Safety switches with solenoid and separate actuator

Selection diagram

**ACTUATORS**
- D1D: locked actuator with De-energized solenoid
- D1E: locked actuator with Energized solenoid
- D5D: locked actuator with De-energized solenoid. With lock release device.
- D6D: locked actuator with De-energized solenoid. With anti-panic release push button.
- D7D: locked actuator with De-energized solenoid.

**WORKING PRINCIPLE**
- A: two green LED switched-on by the solenoid power supply
- B: red and green LED freely linkable
- Z: without LED

**CONTACT BLOCKS**

**SIGNALLING**
- LED

**SOLENOID SUPPLY VOLTAGE**
- 24 V AC/DC
- 120 V AC (10% ... +25%)
- 230 V AC (15% ... +10%)
- 12 V DC (15% ... +20%)

**CONDUIT ENTRIES**
- Threaded conduit entries M20 (standard)

**PRODUCT OPTION**
- ACCESSORY SOLD SEPARATELY

**CONTACT BLOCKS**
- M20 (standard)
- M23 metal connector assembled and wired

**K95** 12 poles from bottom
**K96** 12 poles from right
**K97** 12 poles from left

**CONTACT BLOCKS**
- M20: 1NO+1NC 2NC 3NC 1NO+1NC 1NO+2NC
- M23: 1NO+1NC 1NO+1NC 1NC 2NC 1NC
- M23: 1NO+2NC 2NC 1NO+1NC 1NC 2NO+2NC
- M23: 1NO 2NC 2NO 3NC /
Safety switches with solenoid and separate actuator

Application examples on machinery guards

Code structure

<table>
<thead>
<tr>
<th>Article</th>
<th>Options</th>
<th>Integrated contact blocks</th>
<th>Preinstalled connectors</th>
<th>Actuators</th>
<th>Release button length</th>
<th>Signalling LED</th>
</tr>
</thead>
<tbody>
<tr>
<td>FG 60AD1D0A-LP30F20GK95</td>
<td></td>
<td>Solenoid operated</td>
<td>Actuator operated</td>
<td>no connectors (standard)</td>
<td>without actuator</td>
<td>A two green LED switched-on by the solenoid power supply</td>
</tr>
<tr>
<td>60A</td>
<td></td>
<td>1NO+1NC</td>
<td>1NO+1NC</td>
<td>K95</td>
<td>with M23 metal connector assembled and wired, 12 poles from bottom</td>
<td></td>
</tr>
<tr>
<td>60B</td>
<td></td>
<td>2NC</td>
<td>1NO+1NC</td>
<td>K96</td>
<td>with M23 metal connector assembled and wired, 12 poles from right</td>
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</tr>
<tr>
<td>60C</td>
<td></td>
<td>3NC</td>
<td>1NC</td>
<td>K97</td>
<td>with M23 metal connector assembled and wired, 12 poles from left</td>
<td></td>
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<tr>
<td>60D</td>
<td></td>
<td>1NO+1NC</td>
<td>2NC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60E</td>
<td></td>
<td>1NO+2NC</td>
<td>1NC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60F</td>
<td></td>
<td>1NO+2NC</td>
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</tr>
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<td>60G</td>
<td></td>
<td>2NC</td>
<td>2NO</td>
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</tr>
<tr>
<td>60H</td>
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<td>60P</td>
<td></td>
<td>1NO+1NC</td>
<td>1NO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60R</td>
<td></td>
<td>2NO+2NC</td>
<td>/</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Working principle

- D1D: locked actuator with de-energized solenoid
- D1E: locked actuator with energized solenoid
- D5D: locked actuator with de-energized solenoid. With lock release device.
- D6D: locked actuator with de-energized solenoid. With lock release device and anti-panic release push button.
- D7D: locked actuator with de-energized solenoid. With anti-panic release push button.

