

### Main features

- Technopolymer housing, from one to two conduit entries
- Protection degree IP67
- Versions with assembled M12 connector
- Compliant with EN 81

### Quality marks:



IMQ approval:	EG610
UL approval:	E131787
CCC approval:	2007010305230013
EAC approval:	RU C-IT.YT03.B.00035/19

### Technical data

#### Housing

Housing made of glass fibre reinforced technopolymer, self-extinguishing, shock-proof and with double insulation:

FR series, one conduit entry:	M20x1.5 (standard)
FX series, two knock-out threaded conduit entries:	M20x1.5 (standard)
Protection degree acc. to EN 60529:	IP67 with cable gland of equal or higher protection degree

#### General data

Ambient temperature:	-25°C ... +80°C
Version for operation at ambient temperatures from -40°C ... +80°C on request	
Max. operating frequency:	3600 operating cycles/hour
Mechanical endurance:	1 million operating cycles
Mounting position:	any
Tightening torques for installation:	see page 141
Wire cross-sections and wire stripping lengths:	see page 153

#### Electrical endurance

Load type:	20 single-tube neon lamps
	36 W / 230 V (connected in parallel)
Frequency:	10 s ON / 10 s OFF
Maximum number of cycles:	100.000

#### In compliance 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 IEC 63000, 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, GB/T14048.5-2017.

#### Compliance with the requirements of:

Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU, Lift Directive 2014/33/EU, RoHS Directive 2011/65/EU.

**⚠ If not expressly indicated in this chapter, for correct installation and utilization of all articles see the instructions given on pages 139 to 146.**

Electrical data		Utilization category
Thermal current ( $I_{th}$ ):	10 A	Alternating current: AC15 (50÷60 Hz)
Rated insulation voltage ( $U_i$ ):	500 Vac 600 Vdc	$U_e$ (V) 250 400 500
	400 Vac 500 Vdc (contact blocks 11, 12)	$I_e$ (A) 6 4 1
Rated impulse withstand voltage ( $U_{imp}$ ):	6 kV	Direct current: DC13
Conditional short circuit current:	1000 A acc. to EN 60947-5-1	$U_e$ (V) 24 125 250
Protection against short circuits:	type aM fuse 10 A 500 V	$I_e$ (A) 3 0.55 0.3
Pollution degree:	3	

### Features approved by IMQ

Rated insulation voltage ( $U_i$ ):	500 Vac 400 Vac (for contact blocks 11, 12)
Conventional free air thermal current ( $I_{th}$ ):	10 A
Protection against short circuits:	type aM fuse 10 A 500 V
Rated impulse withstand voltage ( $U_{imp}$ ):	6 kV
Protection degree of the housing:	IP67
MV terminals (screw terminals)	
Pollution degree:	3
Utilization category:	AC15
Operating voltage ( $U_e$ ):	400 Vac (50 Hz)
Operating current ( $I_e$ ):	3 A
Forms of the contact element:	Zb, Y+Y, X+X
In compliance with standards:	EN 60947-1, EN 60947-5-1, fundamental requirements of the Low Voltage Directive 2014/35/EU

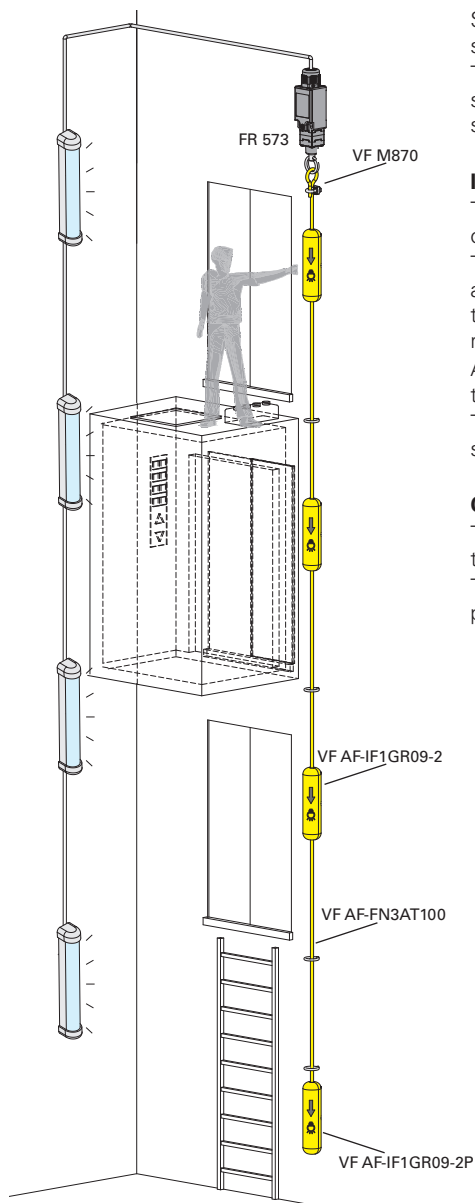
Please contact our technical department for the list of approved products.

