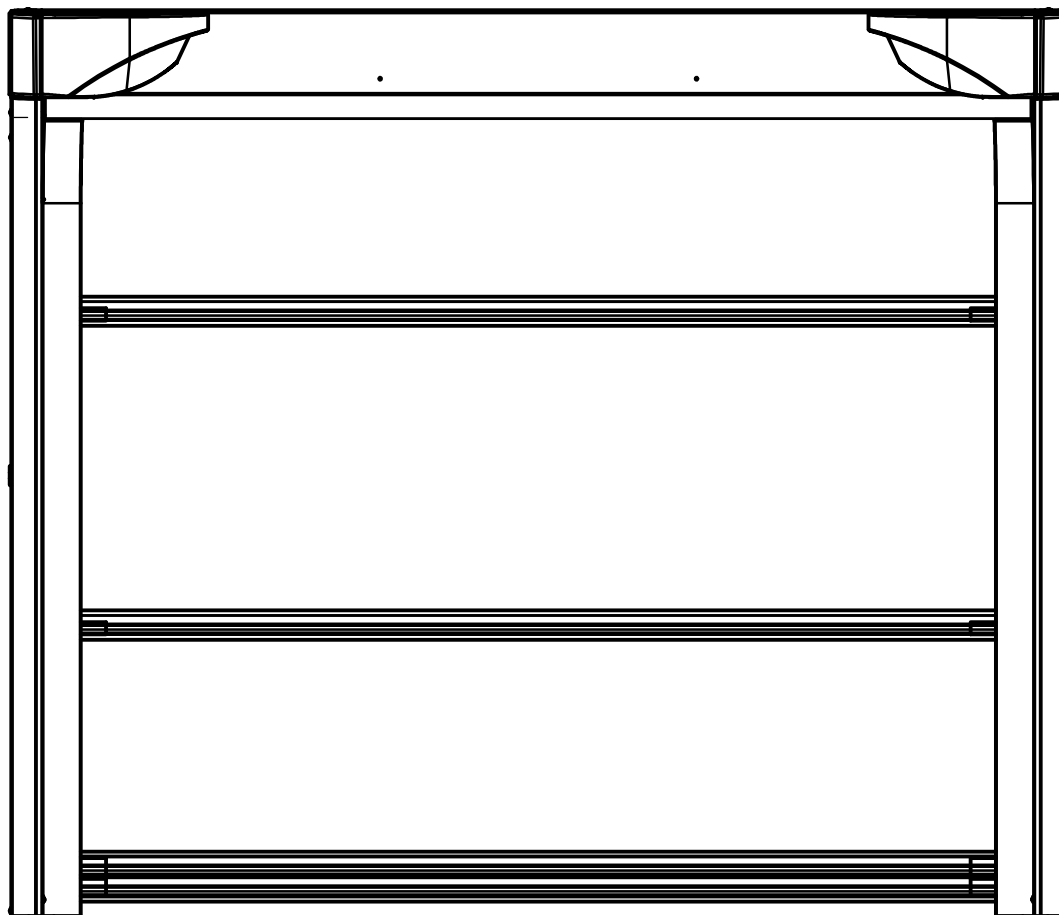




V3010

Electrical diagram

AKE 370 M-I

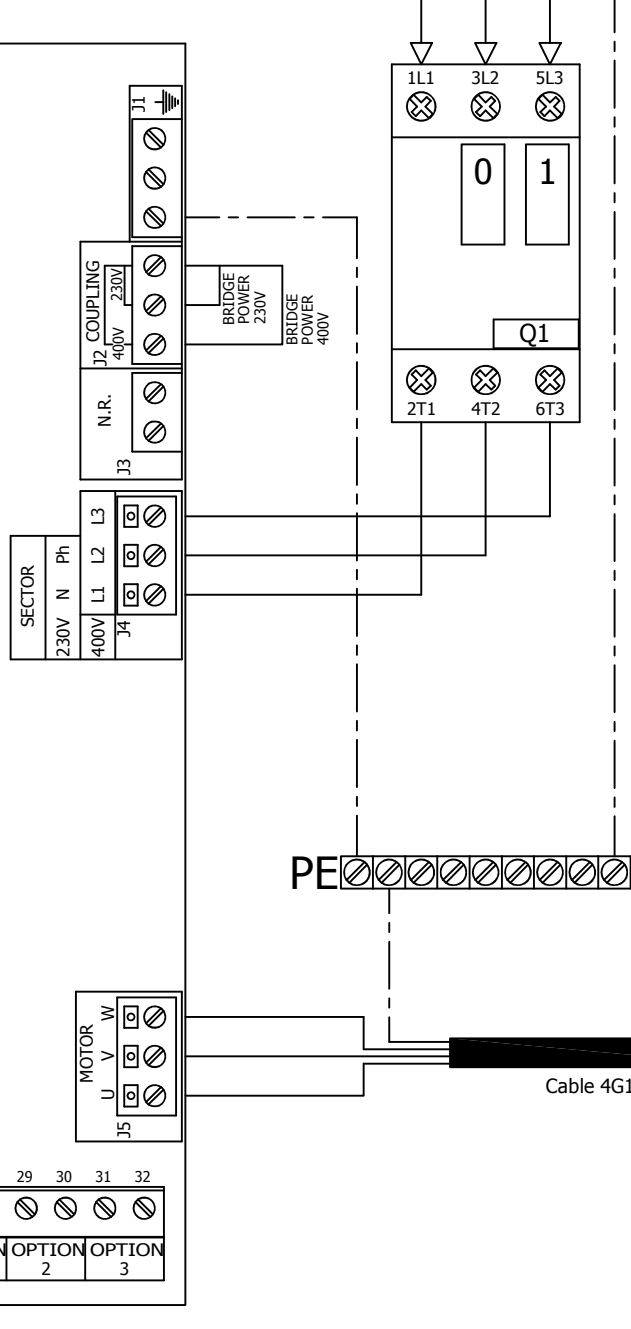
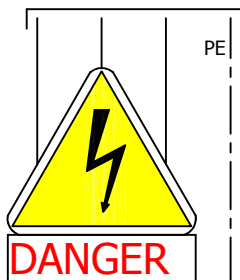
AKE 370 M

01/01/2021			
DATE			
HÖRMANN Upheider Weg 94-98, 33803 Steinhagen		ELECTRICAL DEPARTMENT	
		EN	

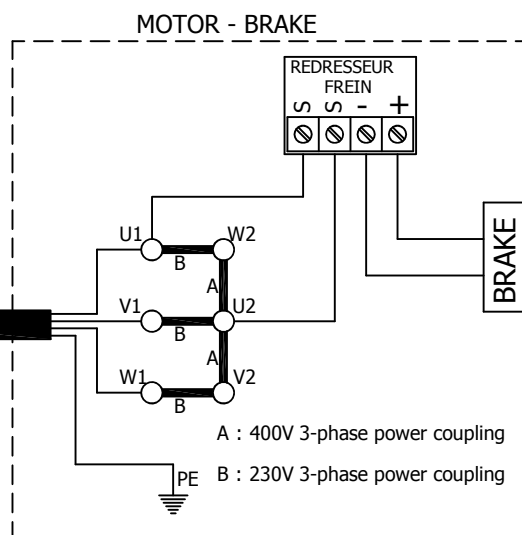
POWER SUPPLY
400V 3 PHASE + PE
OR
230V 3 PHASE + PE

The general circuit must be at either 16A C curve or 10A D curve maximum

Leave slacks on cables of all electrical devices



Special brake rectifier
Replace with an identical one



		400V 3-phase		230V 3-phase	
Doors	Motors	Adjustment	Range	Adjustment	Range
V3010	0.37kW	1.2A	1-1.6A	2.1A	1.6-2.5A

Power

01/01/2021
DATE

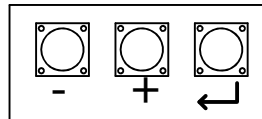
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33803 Steinhagen

ELECTRICAL
DEPARTMENT

AKE 370 M (M-I)