Solenoid supply voltage

- 0: 24 VAC/DC (-10% ... +25%)
- 1: 120 VAC (-15% ... +10%)
- 2: 230 VAC (-15% ... +10%)
- 3: 12 VDC (-15% ... +20%)

Contact type

- G: silver contacts gold plated 1 µm

Release button length

- LP30: Wall thickness length max 30 mm
- LP40: Wall thickness length max 40 mm
- LP60: Wall thickness length max 60 mm
Safety switches with solenoid and separate actuator

Main features
- Actuator holding force: 2500 N
- 10 contact blocks with 4 poles
- Metal housing, three conduit entries M20
- Protection degree: IP67
- Version with lock release device and emergency release push button
- 4 stainless steel actuators
- Rotating head and devices and not detachable
- Signalling LED
- Working with energized or de-energized solenoid

Markings and quality marks:

Approval UL: E131787

Electrical data

<table>
<thead>
<tr>
<th>without connector</th>
<th>with 12 poles M23 connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal current (Ith):</td>
<td>10 A</td>
</tr>
<tr>
<td>Rated insulation voltage (Ue):</td>
<td>250 V AC, 300 V DC</td>
</tr>
<tr>
<td>Pollution degree:</td>
<td>fuse 10 A 500 V type gG</td>
</tr>
<tr>
<td>Protection against short circuits:</td>
<td>3</td>
</tr>
</tbody>
</table>

Alternate current: AC15 (50...60 Hz)
Ue (V): 250
Ie (A): 5

Direct current: DC13
Ue (V): 24
Ie (A): 6

Ie (A): 1

Thermal current (Ith): 10 A
Rated insulation voltage (Ue): 250 V AC, 300 V DC
Pollution degree: 3

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

In conformity with standards:
- IEC 60947-5-1, EN 60947-5-1, IEC 60204-1, EN 60204-1, EN 1088, EN ISO 12100-1, EN ISO 12100-2, IEC 529, EN 60529, EN 61000-6-2, EN 61000-6-3, NFC 63-140, VDE 0660-200, VDE 0113, CENELEC EN 50013, BG-GS-ET-15.
- UL 508

In conformity with requirements requested by:

In conformity with standards:
- IEC 60947-5-1, EN 60947-5-1, VDE 0660-206.

If not expressly indicated in this chapter, for the right installation and the correct utilization of all articles see requirements indicated from page 6/1 to page 6/8.
Description

These switches are used on machines where the hazardous conditions remain for a while, even after the machines has been switched off, for example because of mechanical inertia of pulleys, saw disks, parts under pressure or with high temperatures. They can also be used when it is necessary to control machine guards allowing the opening of protections only under specific conditions.

Actuator holding force

The strong interlocking system guarantees a maximum actuator holding force of 2500 N.

Actuating regulation zone

This switch has a wide backlash of the actuator into the head (4.5 mm) to avoid that door gaskets keep in traction the actuator on the solenoid. With closed door, check that the actuator doesn't knock straight against the head of the switch; it must be in the adjustment zone (0.5…5 mm).

Rotating heads and devices

The head can be quickly rotated on each of the 4 sides of the switch by unfastening the four fixing screws. Also the lock release device and the release button can be rotated in 90° steps; this enables the switch to assume 32 different configurations.

4 poles contact block

Innovative 4 poles contact block, available in different contacts configurations to monitor the actuator or the solenoid (patented). The contact block is supplied with no-loosing screws and self-lifting plates.

Release device with rotating lock

The auxiliary release device with rotating lock is used to allow the maintenance or the entry into the machinery to authorized personnel only. Rotating the key, will make the same action of the solenoid, that is move solenoid contacts and release the actuator. The device can be rotated allowing the installation of the safety switch inside the machinery and making the release device accessible outside the protection. In this way, the switch is more protected against possible tampering and the external side/surface of the machinery remains pleasant.

Emergency release push button

This device is used when the safety switch controls hazardous areas where operators may physically enter with all their body. The release button, oriented towards inside the machinery, allows the exit of the operator accidentally trapped also in case of possible black-out. Pushing the button, it will be actuated the same function of the auxiliary release device. To reset the switch, restore the button to the initial position. The emergency button can be rotated, is available with different lengths and is fixed to the switch by a screw, so to allow the installation of the switch inside or outside the guards.

Lock release device and emergency push button

This device performs the two above mentioned functions at the same time. Also in this case the device can be rotated and the release button can be ordered with different lengths. The activation of the button has the priority on the lock, that is with the closed lock it is possible to activate the button and unlock the switch. To reset the switch is necessary to restore lock and button to their initial position.

Not detachable head and devices

The head and the release devices can be rotated but they are not detachable to each other. In such a way the switch is safer because the installer do not have to worry about the assembly of various components and there is a lower probability of damages (loss of small parts, dirt penetration, etc.)

Signalling LED type A

In the version with signalling LED type A, two green LED are switched-on directly by the solenoid power supply. Wiring is not necessary.

