FirePro control MANUAL

Door control for FailSafe (FS) motors

HW version 1.3
SW version 1.4

English
Table of Contents

1 Description of the Control............................................................................................................... 2
2 Safety Instructions .......................................................................................................................... 3
3 Mounting ....................................................................................................................................... 4
4 Connecting ..................................................................................................................................... 5
5 Putting into operation .................................................................................................................... 11
6 Menu ............................................................................................................................................ 14
7 Messages/Alerts ............................................................................................................................ 18
8 Overview of the Control Print ...................................................................................................... 21
9 Diagram ....................................................................................................................................... 22

Read this manual carefully and keep it at hand, including its annexes!
1 Description of the Control

The FirePro is a control for FailSafe motors (FS series) with mechanically adjustable limit switches and a centrifugal brake. This control can operate automatically and as a dead man device. The buttons on the cabinet and by means of the external up-stop-down operation enable you to operate the control. There is also an input for impulse operation (e.g., a pull switch).

A key switch located on the cover can switch the operation on and off. The cover also contains a bicoloured LED, which is green during normal operation and red in case of a fault, fire, smoke or voltage failure. The cause for the red LED alert is shown on the display of the control print.

There is also an input for the safety contact (NC) of the fall protection. If this input is interrupted, the door can only be opened and can no longer be closed.

The control is equipped with batteries, which supply the voltage to the control and restrain the brake in case of voltage failure when there is no fire or smoke alert. In case of fire or smoke or if the batteries are empty or absent, the door drops until the voltage of the brake falls. If there is still voltage, the door drops until it reaches the closed limit switch or overclose limit switch in the menu, you can set whether the door drops until it reaches the normal closed limit switch or until it reaches the additional overclose limit switch.

Using the overclose limit switch the door can drop and close even further compared to normal operation. For this purpose, the additional limit switch (S6) of the motor is used. This can also be used to set a half-opening in case of escaping a fire, so that the door/roller shutter will not completely open in case of an incident and/or can make an intermediate stop according to a set time when closing in case of fire of smoke alert or in case of a low battery voltage.

In case of a fire alert, the door is released immediately or after an extended time. In case of a smoke alert, a command should be given to the reset input after the smoke alert has passed. In case of a smoke alert, a non-potential relay contact also switches, which indicates that the door is closed, so that the spaces in the door can be filled. Escaping at that point is no longer possible. If this contact is not used for a smoke alert, it can be programmed in the menu to switch when a fault is active.

If the door moves, a non-potential alternating relay contact switches to which it is possible to connect a siren or another signalling device. This stops when the door stops moving. In case of fire, a non-potential alternating relay contact also switches to which it is possible to connect a siren/alarm or another signalling device.

It is possible to connect a safety edge, for example, an air pressure contact, an 8K2 resistance jamming moulding or an optical sensor. In case of normal operation, the safety edge functions only if automatic closing is selected. When closing in case of fire or smoke alert or low battery voltage, the safety edge can be switched on or off. In case of activating the safety edge, the door will stop dropping if the safety edge is switched on. Via the menu, you can select the type of protection and set the waiting time after activating the protection before the door continues to drop. If there is still power supply, you can select to open the door completely and then to close it. The photocell protection functions only during normal operation in which case the door will stop and then reopen.

It is possible to connect an escape button with which the door can be controlled to open in order to enabling escape in case of a fire or smoke alert if there is still mains power supply. The door will then close again after a set time. You can also set the door to open as long as the open button is pushed and to close as soon as this button is released on condition that there is still main power supply. In case of a smoke alert, the door/roller shutter can no longer be opened after it closes completely.
A maintenance cycle can also be activated in the menu. If this is activated and the number of set cycles has been reached, the LED will become red and green alternatingly. The display will show an alert.

In case of interrupting the incident/fire-alert contact or if the battery is nearly empty (and the option ‘closing’ has been selected), the door/roller shutter will automatically close and this can occur without protection!

Make sure that the batteries are never discharged completely. If the batteries are completely discharged, they cannot be reused and they must be replaced. Disconnect the batteries if the control is not used. Replace the batteries each year during the preventive maintenance service.

2 Safety Instructions

Read this manual carefully before starting the work activities on this control. Check the screwed connections before activating this control.

ATTENTION: Before starting the work activities on this control, you should first disconnect the mains power supply and the poles of the batteries. Carrying out work activities on this control while it is under tension is life-threateningly and can cause severe injuries! Only qualified personnel with the proper equipment and knowledge are permitted to carry out work activities on this control. Qualified personnel are understood to mean ‘persons who are familiar with installing, configuring, activating and operating electrical-driven door/shutter installations. They must be able to assess the entire installation, recognise potential dangers and affix the necessary safeguards.