### Features approved by UL

Electrical Ratings:	Q300 pilot duty (69 VA, 125-250 V dc) A600 pilot duty (720 VA, 120-600 V ac)
Environmental Ratings:	Types 1, 4X, 12, 13
For all contact blocks use 60 or 75°C copper (Cu) conductors, rigid or flexible, wire size 12, 14 AWG. Tightening torque for terminal screws of 7.1 lb in (0.8 Nm).	
The hub is to be connected to the conduit before the hub is connected to the enclosure.	

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## Introduction



Standard EN 81-20, paragraph 5.2.1.5, details the requirement for switches to illuminate the lift shaft, close to each access point, and in machinery spaces.

The FR 573 switch has been designed specifically to operate the lights in the lift shaft, and, as a single unit with a single cabling, allows this requirement to be met without having to install light switches and cabling separately on each floor.

### Installation:

The installation is extremely simple: the switch is fixed in the upper part of the lift shaft and it is operated by means of a rope that runs through the entire shaft.

The relevant indicators of the rope's function – placed at regular intervals on each floor – also act as convenient handles. In this way, an operator on the cabin roof, or at any position throughout the lift shaft, is able to actuate the switch by simply pulling the practical indicator device, or the rope itself.

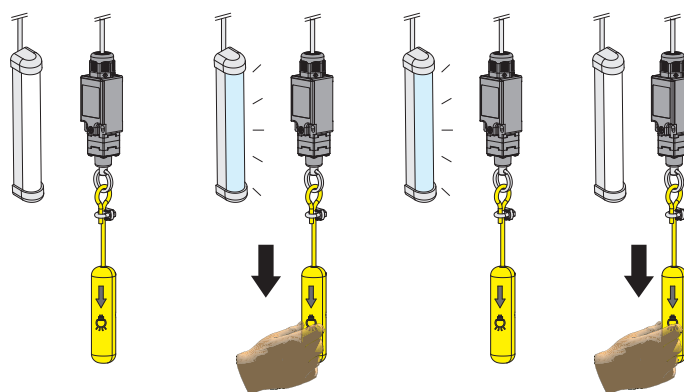
A special function indicator with weights is installed at the end of the rope, in order to keep it taut.

The maximum recommended rope length is 50 metres. For longer lengths, please contact our sales office.

### Operation:

The FR 573 switch retains its position after actuation. This means that the first actuation closes the contacts, the next actuation opens them, and so on.

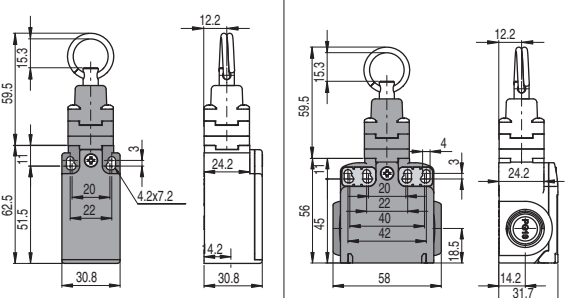
To switch on the light in the lift shaft it is sufficient to pull the rope. To switch the light off, simply pull the rope again.



## Dimensional drawings

Contact 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	2NO	FX 1173-M2	2NO
12	<b>R</b>	FR 1273-M2	2NC	FX 1273-M2	2NC
Max. speed		0.5 m/s		0.5 m/s	
Actuating force		initial 20 N - final 40 N		initial 20 N - final 40 N	

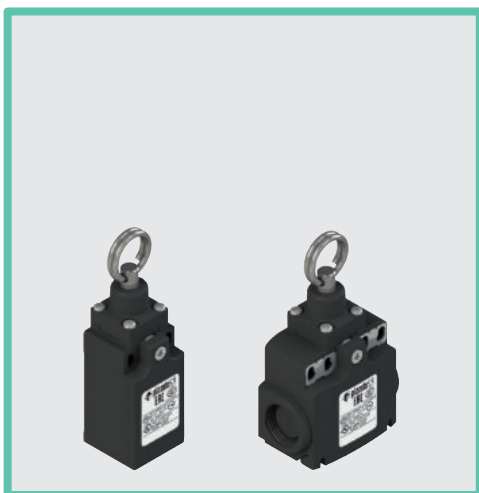
## Accessories

Article	Description
VF AF-IF1GR09-2P	End indicator with internal stabilising weight
VF AF-IF1GR09-2	Intermediate rope function indicators
	Rope function indicator. Tightening torque of fastening screws: 0.8 ... 1.0 Nm.
Article	Description
VF AF-FN3AT100	100 m rope
	Yellow/transparent rope coil, Ø 3 mm with brass-plated steel core and PVC coating.
Article	Description
VF M870	Rope end clamp