J1	GND
	GND
J2	0V
	230V
	400V
J3	N.R
	N.R
J4	400 : L3
	400 : L2/230 : Ph
	400 : L1/230 : N
J5	W
	V
	U
J10	31 OPTION3
	30 OPION3
	29 OPTION2
	28 OPTION2
	27 OPTION1
	26 OPTION1
J9	25 +12Vdc
	24 GND
	23 24Vac
	22 0Vac
	21 24Vac
	20 24Vac
J8	19 0Vac
	18 0Vac
	17 A URG
	16 A URG
	15 +12Vdc
	14 GND
J7	13 SF2
	12 SF1
	11 SH
	10 COM
	9 FCD SUP
	8 FDCF
J6	7 FDCO
	6 COM
	5 FERM
	4 OUV
	3 OUV
	2 STOP
J6	1 COM

TBC (Time Before Closing) Setting



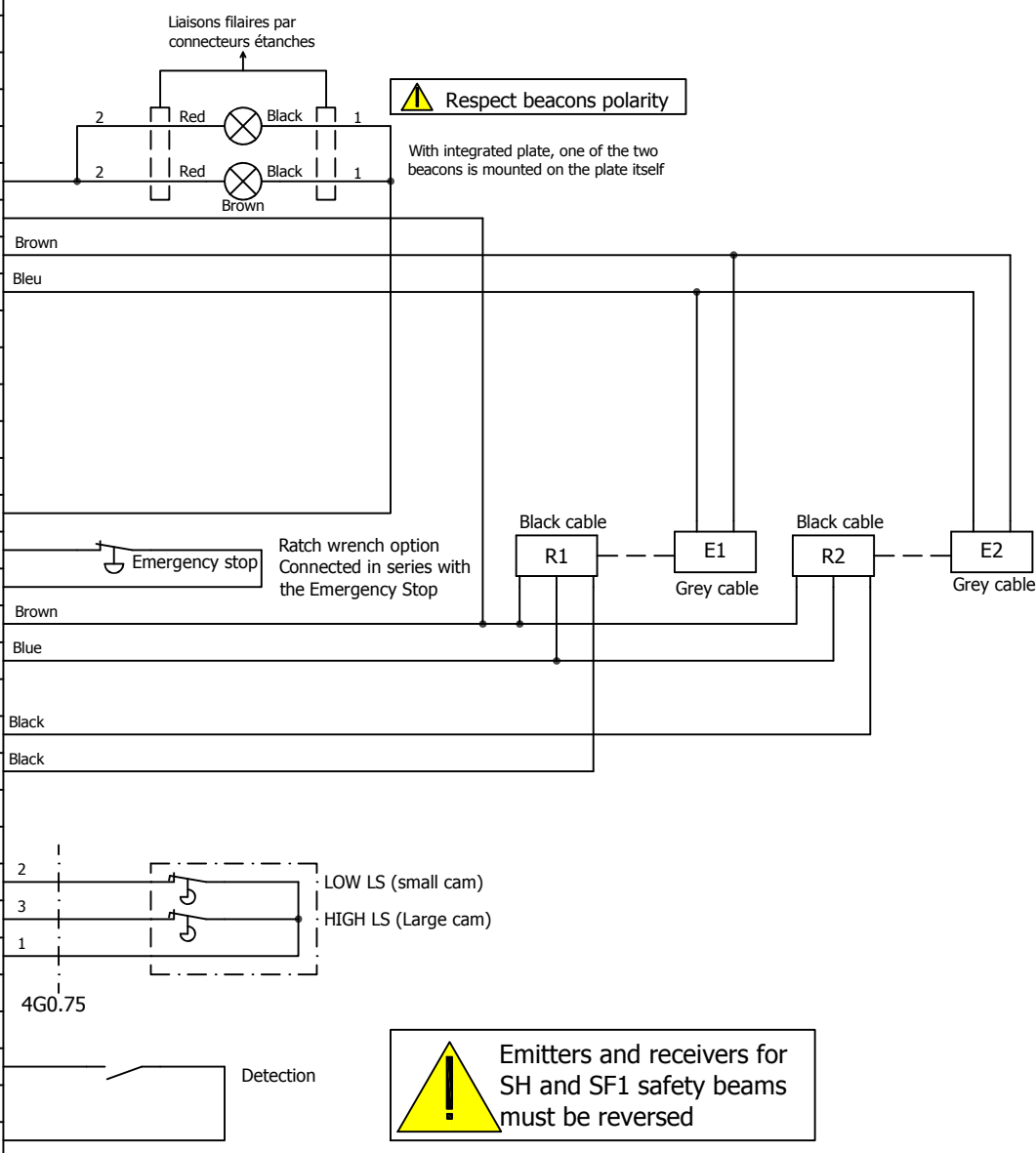
-Press + for 2 seconds

-Set the TBC with - and +

-Valid with ←



The 12V DC output is only to power the SH and SF1 safety beams and the 2 orange beacons
The max power output of the 24V AC output is 20VA



Control

01/01/2021
DATE