2.1 Regulations relevant to safety

The safety and accident-preventing regulations applicable to the specific case must be observed when installing, activating, maintaining and checking the control. In particular, you must comply with the following regulations (without claiming that this list is complete):

**European norms:**
- EN 12445
  Test method for safely using power-driven doors
- EN 12453
  Requirements for safely using power-driven doors
- EN 12978
  Requirements and test methods for safety arrangements to power-driven doors

In additions, the normative references of the stated norms must be observed.

**Verband Deutscher Elektrotechniker (VDE) regulations:**
- EN 418
  Safety of machines
  EMERGENCY STOP arrangement, functional aspects
  Directives for the configuration
- EN 60204-1 / VDE 0113-1
  Electrical installations with electrical equipment
- EN 60335-1 / VDE 0700-1
Safety of electrical devices for household use and similar purposes
- BGV A2
  Regulations of the business insurance regarding safety and health at work
- ZH1/494
  Directives for power-driven windows, doors and shutters
- Fire-fighting regulations / Accident-preventing regulations

3 Mounting
For a proper and professional assembly of this control, the following points (just to name a few) must be checked and inspected:

- The control must be mounted in a proper and sturdy housing that complies with the applicable requirements regarding the on-site situation.
- To comply with the applicable Ingress Protection Marking (IP Code), the cable ducts may need to be replaced. Additional sealing measures may need to be taken.
- PVC insulated wiring must only be used in indoor areas.
- Each phase of the power supply must be fused against short-circuiting and overloading.
- The following applies if a fixed power-supply cable including a 16A plug is used:
  Mount a 16A wall outlet in the immediate vicinity of the control and fuse the power supply according to the applicable norms/directives. After mounting the control and the power-supply cable including the wall outlet, check whether the screwed connections are screwed properly and whether everything is connected correctly.
- The following applies when connecting to the installation: Connect the control using a fixed power-supply cable and fuse the power supply as indicated earlier. To interrupt the power supply, a multi-pole switch must be mounted in the immediate vicinity of the control, which must interrupt all poles in case of switching off. Attention: the switch used must have a contact opening that complies with the overvoltage Category III for a complete separation.
- The electrician must formulate an on-site danger analysis of the entire installation in which attention is paid to whether the door or shutter concerned is safeguarded properly and cannot constitute a jamming risk to persons or objects.
- The installation must minimally comply with the European and locally applicable legislation and norms.
- The door or shutter must be protected against passing the final adjustment by using safety limit switches, mechanical stops or other safety systems.
- The technical data of any external components used (such as photocells, traffic lights or induction detectors, for example) must be checked. These are not allowed to exceed the maximum permitted load of the control.
4 Connecting

The 3N~400Vac, 1N~230Vac or 3~230Vac mains power supply is connected to X1. The following figure shows the different diagrams. The earthing is connected to X3.

Figure 1: Connecting the mains power supply

The charger for the batteries, which is also the power supply for the control, needs an input of 230Vac. This is connected to X4 according to the following diagram and the earthing is connected to X3.

Figure 2: Connecting the 230VAC voltage to the power supply / charger

The output of the power supply / charger is constructed using a plug connector. This can be plugged into X16, which provides the power supply for the control. The wires for the batteries can be pushed onto the poles of the batteries. Attention: The red wire is for the positive terminal and the black wire is for the negative terminal! The two 12V batteries must be in series so that they deliver an output voltage of 24V.
The three phases or the phase and zero of the motor are connected to X2 (U-V-W). In case of a 1-phase motor, V is the zero, U is the phase for closing and W is the phase for opening. The earthing is connected to X3 and the brake to X17.

⚠️ Pay attention to the polarity when connecting the brake. The positive and negative wires/terminals are not to be confused!

The limit switches of the motor are connected to X5. Figure 5 shows the diagram for connecting the limit switches. The additional limit switch is a normally-open (NO) / generating relay contact and all the other limit switches are normally-closed (NC) / interrupting relay contacts.

Keep this manual at hand, including its annexes!
The NC / interrupting relay contact of the drop-down protection is connected to X6. If no drop-down protection is used, this input must be connected using a bridging wire, because otherwise the door cannot be closed.