All values in the drawings are in mm

Accessories See page 135

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



### Main features

- Technopolymer housing, from one to two conduit entries
- Protection degree IP67
- Versions with assembled M12 connector
- Versions with gold-plated silver contacts

### Quality marks:



IMQ approval:	EG610
UL approval:	E131787
CCC approval:	2007010305230013
EAC approval:	RU C-IT.YT03.B.00035/19

### Technical data

#### Housing

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FR series, one conduit entry: M20x1.5 (standard)

FX series, two knock-out threaded conduit entries: M20x1.5 (standard)

Protection degree: IP67 acc. to EN 60529 with cable gland of equal or higher protection degree

#### General data

Ambient temperature: -25°C ... +80°C

Version for operation at ambient temperatures from -40°C ... +80°C on request

Max. operating frequency: 3600 operating cycles/hour

Mechanical endurance: 20 million operating cycles

Mounting position: any

Tightening torques for installation: see page 141

Wire cross-sections and wire stripping lengths: see page 153

#### In compliance 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 IEC 63000, EN 81-20, EN 81-50, UL 508, CSA 22.2 No.14.

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Electrical data		Utilization category
Thermal current ( $I_{th}$ ):	10 A	Alternating current: AC15 (50-60 Hz)
Rated insulation voltage (U):	500 Vac 600 Vdc	$U_e$ (V) 250 400 500
Rated impulse withstand voltage ( $U_{imp}$ ):	6 kV	$I_e$ (A) 6 4 1
Conditional short circuit current:	1000 A acc. to EN 60947-5-1	Direct current: DC13
Protection against short circuits:	type aM fuse 10 A 500 V	$U_e$ (V) 24 125 250
Pollution degree:	3	$I_e$ (A) 3 0.55 0.3

### Features approved by IMQ

Rated insulation voltage (U):	500 Vac
Conventional free air thermal current ( $I_{th}$ ):	10 A
Protection against short circuits:	type aM fuse 10 A 500 V
Rated impulse withstand voltage ( $U_{imp}$ ):	6 kV
Protection degree of the housing:	IP67
MV terminals (screw terminals)	
Pollution degree:	3
Utilization category:	AC15
Operating voltage ( $U_o$ ):	400 Vac (50 Hz)
Operating current ( $I_o$ ):	3 A
Forms of the contact element:	Zb, Y+Y
In compliance with standards:	EN 60947-1, EN 60947-5-1, fundamental requirements of the Low Voltage Directive 2014/35/EU

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### Features approved by UL

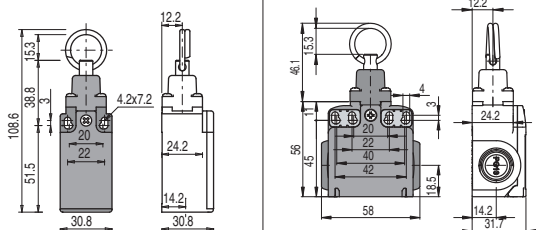
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For all contact blocks use 60 or 75°C copper (Cu) conductors, rigid or flexible, wire size 12, 14 AWG. Tightening torque for terminal screws of 7.1 lb in (0.8 Nm).	
The hub is to be connected to the conduit before the hub is connected to the enclosure.	

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## Dimensional drawings

Contact type:

- R = snap action  
L = slow action



Contact blocks

5	<span style="border: 1px solid black; padding: 0 2px;">R</span>	FR 576-M2	1NO+1NC	FX 576-M2	1NO+1NC
9	<span style="border: 1px solid black; padding: 0 2px;">L</span>	FR 976-M2	2NO	FX 976-M2	2NO
Max. speed		0.5 m/s		0.5 m/s	
Actuating force		initial 20 N - final 40 N		initial 20 N - final 40 N	

## Accessories

Article	Description
VF AF-IF1GR09-2P	End indicator with internal stabilising weight
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Rope function indicator.	
Tightening torque of fastening screws: 0.8 ... 1.0 Nm	



Article	Description
VF AF-FN3AT100	100 m rope
Yellow/transparent rope coil, Ø 3 mm with brass-plated steel core and PVC coating.	

Article	Description
VF M870	Rope end clamp