulation voltage (U<sub>i</sub>): 500 Vac 600 Vdc  
 Rated impulse withstand voltage (U<sub>imp</sub>): 6 kV  
 Conditional short circuit current: 1000 A according to EN 60947-5-1  
 Protection against short circuits: fuse 10 A 500 V type aM  
 Pollution degree: 3

### Utilization categories

Alternate current: AC15 (50...60 Hz)  
 U<sub>e</sub> (V) 250 400 500  
 I<sub>e</sub> (A) 6 4 1  
 Direct current: DC13  
 U<sub>e</sub> (V) 24 125 250  
 I<sub>e</sub> (A) 6 1.1 0.4

### Data type approved by IMQ

Rated insulation voltage (U<sub>i</sub>): 500 Vac  
 Thermal current (I<sub>th</sub>): 10 A  
 Protection against short circuits: fuse 10 A 500 V type aM  
 Rated impulse withstand voltage (U<sub>imp</sub>): 6 kV  
 Protection degree: IP67  
 MV terminals (screw clamps)  
 Pollution degree 3  
 Utilization category: AC15  
 Operation voltage (U<sub>e</sub>): 400 Vac (50 Hz)  
 Operation current (I<sub>e</sub>): 3 A  
 Forms of the contact element: Zb, Y+Y

In conformity with standards: EN 60947-1, EN 60947-5-1, fundamental requirements of the Low Voltage Directive 2006/95/CE.

### Data type approved by UL

Utilization categories Q300 (69 VA, 125-250 Vdc)  
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 Data of the housing type 1, 4X "indoor use only"; 12, 13  
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 In conformity with standard: UL 508

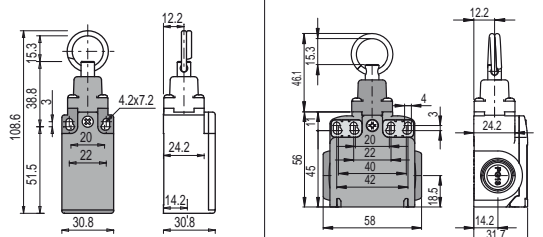
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## Dimensional drawings

Contacts type:


**R** = snap action  
**L** = slow action




Contact blocks

5	<b>R</b>	FR 576-M2	1NO+1NC	FX 576-M2	1NO+1NC
9	<b>L</b>	FR 976-M2	2NO	FX 976-M2	2NO
Max speed		0.5 m/s		0.5 m/s	
Min. force		initial 20 N - final 40 N		initial 20 N - final 40 N	

## Accessories

Article	Description
VF AF-IF1GR09-2P	End clamp for rope fixing
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	Rope function indicators.

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	Yellow/transparent rope roll, Ø 3 mm, with a brass-plated steel core and a transparent PVC coating.

Article	Description
<b>VF M870</b>	Rope extremity clamp