**Figure 6: Connecting the NC / interrupting relay contact of the drop-down protection**

There are two inputs for connecting an up-stop-down operation: X7 and X8. X7 is used for the operation on the cover of the cabinet and X8 can be used for an external operation. If X7 or X8 is not used, the connections 1 and 2 for the stop function must be connected using a bridging wire.

**Figure 7: Connecting the op-stop-down operation**

A photocell can be connected to X10. X10 has also a 24 VDC power supply for powering a photocell or any other accessories such as a receiver, for example. In addition, there is also an input for the NC / interrupting relay contact of the photocell. If no photocell is used, this input must be connected using a bridging wire.

**Figure 8: Connecting the photocell**
A key switch can be connected to X11 to numbers 1 and 2. This key switch is placed on the cover and used to switch the operation ‘on’ and ‘off’. If no key switch is used, this input must be connected using a bridging wire in order to let the operation function. The non-potential NC / interrupting relay contact of the fire or smoke alarm can be connected to numbers 3 and 4, which will be interrupted in case of a fire and/or incident. If this input is not used, it must be connected using a bridging wire.

An escape button can be connected to numbers 5 and 6, which can be used to open the door in case of a fire and/or incident. There is an impulse function on numbers 7 and 8 to which an operation (such as a pull switch, for example) can be connected that can open and close the door.

Figure 9: Connecting terminal X11

A safety edge can be connected to X12. This can be a resistance protection with a 1K2 resistance (air pressure contact) or with an 8K2 resistance (electric jamming moulding). It is also possible to connect a protection by means of optical sensors.

Figure 10: Connecting the safety edge

Attention: In case of using a safety edge, you must check and determine whether the electrically driven door complies with the EN12445 and EN12453 directives and with the locally applicable norms!
There are two outputs as non-potential alternating relay contacts on X13. One output is **Siren**, which switches depending on the 4.1 setting in the menu when the door/roller shutter moves or as a pre-warning before the door/roller shutter closes. The other output is **Alarm**, which switches in case of a fire and/or smoke alert or if closing is selected in case of low battery voltage.

![Diagram of X13 outputs](image)

**Figure 11: The Siren and Alarm outputs**

There are eight (8) outputs as a non-potential NO / generating relay contact with a single zero connection in common on terminal X13. These outputs transmit the following eight (8) alerts on:
- **Connection 2**: Open limit switch is reached (door/roller shutter open).
- **Connection 3**: Closed limit switch is reached (door/roller shutter closed).
- **Connection 4**: Additional limit switch is reached.
- **Connection 5**: Safety chain of the motor is interrupted (one of the emergency limit switches is activated or the thermal contact is interrupted).
- **Connection 6**: Drop-down protection is activated.
- **Connection 7**: Activated safety edge is defect (this can be changed to photocell or both safety edge and photocell in the menu at parameter 0.7).
- **Connection 8**: Low battery voltage
- **Connection 9**: No mains power supply

![Diagram of X15 alerts](image)

**Figure 12: Alerts on terminal X15**
If a separate smoke alert is selected, this can be connected to X9 to connections 1 and 2 as a non-potential NC / interrupting relay contact. Its reset can be connected to X9 to connections 3 and 4 as a non-potential NO / generating relay contact. To indicate that the door is closed when the Smoke Alert Contact input is activated, the X14 output is available as a non-potential alternating relay contact.

Figure 13: Smoke Alert Contact input and reset after a smoke alert

Figure 14: Non-potential relay contact alert door/roller shutter in case of smoke alert
5 Putting into operation

ATTENTION: Before carrying out the connections, check whether all poles of the power supply are interrupted!

Adjusting the limit switches
Check the adjustment of the motor. If the factory settings are loaded onto the control, the control runs in dead man’s operation mode in both directions. Subsequently, check carefully whether the limit switches open and closed are properly set on the motor. Put the emergency limit switches (red) just behind the limit switches open/closed, so that the control stops if a limit switch fails. If desired, adjust the additional limit switch if you selected in the menu to use this in case of fire. This can be as “overclose limit switch” to drop and close the door even further compared to normal operation or in case of escaping to open the door halfway in case of escaping when there is fire, smoke or low battery voltage (parameter 2.1) or an intermediate stop (parameters 4.1 and 4.2). Adjust this limit switch to the position in which the door should stop in case of fire or in case the battery is almost empty and you selected in the menu to drop the door even in that case. If there is a safety edge, then adjust the pre-limit switch as well, so that this switches to closed just before the actual limit switch. This will cause the safety edge return function to switch off and the door only stops, if the safety edge is activated, so that the door does not return to the open position if it reaches the ground, or is switched off if this is set in the menu by parameter 0.6, so that the door will always continue to run until it reaches the limit switch closed. If the door/roller shutter closes in case of a fire or smoke alert or in case of low battery voltage, the safety edge in the pre-limit switch will be completely switched off. Attention: The door will then close completely without protection and not be ajar because of the safety edge!