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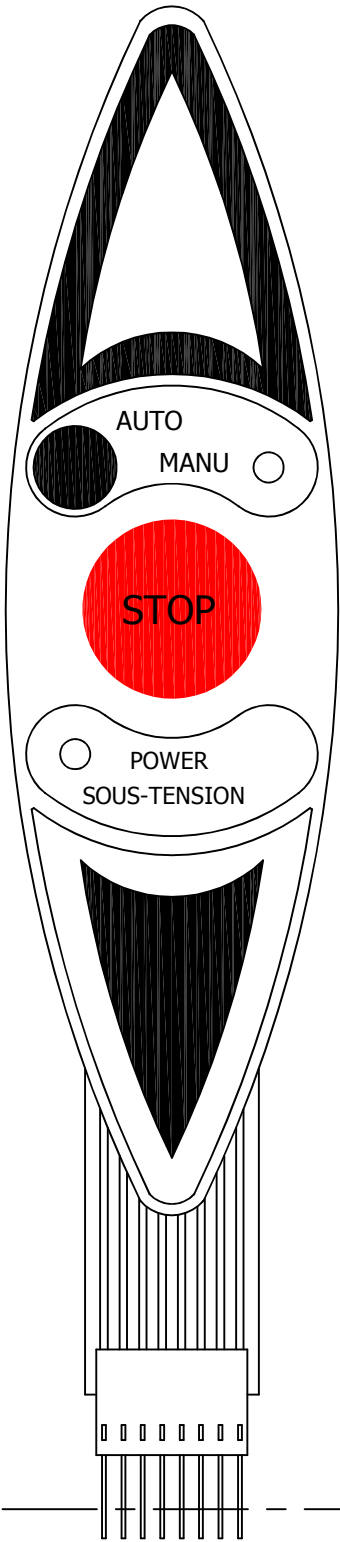
ELECTRICAL
DEPARTMENT



Keypad side, visible pins
from the same side on keypad
and controller connectors



Carde side with visible pins
on the control panel plug
external side of the card



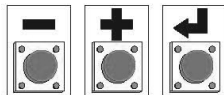
Keypad connectors of AKE 370 M (M-I) card

KEYPAD
□□□□□□□□ H1

STARTINDUS

Doc 19.1.a
N° 283
ERF
02-12-11

Description of menus



Menu home page

The **START-INDUS** card is programmed using only the three programming buttons and the display.

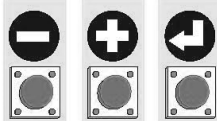
When the control cabinet is in standby (display shows "Waiting for command" or display is off), the button can be used to access all configuration menus.

