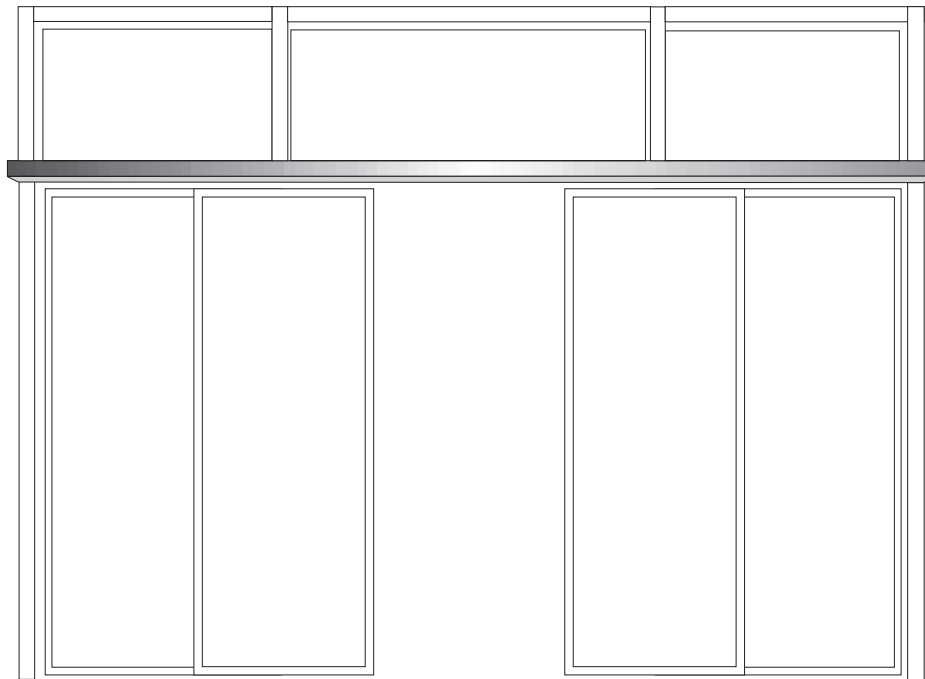




Automatic sliding doors

Door controllers

DCU1-NT

DCU1-2M-NT

EN Wiring diagram

Contents

1	Introduction.....	4
1.1	Symbols and illustrations.....	4
1.2	Validity	4
1.3	Product liability	4
1.4	Reference documents.....	5
2	Basic safety notes	5
2.1	Intended use.....	5
2.2	Safety notes	5
2.3	Safety-conscious working	6
2.4	Installation information.....	6
2.5	Inspection of installed system	6
2.6	Disposal of the door system.....	7
3	Abbreviations.....	8
4	Electrical data.....	10
5	Safety sensor "close"	10
5.1	Active infrared detector and radar movement detector GC 363 R.....	11
5.2	Active infrared detector and self-monitored radar movement detector GC 363 SF.....	12
5.3	Active infrared detector GC 339.....	13
5.4	Active infrared detector and radar movement detector GC 365 R.....	13
5.5	Active infrared detector and radar movement detector GC 365 SF.....	14
5.6	Active infrared detector GC 341	14
5.7	Active infrared sensor push button AIR 30	15
5.8	1-channel photoelectric barrier GZ 470 V	15
5.9	2-channel photoelectric barrier GZ 472 V	16
6	Safety sensor "open"	16
6.1	GC 339 active infrared detector	17
6.2	Active infrared detector GC 341	18
6.3	Active infrared sensor push button AIR 30	18
7	Break-out doors.....	19
7.1	Break-out sensor	19
7.2	Break-out sensor and safety sensor "open"	19
8	Series connection of safety sensors	22
8.1	Safety sensor "close" (standard doors)	22
8.2	Safety sensor "close" (FR doors)	25
8.3	Protecting the sensor cable against short-circuit	28
9	Mechanical contact.....	29
9.1	Emergency shut-off switch without illumination.....	29
9.2	Emergency shut-off switch with illumination.....	29
10	Contact sensor inside.....	30
10.1	Standard doors	30
10.2	Doors on rescue routes	32
11	Contact sensor outside.....	33
11.1	GC 302 R radar movement detector	33
11.2	GC 304 R radar movement detector.....	33
11.3	Active infrared detector and radar movement detector GC 363 R.....	33