Automatic or dead man operation
The door opens and closes in dead man’s operation mode if the control is set to factory settings. If desired, the door can automatically open by setting parameter 0.1 to 2 in the menu. Automatically open and close can be set by setting parameter 0.1 to 3.

Operating time
Make sure not to set the operating time (parameter 2.1) too short. Set an operating time larger than the time that the door needs to go from completely closed to completely open. If the motor takes longer, the door will stop and the stop button must be pushed first before a new command can be given to open or close the door.

Protections
It is possible to connect a safety edge to the control. This can be an optical sensor, a 1K2 air pressure contact or an 8K2 electric jamming moulding, which can be connected to X12. Using parameter 0.3, you can select whether this will be detected automatically or the connected protection can be set permanently. If no protection is detected at start-up, the display will show error message 2.0. If you have selected dead man’s closure in normal operation, the display will show error message 2.0 only once. If you have selected automatic closing, the error message will be repeated continuously.

Using parameter 0.3, you can set the function of the safety edge in normal operation. In case of factory settings, the door stops and subsequently opens completely. Using option...
2, you can opt for only stopping if the safety edge is activated, but then you must give a new command to move the door.

Using parameter 0.4, you can set the function of the safety edge in case of closing after a fire or smoke alert or if you selected to close in case of low battery voltage (parameter 3.7 is set to 2), if the voltage drops below the voltage set in parameter 3.8. In case of factory settings, the safety edge is switched off. In case of option 2, the door or roller shutter stops dropping, waits the time set by parameter 0.5 and continues to close. In case of option 3 if there still is mains power supply the roller shutter opens completely, waits the time set by parameter 0.5 and continues to close. If there is no mains power supply, the door/roller shutter only stops and continues to close after the time set by parameter 0.5.

Using parameter 3.6, you can select to switch the safety edge off, if it is interrupted in case the fire or smoke alert is active, if it is interrupted in case of closing when there is low battery voltage is active, or if it is not available.

Using parameter 3.5, you can select to limit the number of times the safety edge stops. If this is selected, parameter 3.9 can be set to ignoring the safety edge if the maximum number of attempts is reached (thus, without closing the safety edge further) or to redirect the door/roller shutter to open for 2 seconds and then stops or to stop immediately.

In addition to the safety edge, it is also possible to connect a photocell. This photocell only functions in normal operation, if automatic closing is selected. The door or roller shutter will stop when the photocell is activated and subsequently, will open completely. The photocell is switched off in case of a fire or smoke alert or closing when there is low battery voltage.

**Impulse function**

An impulse input is located in the control. If the control runs in dead man's operation mode in one direction, the impulse should be maintained in that direction. If it is released, the motor stops. If you press it again, the other direction becomes active. If you have selected automatic opening, the door continues to open according to the factory settings until it reaches the limit switch open and only then is it possible for the impulse input to redirect the door downwards. By putting parameter 2.2 to setting 2 and reactivating the impulse input, the door can also be stopped during the open run. In case of the next activation of the impulse input, the door will run in dead man's operation mode downwards as long as the impulse input remains active.

**Fire Alert (FA) function**

If the Fire Alert Contact (FAC) is activated, the door will close because the voltage on the electric brake of the motor is interrupted. In case the standard factory settings are used, the door drops until it reaches the limit switch closed. If the door should drop further than the limit switch closed or should stop in another position, the additional limit switch (S6) can be used as 'overclose limit switch'. For this purpose, the parameter 3.1 should be put to setting 2.

The normal open button can be switched on or off using parameter 3.3, if the FA function is active. If this is active by pressing it, the door will run open in dead man's operation mode and upon releasing it, will close immediately. The FA function can be extended after the FAC input has reclosed. You can set this from 0 to 240 seconds using parameter 3.4.

There is also an input for connecting an escape button. The door will open once this button is operated. This can be completely open or the additional limit switch can be used to set an intermediate position, so that the door/roller shutter only opens halfway (put
parameter 3.1 to setting 3). If the waiting time set by parameter 2.2 from 1 to 240 seconds has expired, the door/roller shutter will close. During this waiting time, the escape button can be used to close the door/roller shutter immediately. This intermediate position can also be used to make an intermediate stop during closing (parameter 4.1), if the FAC is active. The door/roller shutter will then first drop to this position will wait the time set using parameter 4.2 and subsequently close.