Pressing the or will move you around the display, there are seven possible choices:

- CONFIGURATION
- OPERATION
- DIAGNOSTICS
- INPUTS
- FACTORY MENU
- CARD INFO
- UTILISATION

Press the button to go to the desired menu

Using the programming buttons



CONFIRM: Goes to programming mode and lets you select the parameter to be modified and to CONFIRM the modification. When not in "Use" mode, pressing and holding the CONFIRM button for 3 seconds will exit the menu while saving the parameter changes, it will take you

(+) button: This button lets you scroll through the settings and increase their value (e.g. a timer value). In OPERATION mode, the (+) controls door opening (dead man)

(-) button: This button lets you scroll through the settings and decrease their value (e.g. a timer value). In OPERATION mode, the (-XXXX) controls door closing (dead man)

Password



You can only access the CONFIGURATION, INPUTS and FACTORY menus after entering a Password.

The cursor flashes over the number to be entered.

Press or to change the value, then press to change the digit.

The program will authorise access to the desired menu after you have correctly entered the last digit.

If it is not, the screen will display "Password incorrect" and you will be taken back to the menu home page.

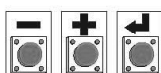
STARTINDUS

Doc 19.1.a
N° 283
ERF
02-12-11

Use in operation mode

OPERATIONS

Operation mode gives you override control of the door using the card's programming buttons. Opening and Closing safety systems are ignored. The limit switches and outputs remain active however. Operation mode therefore allows you to adjust the motor run and to operate the door even when a safety system is faulty.



Exiting operation mode
Force open
Force close

DIAGNOSTICS

The diagnostics mode gives you real-time control over all the card inputs and lets you check whether the contacts are open or closed.

Scroll through the inputs using the (+) and (-) buttons. The status of each input is shown by a pictogram on the display. To exit diagnostics mode, move down the display to BACK and

confirm, or press and hold the CONFIRM button for 3 seconds.



Input highlighted = contact active
example: "Stop" contact open



Input highlighted = contact active
example: "Open command" contact closed

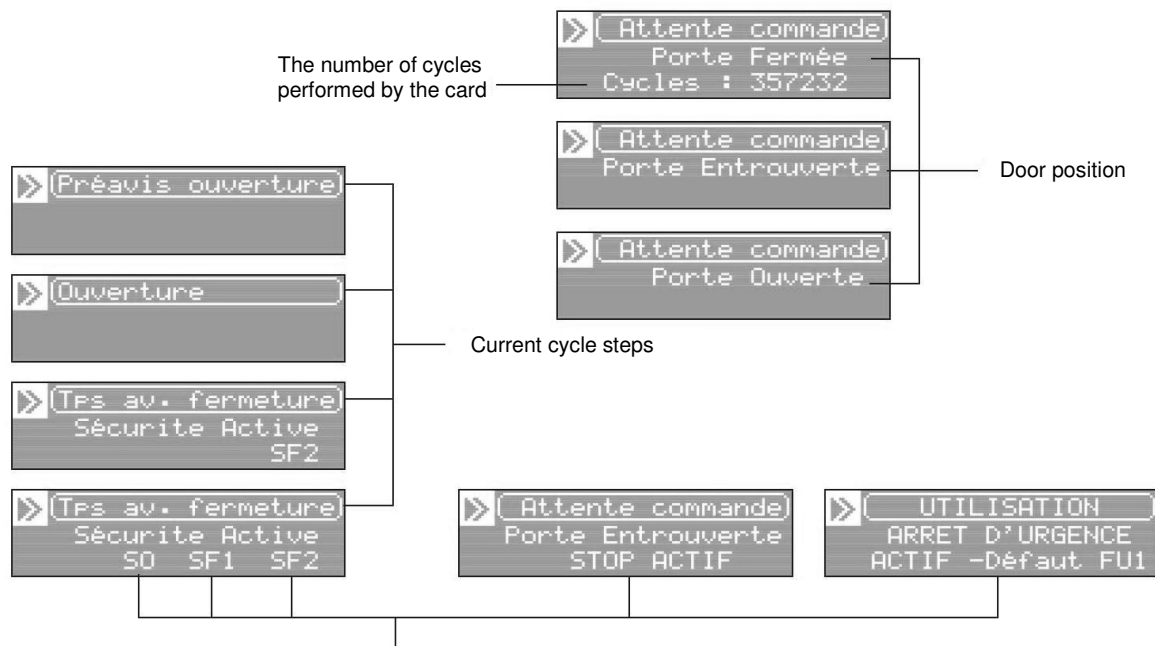
STARTINDUS

Doc 19.1.a
N° 283
ERF
02-12-11

Messages displayed during



When the card is in use, all steps of the operation cycle are clearly displayed in text form.