Signalling LED type B

In the version with signalling LED type B, two LED connection wires are available, one green and one red. Through suitable connections to the contact block, it is possible to control the different states of the switch.
Safety switches with solenoid and separate actuator

Description

Working conditions
The working principle of these safety switches allows three different working states:

- **state A**: with the actuator inserted and blocked by the solenoid
- **state B**: with the actuator inserted but not blocked
- **state C**: with the actuator extracted

All or some of these states may be controlled through the positive opening contacts of the internal contact block. In detail, contact blocks that have electric contacts marked with the symbol of the solenoid (electric contacts marked with the symbol of the actuator (electric contacts marked with the symbol of the actuator (electric contacts marked with the symbol of the actuator (electric contacts marked with the symbol of the actuator (electric contacts marked with the symbol of the actuator (electric contacts marked with the symbol of the actuator are switched between state A and state B, while the electric contacts marked with the symbol of the actuator (electric contacts marked with the symbol of the actuator (electric contacts marked with the symbol of the actuator (electric contacts marked with the symbol of the actuator (electric contacts marked with the symbol of the actuator (electric contacts marked with the symbol of the actuator (electric contacts marked with the symbol of the actuator are switched between state B and state C:

Working principle
It is also possible to choose between two working principles for the actuator locking:

- **Working principle D**: Actuator blocked with de-energized solenoid. Actuator release is obtained by power supply to the solenoid (see example of working cycle steps).
- **Working principle E**: Actuator blocked with energized solenoid. The unlock of the actuator is obtained by power-off to the solenoid. It is advisable to use this version under special conditions because a blackout will allow the immediate opening of the protection.

Product versatility
This series of products includes many technical solutions that result in easier installation and working:

- Four different types of stainless steel actuators, suitable to be fixed in several positions and with insertion radius arc equal to or over 80 mm.
- Swinging head, in 90° steps, with two actuator entries for easy installation of the switch. Heads D5, D6 and D7 are provided with release devices that can be rotated independently to the actuator entry side. All parts of heads are rotating but not detachable from the body, in order to avoid any tampering or wrong assembling during the installation.
- To extract the inserted but not blocked actuator, a 30 N force is necessary, that avoids the guard opening because of vibrations or impacts.
- Extremely heavy mechanical system of actuator locking, able to support traction forces up to 2500 N.
- When actuator is locked, it can still move a little (4,5 mm), to avoid that door gaskets keep in traction the actuator on the solenoid.
- Housing with three conduit entries for an easier installation or connection in series.
- Electronic control of the power supply, which allow a wide tolerance on supply voltage. This technical solution resolves the problems that may derive from not stable power supply (machine distance from main transformers, tension variation between night/day hours), allowing also a low solenoid power consumption and consequently enlarging the working temperatures range of the switch.
- No-losing screws contact blocks, fingers protection, contacts with double interruption, high contact reliability.
- Version with signalling LED connected to the power supply or freely linked by the installer. LED are externally visible through the housing cover.

Release device
Versions with D working principle are supplied with a sealable auxiliary release device used by technicians during the installation or to access the machine in case of block-out.

- **Head D1**: The auxiliary release device is actuated by screwing to the end the safety dowel and rotating the device by 180°.
- **Head D2**: The arrow on the switch cover indicates the auxiliary release device state. After the actuator release, put in the start position and reposition the safety dowel.
- **Head D3**: To avoid improper use of the auxiliary release device during the usual machine working cycle, it has to be sealed with some drops of paint or by lead sealing.

- **Head D5**: The auxiliary release device is composed of a lock with double key supplied on issue.
- **Head D6**: The auxiliary release device is composed of a mushroom-head push button with no panic functions. This device must be rotated towards the inner and dangerous side of the machine so that an operator entrapped could activate it, release the switch and go out of the area. To restore the switch, reset the push button. This device cannot be used for functions of emergency stop of the machine.
- **Head D7**: This head has contemporaneously functions of heads D5 and D7. The release occurs always, any of two devices is activated (push button or lock).

Gate monitoring
These switches alone cannot protect operators or maintenance men where they may physically enter with all their body in the hazardous area, because an involuntary closing of the protection behind them could allow the restart of the machine. If the authorization to the machine restart is completely granted by these switches, it must be foresee a system to avoid that risk, as for example the pad lockable device to lock the actuator entry.