**Smoke Alert (SA) function**
A smoke alert triggers the same occurrence as a fire alert. Only if the door/roller shutter is completely closed, an output switches that sets off the alert, so that any openings in the door/roller shutter can be filled. The door/roller shutter can no longer be opened and therefore, the escape functions are disabled. If the smoke alert has passed, a reset command should first be given after releasing the door/roller shutter. Only then will the door/roller shutter function normally.

**Low battery voltage**
The level at which point an alert should be given that the battery has too low voltage can be set from 20V to 25V using parameter 3.8. A message will appear on the display and the red LED on the control will start to burn. In case of power failure, you can select by using parameter 3.7 to close the door/roller shutter in the same manner as occurs by activating the FAC input.

**Messages**
A non-potential alternating relay contact **Siren** is located on the control to which a siren or warning light can be connected. The function of this contact can be set using parameter 5.1. In addition, there is another non-potential alternating relay contact **Alarm**, which switches if the FAC input is active. There are eight (8) messages that have a zero connection in common and are constructed as a non-potential NO / generating relay contact. These are the following messages:
- Limit switch open is reached.
- Limit switch closed is reached.
- Additional limit switch is reached.
- Safety chain of the motor is interrupted.
- Drop-down protection is activated.
- Safety edge is activated / defective. Using parameter 2.3, this can be set to giving a message of only the safety edge, of only the photocell, or of both the safety edge and the photocell.
- Low battery voltage (The limit set in parameter 3.8 is exceeded.)
- No mains power supply

If the smoke alert is not used, the $SA$ closed relay contact can be used to give an alert that an error message is active. This can be done by putting parameter 2.6 to setting 2.

**Maintenance counter**
A maintenance counter can be activated in the menu using parameter 8.7. Using parameter 8.5, the number of door openings can then be set (per 1,000) before a maintenance alert is given. If this counter reaches zero, the message C.S. (maintenance cycle) will appear on the display and the LED on the display will flash alternatingly red and green (if no error message is active).
6 Menu