11.4	Active infrared detector and radar movement detector GC 365 R.....	33
11.5	Push buttons (potential-free contact)	33
11.6	Non-contact activation sensor GC 307+	33
12	Configurable inputs	34
12.1	Switch function	34
12.2	Wireless activation	34
12.3	Pharmacy opening	35
12.4	Emergency lock	35
12.5	Stop	36
13	WC control.....	36
13.1	Non-contact sensor GC 307+ WC	37
13.2	Elbow switches and indicator lamps.....	38
13.3	Signal horn	38
13.4	Emergency shut-off switch	38
14	Interlocking door system, vestibule.....	39
15	Mode of operation	39
15.1	Mechanical programme switch.....	40
15.2	Switching the mode of operation using push buttons or switches	40
15.3	Keypad programme switch	41
15.4	Display programme switch (DPS) with OFF switch.....	41
15.5	Reset function (DPS with OFF switch, TPS)	42
15.6	Blocking or releasing operation of TPS and DPS	42
16	Configurable outputs.....	43
16.1	PA1 (gong)	43
16.2	PA2 (fault, engine fan)	43
17	Mains connection	44
18	Locking mechanism.....	45
18.1	Toothed belt locking	45
18.2	Rod locking, electromechanical break axle.....	46
18.3	Lock A hook bolt lock.....	47
19	Rechargeable battery.....	47
20	Motor gear unit	48
21	Control.....	49
22	Commissioning and service	50
22.1	Production test	50
22.2	Commissioning.....	50
22.3	Service	53
23	Service menu	54
23.1	ST 220 service terminal.....	54
23.2	Display programme switch DPS.....	65
24	Error messages	72
24.1	Display programme switch/service terminal ST 220	72
24.2	Keypad programme switch	73

1 Introduction

1.1 Symbols and illustrations

Warning notices

In these instructions, warning notices are used to warn against material damage and injuries.

- ▶ Always read and observe these warning notices.
- ▶ Observe all measures marked with the warning symbol and warning word.

Warning symbol	Warning word	Meaning
	DANGER	Danger to persons. Non-compliance will result in death or serious injuries.
	WARNING	Danger to persons. Non-compliance can result in death or serious injuries.
	CAUTION	Danger to persons. Non-compliance can result in minor injuries.

Further symbols and illustrations

Important information and technical notes are highlighted to explain correct operation.

Symbol	Meaning
	means "important information"; Information on avoiding material damage, understanding a concept or optimising the operation sequences
	means "additional Information"
	Symbol for an action: This means you have to do something. ▶ If there are several actions to be taken, keep to the given order.
	Escape and rescue route Symbol in a table or for a piece of information only applicable to escape and rescue route doors.
	Not an escape and rescue route Symbol in a table or relating to information which applies to standard doors without an escape and rescue route function.
	Conforms to DIN 18650/ EN 16005 Symbol in a table or relating to information on safety sensors that are standard-compliant.
	Does not conform to DIN 18650 / EN 16005 Symbol in a table or relating to information on safety sensors that are not standard-compliant.

1.2 Validity

Valid for devices from

- Hardware: DCU1-NT Rev. A0, DCU1-2M-NT Rev. A0
- Software: DCU1-NT from V5.0, DCU1-2M-NT from V5.0

1.3 Product liability

In accordance with the liability of the manufacturer for his products as defined in the German "Product Liability Act", the information contained in this brochure (product information and proper use, misuse, product performance, product maintenance, obligations to provide information and instructions) is to be observed.

Failure to comply releases the manufacturer from his statutory liability.

1.4 Reference documents

Type	Name
Additional wiring diagram	Automatic sliding doors DCU1-2M-NT, door controller DCU1-2M-NT for automatic sliding doors on rescue routes, FR-variants DUO, LL, RWS
User manual	Automatic sliding door systems
Faults and corrective measures	DCU1-NT/ DCU1-2M-NT electronic drive for automatic sliding doors
Cable plan	Automatic sliding door systems
Safety analysis	Automatic sliding doors
Pre-installation instructions	Of the respective drive system
Installation instructions	Of the respective drive system

The diagrams are subject to change without notice. Use only the most recent version.

2 Basic safety notes



GEZE GmbH is referred to as GEZE below.

2.1 Intended use

Refer to the installation instructions for the respective drive system.

Any other use is considered non-intended and will lead to the exclusion of all liability and warranty claims to GEZE.

2.2 Safety notes

- Intervention and modifications which influence the safety technology and functionality of the sliding door system may only be carried out by GEZE.
- Problem-free and safe operation assumes proper transportation, proper set-up and installation, qualified operation and correct maintenance have taken place.
- The relevant accident prevention regulations and other generally recognised safety-related or health & safety rules must be kept.
- Only original accessories, original spare parts and accessories approved by GEZE guarantee problem-free function of the sliding door system.
- The mandatory installation, maintenance and repair work must be performed by properly trained personnel authorised by GEZE.
- The country-specific laws and regulations are to be observed during safety-related tests.
- If unauthorised changes are made to the system, GEZE cannot be held liable in any way whatsoever for any resulting damage, and the statement of approval for use in escape and rescue routes is no longer valid.
- GEZE does not accept any warranty for combinations with third-party products.
- Only original GEZE parts may be used for repair and maintenance work.
- Connection to the mains voltage must be carried out by a qualified electrician or a qualified electrician for specified tasks. Carry out the mains connection and equipment earth conductor test in accordance with VDE 0100.
- Use an on-site 10 A overload cut-out as the line-side disconnecting device.
- Protect the display programme switch against unauthorised access.
- In compliance with Machinery Directive 2006/42/EC, a risk analysis must be performed and the door system identified in accordance with CE Marking Directive 93/68/EEC before the door system is commissioned.
- Observe the latest versions of guidelines, standards and country-specific regulations, in particular:
 - AutSchR "Guidelines on automatic sliding doors in escape and rescue routes"
 - EN 16005 "Power operated pedestrian doorsets – Safety in use – Requirements and test methods"
 - DIN 18650, Part 1 and Part 2 "Automatic door systems"
 - DIN VDE 100-600 "Installation of low-voltage systems - Part 6 Tests"
 - EN 60335-2-103 "Household and similar electrical appliances - Safety, Particular requirements for drives for gates, doors and windows"
 - Accident-prevention regulations, especially DGV V1 (BGV A1) "General regulations"
 - DGV V3 (BGV A3) "Electrical installations and equipment"
 - ASR A1.7 "Guidelines for doors and gates"
- Do not loosen screwed electric earthing connections.