Item specifications
- **VF KB2** at page 4/56
Safety switches with solenoid and separate actuator

**Example of working cycle steps with FG 60AD1D0A-F21 (switch with working principle D)**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>Machine working</td>
</tr>
<tr>
<td>Step 2</td>
<td>Actuator locked</td>
</tr>
<tr>
<td>Step 3</td>
<td>Machine slowing down</td>
</tr>
<tr>
<td>Step 4</td>
<td>Actuator locked</td>
</tr>
<tr>
<td>Step 5a</td>
<td>Machine stopped</td>
</tr>
<tr>
<td>Step 5b</td>
<td>Actuator extracted</td>
</tr>
</tbody>
</table>

**Contacts position in switch states**

<table>
<thead>
<tr>
<th>Operation state</th>
<th>Working principle D</th>
<th>Working principle E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuator locked</td>
<td>inserted and locked</td>
<td>inserted and unlocked</td>
</tr>
<tr>
<td>Solenoid de-energized</td>
<td>De-energized</td>
<td>Energized</td>
</tr>
<tr>
<td>state A</td>
<td>state B</td>
<td>state C</td>
</tr>
</tbody>
</table>

- FG 60A: 1NO+1NC controlled by the solenoid
- FG 60B: 2NC controlled by the solenoid
- FG 60C: 3NC controlled by the solenoid
- FG 60D: 1NO+1NC controlled by the solenoid
- FG 60E: 1NO+2NC controlled by the solenoid
- FG 60F: 1NO+2NC controlled by the actuator
- FG 60G: 2NC controlled by the actuator
- FG 60R: 2NO+2NC controlled by the solenoid
- FG 60N: 1NO+1NC controlled by the solenoid
- FG 60P: 1NC controlled by the solenoid

**Notes:**
- The GUARD CLOSING with de-energized solenoid brings the switch back in B state and then in A state in quick sequence.
- When the switch is in C state, energized or de-energized, the solenoid do not influence the contacts position.
Safety switches with solenoid and separate actuator

### Dimensional drawings

**Contacts type:**

- L = slow action

**Switch with D working principle with sealable auxiliary release device, supplied without actuator**

**Switch with E working principle, supplied without actuator**

| Contacts blocks | 60A | 60B | 60C | 60D | 60E | 60F | 60G | 60H | 60I | 60J | 60K | 60L | 60M | 60N | 60O | 60P | 60Q | 60R | 60S | 60T | 60U | 60V | 60W | 60X | 60Y | 60Z |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| FG 60AD1D0A | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC |
| FG 60BD1D0A | 2NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC |
| FG 60CD1D0A | 3NC | 1NC | 1NC | 1NC | 1NC | 1NC | 1NC | 1NC | 1NC | 1NC | 1NC | 1NC | 1NC | 1NC | 1NC | 1NC | 1NC | 1NC | 1NC | 1NC | 1NC | 1NC | 1NC | 1NC |
| FG 60DD1D0A | 1NO+1NC | 2NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC |
| FG 60ED1D0A | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC |
| FG 60FD1D0A | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC | 1NO+2NC |
| FG 60GD1D0A | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC | 2NC |
| FG 60ND1D0A | 1NO+1NC | 2NO | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC | 1NO+1NC |
| FG 60PD1D0A | 1NC | 3NC | 1NC | 3NC | 1NC | 3NC | 1NC | 3NC | 1NC | 3NC | 1NC | 3NC | 1NC | 3NC | 1NC | 3NC | 1NC | 3NC | 1NC | 3NC | 1NC | 3NC | 1NC | 3NC |
| FG 60RD1D0A | 2NO+2NC | / | 2NO+2NC | / | 2NO+2NC | / | 2NO+2NC | / | 2NO+2NC | / | 2NO+2NC | / | 2NO+2NC | / | 2NO+2NC | / | 2NO+2NC | / | 2NO+2NC | / | 2NO+2NC | / | 2NO+2NC | / | 2NO+2NC | / |

**Contact blocks**

- 60A
- 60B
- 60C
- 60D
- 60E
- 60F
- 60G
- 60H
- 60I
- 60J
- 60K
- 60L
- 60M
- 60N
- 60O
- 60P
- 60Q
- 60R
- 60S
- 60T
- 60U
- 60V
- 60W
- 60X
- 60Y
- 60Z

**Min. force:**

- 30 N (60 N)