Using the menu, you can adjust the settings.
Three push buttons are located on the print to the right of the display: , , and stop/ok (see the illustration). These buttons operate as up-stop-down buttons during normal operation.
You can access the menu by pushing the stop/ok button for approx. 3 seconds. Then you can scroll through the parameters using the and buttons. Once you reach the parameter you wish to adjust, you can open it by pushing the stop/ok button. You can then change it using the and buttons. To return to the menu and to confirm the change, push the stop/ok button briefly. To exit the menu, scroll to parameter 0.0 and push the stop/ok button briefly.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>Exiting the menu</td>
<td>Exiting the menu by pushing on stop/ok</td>
</tr>
<tr>
<td>0.1</td>
<td>Selecting automatic or dead man's operation mode (standard setting .1)</td>
<td>.1 Dead man open, dead man close .2 Automatic open, dead man close .3 Automatic open and close*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Check whether the door does not exceed the maximum permitted pressure load in case of entrapment!</td>
</tr>
<tr>
<td>0.2</td>
<td>Selecting the type of safety edge (standard setting .1)</td>
<td>.1 Automatic detection .2 Selecting optical sensors .3 Selecting 1K2 air pressure contact .4 Selecting 8K2 electric jamming moulding .5 No safety edge (only closing in dead man's operation mode is possible)</td>
</tr>
<tr>
<td>0.3</td>
<td>Selecting the function of the jamming protection in normal operation with automatic closing (put parameter 0.1 to 3) (standard setting .1)</td>
<td>.1 Stopping and redirecting the door/roller shutter to open completely .2 Stopping if the jamming protection is activated and continuing only after pushing the button again</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td>Settings</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
<td>----------</td>
</tr>
<tr>
<td>0.4</td>
<td>Selecting the jamming protection in case of fire (standard setting .1)</td>
<td>.1 Switching the jamming protection off .2 Stopping if the jamming protection is activated and continuing with closing after the time set by parameter 0.5 has elapsed .3 If there still is power supply, opening completely; if there is no power supply, stopping and closing again after the time set by parameter 0.5 has elapsed</td>
</tr>
<tr>
<td>0.5</td>
<td>Elapsed time to restart closing in case of fire after activating safety edge (standard setting 3 seconds)</td>
<td>2 ÷ 60 seconds</td>
</tr>
<tr>
<td>0.6</td>
<td>Function of the safety edge in case of reaching the pre-limit switch closed</td>
<td>.1 Stopping if the safety edge is activated .2 Disabling/ignoring the safety edge</td>
</tr>
<tr>
<td>2.1</td>
<td>Monitoring the operating time of the motor (standard setting 120 seconds)</td>
<td>1 ÷ 240 seconds</td>
</tr>
<tr>
<td>2.2</td>
<td>Function of the impulse input in case of selecting automatic opening by parameter 0.1 (standard setting .1)</td>
<td>.1 Not stopping in case of open direction .2 Stopping in case of open direction</td>
</tr>
<tr>
<td>2.3</td>
<td>Time of automatic closing in normal operation (standard setting 0)</td>
<td>0 = disabled 1 ÷ 240 seconds</td>
</tr>
<tr>
<td>2.4</td>
<td>Function of the photocell during countdown of the automatic closing time in normal operation (standard setting .0)</td>
<td>.0 Time is restarted in case of photocell interruption .1 After photocell interruption, the door will close after 3 seconds regardless of the remaining time</td>
</tr>
<tr>
<td>2.5</td>
<td>Number of re-openings in case of automatic closing and activation of the safety edge (standard setting 2)</td>
<td>1 up to 10</td>
</tr>
<tr>
<td>2.6</td>
<td>Function of the non-potential alternating relay contact SA closed (standard setting .1)</td>
<td>.1 SA closed; in case of a smoke alert, gives an alert that the door is completely closed .2 Gives an alert that an error message is active</td>
</tr>
<tr>
<td>2.7</td>
<td>Pre-warning for closing in normal operation (standard setting 0 second)</td>
<td>0 ÷ 60 seconds</td>
</tr>
<tr>
<td>2.8</td>
<td>Pre-warning for closing in case of fire or empty battery (standard setting 0 second)</td>
<td>0 ÷ 60 seconds</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td>Settings</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
<td>----------</td>
</tr>
<tr>
<td>3.1</td>
<td>Selecting the limit switches in case of fire (standard setting .1)</td>