Safety systems active (OS = opening safety system / CS1 or CS2 = closing safety system N°1 or N°2)
Note: By default, the Opening Safety system input corresponds to the TS (Top Safety) terminal.

Lists of major faults requiring intervention



This message indicates that the emergency stop system has been triggered or that fuse F1 is defective. (the 12 and 14V outputs are cut)



CARD INFO MENU



This displays the program version and the card serial number.

DISPLAY STANDBY



The display will turn off 2 minutes after the door has been closed.
Press any of the 3 programming buttons or give the door a control command to wake it up.

11 - ADJUSTMENTS

11.1 TS-CS1 CLOSURE safety photocells.

As the photocells are emitters and receivers they are automatically aligned.
In the event of problems, see the section on troubleshooting and diagnostics (Chapter 11)

11.2 LIMIT SWITCH.

See Chapter 9.8 for adjustment

11.3 SENSORS (automated opening command)

If necessary, adjust the opening sensors by following the manufacturer's depending on the surroundings, and at the customer's request.

12 - CHECKS

12.1 FOR STAINLESS STEEL DOOR

CHECK THAT BLACK PLASTIC CAPS HAVE BEEN PLACED ON ALL EXPOSED THREADS, PROVIDED WITH ACCESSORIES.

12.2 TS-CS1 closure safety photocells.

Check that they are aligned and that the safety photocells operate correctly when closing.

12.3 Flashing beacons.

Check that the 2 flashing beacons operate correctly when the door is in motion and that they warn that the door is about to open beforehand.

12.4 Sensors (automated opening command)

Check that all sensors are working correctly.

12.5 Braking.

Make sure that the brake "clicks" as it is released when the door starts to move and as it engages when the door stops.

Also make sure there is no slippage on stopping and reversal.

13 - TROUBLESHOOTING AND DIAGNOSTICS

The door is not working

- No electrical power (see indicator light on control panel)
- Emergency stop button on the control panel has been pressed
- Brake is not connected in the motor terminal box (the motor is disabled)
- Fuse problem on the STARTINDUS card
- Problem with the motor's magneto-thermal circuit-breaker.
- The door is in manual mode - Switch to Auto

The motor turns but the curtain does not move

- Transmission problem (Belt / Pulley)

The motor turns in the wrong direction

- Reverse two of the three phases of the power supply

The curtain does not descend

- Safety photocells activated - something is obstructing one of the beams
- Problem with the automatic re-close timer
- Faulty safety system - Photocells not aligned or dirty
- Limit switch problem
- Close command incorrectly connected or faulty
- Emergency stop button on the control panel has been pressed
- The door is in manual mode - Switch to Auto

The curtain does not stop at the end of the run when opening or closing

- The top and/or bottom limit switches are incorrectly set
- Mechanical fault in the limit switch or motor brake.

The curtain does not stop when the safety beams are crossed

- Do not use the door and contact Hörmann

14 - END OF INSTALLATION

Installation and wiring of the door are now complete.
The installation complies with all regulations.

Procedures:

- ❑ Clean the door (curtain + Frame)
- ❑ Remove waste materials
- ❑ Remove packaging
- ❑ Check that a CE and EN 13241-1 standard conformity label is attached to the frame with adhesive.
- ❑ Give the operation and maintenance manual to the customer (Red book)
 - Explain the operation of the door in Auto and Manual modes.
 - Explain the integrated controller or the remote control unit (touch keypad + emergency stop)
 - Operation of open Commands
 - Operation of the chosen options
- ❑ Give the installation manual to the customer
- ❑ Have him sign the site completion certificate which was sent to you and return it to us
- ❑ (If possible, include a photo of the completed installation).

We thank you for following the installation steps and procedures and for complying with the installation quality Charter.

Hörmann