**Travel diagrams:**

- page 4/54 - group 1

---

All measures in the drawings are in mm.
**Other release button lengths**

- LP30: Wall thickness length max 30 mm
- LP40: Wall thickness length max 40 mm
- LP60: Wall thickness length max 60 mm

**How to read travel diagrams**

- **Contacts controlled by the solenoid**
- **NC opening and NO closing**
- **Max travel**

**Contacts controlled by the actuator**

- **Positive opening travel**
- **NC opening**
- **NO closing**

**Example diagram**

**IMPORTANT:**
- **NC contact has** to be considered with inserted and locked actuator. **In safety applications,** it is necessary to activate the switch **at least up to the positive opening point** indicated in the diagrams with the symbol 🔄. **Operate the switch at least with the positive opening force,** indicated between brackets, below each article, next the value of minimum force.

**Travel diagrams table**

<table>
<thead>
<tr>
<th>Contact blocks</th>
<th>Group 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>60A 2NO+2NC</td>
<td></td>
</tr>
<tr>
<td>60B 1NO+3NC</td>
<td></td>
</tr>
<tr>
<td>60C 4NC</td>
<td></td>
</tr>
<tr>
<td>60D 1NO+3NC</td>
<td></td>
</tr>
<tr>
<td>60E 1NO+3NC</td>
<td></td>
</tr>
<tr>
<td>60F 2NO+2NC</td>
<td></td>
</tr>
<tr>
<td>60G 4NC</td>
<td></td>
</tr>
<tr>
<td>60N 3NO+1NC</td>
<td></td>
</tr>
<tr>
<td>60P 4NC</td>
<td></td>
</tr>
<tr>
<td>60R 2NO+2NC</td>
<td></td>
</tr>
</tbody>
</table>
Stainless steel actuators

IMPORTANT: These actuators must be used with FG series only (e.g. FG 60AD1D0A)

<table>
<thead>
<tr>
<th>Article</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VF KEYF20</td>
<td>Straight actuator</td>
</tr>
<tr>
<td>VF KEYF21</td>
<td>Right-angled actuator</td>
</tr>
<tr>
<td>VF KEYF22</td>
<td>Actuator with rubber mountings</td>
</tr>
</tbody>
</table>

Universal actuator VF KEYF28

IMPORTANT: These actuators must be used with FG series only (e.g. FG 60AD1D0A)

<table>
<thead>
<tr>
<th>Article</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VF KEYF28</td>
<td>Universal actuator</td>
</tr>
</tbody>
</table>

Joined and two directions adjustable actuator for doors with reduced dimensions. The actuator has two couples of fixing holes and it is possible to rotate the actuator-working plan (see picture).

For inaccurate doors

Accessories: See page 5/1

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

Pliers, steel wire and lead seals used to seal the auxiliary release device.

<table>
<thead>
<tr>
<th>Article</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VF FSPB-200</td>
<td>Set of 200 lead seals</td>
</tr>
<tr>
<td>VF FSPB-10</td>
<td>Set of 10 lead seals</td>
</tr>
<tr>
<td>VF FSPZ</td>
<td>Plier without logo</td>
</tr>
<tr>
<td>VF FSI-400</td>
<td>400 m steel wire roll</td>
</tr>
<tr>
<td>VF FSI-10</td>
<td>10 m steel wire roll</td>
</tr>
</tbody>
</table>

**Accessories**

<table>
<thead>
<tr>
<th>Article</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VF KB2</td>
<td>Actuator entry locking device</td>
</tr>
</tbody>
</table>

Padlockable device to lock the actuator entry in order to prevent from the accidental closing of the door behind operators while they are inside the machine. To be used only with FG series.

<table>
<thead>
<tr>
<th>Article</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VF KLA371</td>
<td>Set of 2 locking keys</td>
</tr>
</tbody>
</table>

Extra copy of the locking keys to be purchased if further keys are needed (standard supply 2 units). All switches keys have the same code. Other codes on request.

**Safety modules**

Pizzato Elettrica s.r.l. offers its customers a wide range of safety modules made considering the typical problems about the control of the safety switches and their real use conditions. There are available safety modules with instantaneous or delayed contacts suitable for type 0 (immediate stop) or type 1 (monitored stop) emergency circuits.

Safety switches with solenoid series FG could be connected to safety modules in order to obtain safety circuits up to the category 4, in accordance with EN 954-1. For any technical information or wiring diagram please contact our technical staff.