<td>.1 Using the normal limit switch closed and disabling the additional limit switch (S6) .2 Using the additional limit switch (S6) as overclose limit switch .3 Using the normal limit switch closed and using the additional limit switch (S6) as limit switch open (intermediate position) in case of fire</td>
</tr>
<tr>
<td>3.2</td>
<td>Time of automatic closing while using the escape button in case of fire (standard setting 1 second)</td>
<td>1 ÷ 240 seconds</td>
</tr>
<tr>
<td>3.3</td>
<td>Function of the normal open button in case of fire (standard setting .1)</td>
<td>.1 Open button disabled .2 In dead man’s operation mode, open when pushing the button and closing immediately upon releasing it</td>
</tr>
<tr>
<td>3.4</td>
<td>Extending the FA function after FAC has been active (standard setting 0 second)</td>
<td>0 ÷ 140 seconds</td>
</tr>
<tr>
<td>3.5</td>
<td>Number of attempts to activate the safety edge in case of fire, if 0 = infinite number of attempts. (standard setting 0)</td>
<td>0 ÷ 10 attempts</td>
</tr>
<tr>
<td>3.6</td>
<td>Ignoring the safety edge if this is not detected in case FAC becomes active (standard setting .1)</td>
<td>.1 Enabling, the door/roller shutter closes without protection .2 Disabling, the door/roller shutter remains open</td>
</tr>
<tr>
<td>3.7</td>
<td>Function in case of low battery voltage (standard setting .1)</td>
<td>.1 Only give an alert .2 Let the door/roller shutter close and give an alert</td>
</tr>
<tr>
<td>3.8</td>
<td>Level of low battery voltage in Volts (standard setting 20)</td>
<td>20V up to 25V</td>
</tr>
<tr>
<td>3.9</td>
<td>If parameter 0.4 is set to settings .2 or .3 and parameter 3.5 is not set to 0, the function of the safety edge can be selected after the number of attempts (standard setting .1)</td>
<td>.1 Continuing to close without safety edge .2 Opening for two seconds and then stopping (is only possible if parameter 0.4 is set to setting .3 and there still is mains power supply) .3 Only stopping (the brake remains activated until the batteries do not have sufficient capacity when the mains power supply has failed)</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td>Settings</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
<td>----------</td>
</tr>
</tbody>
</table>
| 4.1       | In case of fire, selecting *either* immediate and complete closure of the door/roller shutter or make an intermediate stop at the additional limit switch (S6) and afterwards, continue to close after the time set by 4.2 (not possible if parameter 3.1 is set to setting .2) *(standard setting .1)* | 1. Immediate and complete closure of the door/roller shutter  
2. Intermediate stop at the additional limit switch |
| 4.2       | Waiting time at intermediate stop if parameter 4.1 is set to setting .2 *(standard setting .1)* | 1 ÷ 240 seconds |
| 5.1       | Function of the Siren output *(standard setting .1)* | 1. Switches during a pre-warning and when the door/roller shutter is moving  
2. Switches only when the door/roller shutter is moving  
3. Switches only in case of a fire and/or smoke alert or low battery power during a pre-warning and when the door/roller shutter is moving  
4. Switches only in case of a fire and/or smoke alert or low battery power when the door/roller shutter is moving |
| 5.2       | Function of the (non-potential NC relay contact that have a zero connection in common) message that the protection is interrupted / defect *(standard setting .1)* | 1. Message for an interrupted / defect safety edge only  
2. Message for an interrupted / defect photocell only  
3. Message for an interrupted / defect photocell *and* safety edge |
| 8.5       | Number of cycles for maintenance per 1,000 cycles [can be set from 1,000 (= 1) up to 99,000 (= 99)] | 1 up to 99 |
| 8.7       | Enabling / disabling the maintenance counter *(standard setting .1)* | 1. Disabled  
2. Enables |
| 8.9       | Showing the maintenance cycle counter | Maintenance cycle counter is shown. This counts from the set value down to 0. At zero, an alert is given to carry out maintenance. |
| 9.1       | Cycle counter | Number of openings made by the door |
| 9.2       | Last two error messages | The last two error messages that were caused are shown here |
| 9.3       | Programming changes | The number of changes is shown in the menu |
| 9.4       | Reading the software version | Software version is shown |
| 9.5       | Resetting to the factory settings | 0. Do not reset; back to the menu  
1. Reset; restart the control |
7 Messages

When the key switch on the cover switches off the operation, the arrow at the right-hand side on the display lights up.

7.1 Status messages

<table>
<thead>
<tr>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E 1.1</td>
<td>Opening operation is active</td>
</tr>
<tr>
<td>E 1.2</td>
<td>Stopping operation is active</td>
</tr>
<tr>
<td>E 1.3</td>
<td>Closing operation is active</td>
</tr>
<tr>
<td>E 1.4</td>
<td>FAC input is active/interrupted</td>
</tr>
<tr>
<td>E 1.5</td>
<td>Escape button is active</td>
</tr>
<tr>
<td>E 1.7</td>
<td>SAC input is active or still not reset</td>
</tr>
<tr>
<td>C.S.</td>
<td>Maintenance cycle is reached (carry out maintenance on the door/roller shutter and reset parameter 8.5)</td>
</tr>
</tbody>
</table>

7.2 Error messages

<table>
<thead>
<tr>
<th>Message</th>
<th>Description</th>
<th>Recommendation/explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F 1.6</td>
<td>Fall protection is activated</td>
<td>Check whether the fall protection has been activated. If this is the case, check whether the door is in mechanically good condition. If this is okay, replace the fall protection or if possible repair it. If the fall protection has not been activated, check the electric circuit on terminal X. This should be closed, if the fall protection has not been called. If there is no fall protection, put a bridging wire on this connection.</td>
</tr>
<tr>
<td>F 2.0</td>
<td>No safety edge available</td>
<td>This message is given, if you select to detect the safety edge automatically. This message will appear once, if the safety edge is not detected during start-up of the control. If a safety edge is connected, check whether it is properly connected to terminal X11. The eyes of the optical sensors should see each other at the time of start-up of the control. A 1K2 or 8K2 resistance must be present on the terminals when starting the control. Possibly set the type of safety edge manually via the menu.</td>
</tr>
<tr>
<td>F 2.1</td>
<td>Photocell is activated</td>
<td>The photocells are interrupted. Passing the door can trigger this. If this message keeps on appearing, check whether the photocell is properly aligned and whether the lens is clean. Check the electrical circuit that is connected to X9. If the photocells are not interrupted, the electrical circuit on X9 (1 &amp; 2) must be closed. If photocells are not used, put a bridging wire under this connection.</td>
</tr>
<tr>
<td>Message</td>
<td>Description</td>
<td>Recommendation/explanation</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>F 2.2</td>
<td>Safety edge during automatic closing set by parameter 2.5: Number of attempts made</td>
<td>Check whether there is an obstacle in the door opening. If this is the case, remove it and give a new command to close the door. If this is not the case, check whether the safety edge is still okay or whether the pre-limit switch is correctly adjusted.</td>
</tr>
<tr>
<td>F 2.4</td>
<td>8K2 safety edge is activated</td>
<td>The 8K2 safety edge is activated. An obstacle in the door opening can trigger this. If there is no obstacle in the door opening and this message keeps on appearing, check whether the resistance of the moulding on terminal X11 (GND and 1K2/8K2 input) is still 8.2K Ohm.</td>
</tr>
<tr>
<td>F 2.5</td>
<td>8K2 safety edge is defective</td>
<td>Check whether the resistance of the moulding on terminal X11 (GND and 1K2/8K2 input) is still 8.2K Ohm. Check the spiral cable for any cable ruptures.</td>
</tr>
<tr>
<td>F 2.6</td>
<td>1K2 safety edge is activated</td>
<td>The 1K2 safety edge is activated. An obstacle in the door opening can trigger this. If there is no obstacle in the door opening and this message keeps on appearing, check whether the resistance of the moulding on terminal X11 (GND and 1K2/8K2 input) is still 1.2K Ohm.</td>
</tr>
<tr>
<td>F 2.7</td>
<td>1K2 safety edge is defective</td>
<td>Check whether the resistance of the moulding on terminal X11 (GND and 1K2/8K2 input) is still 1.2K Ohm. Check the spiral cable for any cable ruptures.</td>
</tr>
<tr>
<td>F 2.8</td>
<td>1K2 safety edge test negative</td>
<td>Check whether the resistance of the moulding on terminal X11 (GND and 1K2/8K2 input) is still 1.2K Ohm. Check the spiral cable for any cable ruptures. Check whether the pre-limit switch is correctly adjusted and the safety edge rubber is sufficiently pressed when the door/roller shutter is closed.</td>
</tr>
<tr>
<td>F 2.9</td>
<td>Optical sensor is activated</td>
<td>The optical safety edge is interrupted. An obstacle in the door opening can trigger this. If this is not the case and this message keeps on appearing, check whether the eyes still see each other. Also check the connections on X12 (+12V and ⫸12V for the 12V power supply and the optical input for the signal). Check whether the sensors are still operating or should be replaced.</td>
</tr>
<tr>
<td>F 3.1</td>
<td>Safety chain of the motor is activated (thermal contact, safety limit switches or emergency operation)</td>
<td>Check in the motor whether the emergency limit switches (red bosses) are activated. If this is the case, check whether the limit switches open and closed are correctly adjusted. It is also possible that the thermal contact of the motor is activated. Then wait until the motor has cooled off.</td>
</tr>
<tr>
<td>F 5.1</td>
<td>Error in ROM memory</td>
<td>Check of the ROM memory has failed. Restart the control. If this fails, replace the control.</td>
</tr>
<tr>
<td>Message</td>
<td>Description</td>
<td>Recommendation/explanation</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>F 7.0</td>
<td>No mains power supply</td>
<td>This message is shown if there is no mains power supply. The control operates only on batteries. The door can no longer be operated. The door will only drop, if the fire/smoke alert contact is activated or if it is selected to drop it in case of low battery voltage. If the batteries are completely empty, the door will also close, but the protections and limit switches will no longer function.</td>
</tr>
<tr>
<td>F 7.1</td>
<td>Low battery voltage or</td>
<td>This message is shown if the voltage of the batteries becomes lower than the level set in the menu or if the power supply subsides due to overloading.</td>
</tr>
<tr>
<td></td>
<td>24V overloaded</td>
<td></td>
</tr>
</tbody>
</table>

If there is mains power supply and there is no error/fault, the LED on the cover will turn green. If an error/fault occurs or if the FAC/SAC input is active and the smoke alert was not reset, this LED will turn red. If the maintenance cycle counter has reached zero, this LED will turn red and green alternatively, if normally the LED would be green. You can then carry out maintenance on the door and control and set parameter 8.5 in the desired position, so that the maintenance counter can start all over.
8 Overview of the Control Print
9 Diagram

Keep this manual at hand, including its annexes!
Your installer:

RDA BV | Parallelweg 3b | 5165 RE Waspik | T +31 (0) 416 66 00 44 | E info@rda-bv.nl | www.rda-bv.nl

This symbol (crossed out garbage container) means that the end-user is responsible for disposing this product separate of household waste. The purpose of using this symbol is to minimise the disposal of electric and electronic household devices as non-sortable waste and to avoid damage to health and the environment.