The product should be installed or incorporated in such a way that effortless access to the product is guaranteed during any repairs and/or maintenance, and that any removal costs do not stand out of economic proportion to the value of the product.

2.3 Safety-conscious working

- ▶ Secure the workplace against unauthorised entry.
- ▶ Pay attention to the swivelling range of long system parts.
- ▶ Never carry out work with a high safety risk (e.g. installing the drive, cover or door leaf) while alone.
- ▶ Secure the cover/drive shrouding against falling.
- ▶ Secure non-fixed components to prevent them falling.
- ▶ Use only the cables specified on the cable plan provided. Cables must be shielded in compliance with the wiring diagram.
- ▶ Secure loose, internal drive cables with cable ties.
- ▶ Before working on the electrical system:
 - Disconnect the drive from the 230 V mains and secure it against being switched back on again. Check isolation from the power supply.
 - Disconnect the control from the 24 V rechargeable battery.
 - Note that if an Uninterruptible Power Supply (UPS) is used, the system will still be supplied with voltage despite the fact that the power supply is disconnected.
- ▶ Make sure of sufficient lighting.
- ▶ Use safety glass.
- ▶ Attach safety stickers to glass leaves.
 - Danger of injury with opened drive. Hair, clothing, cables, etc. can be drawn in by rotating parts.
 - Danger of injury caused by unsecured crushing, impact, drawing-in or shearing spots.
 - Danger of injury due to glass breakage. Always only use safety glass.
 - Danger of injury due to sharp edges on the drive and door leaf.
 - Danger of injury during installation through freely moving parts.

2.4 Installation information

- The drive is designed exclusively for use in dry rooms.
- ▶ Use only the cables specified on the cable plan provided. Cables must be shielded in compliance with the wiring diagram.
- ▶ Always use insulated wire-end ferrules for wire cores.
- ▶ Insulate wires that are not used.
- ▶ Secure loose, internal drive cables with cable ties.
- ▶ Observe the maximum permitted total power consumption required to supply the periphery.

2.5 Inspection of installed system

- ▶ Check the measures for protection and prevention of crushing, impact, shearing or drawing-in spots.
- ▶ Check the function of the presence sensors and movement detectors.
- The detection area of the movement detector in the direction of escape must cover the opening width (ÖW) × 1.5 m in front of the door.
- ▶ Check the protective earth connection to all metal parts that can be touched.



2.6 Disposal of the door system

- The door system is made up of materials that should be sent for recycling.
For this purpose, the individual components should be sorted corresponding to material type:
 - Aluminium (profiles, cover, deflection pulleys, sliding blocks, ...)
 - Iron (drivers, screws, ...)
 - Plastic
 - Electronic components (dead bolt, motor gear unit, control, transformer, sensors, ...)
 - Cables
 - Rechargeable battery
- ▶ The parts listed should be handed in to communal collection points or be disposed of via a scrap recycling company
- Rechargeable batteries and batteries contain pollutants and heavy metals.
- ▶ Rechargeable batteries and waste batteries should be handed in to communal collection points or retailers.
- The rechargeable battery for the drive is a plug-in type and connected to the control; it can be removed easily by loosening two fixing screws.



Information regarding the German Battery Directive:

(Applicable in Germany and in all other member states of the European Union as well as in other European countries, together with the countries' own provisions for a separate waste battery collection system.)



In accordance with the German Battery Directive, we are obliged to inform you of the following in connection with the sale of batteries or rechargeable batteries respectively in connection with the delivery of devices containing batteries or rechargeable batteries: Rechargeable batteries and batteries must not be disposed of with household waste. Disposal with household waste is expressly forbidden according to the German Battery Directive. As the final consumer, you are bound by law to return waste batteries and rechargeable batteries. Please return waste batteries and rechargeable batteries to a communal collection point or retailer.

Following use, you may return any batteries or rechargeable batteries received from us by post. The address is: GEZE GmbH, Incoming Goods, Reinhold-Vöster-Str. 21-29, 71229 Leonberg/Germany.

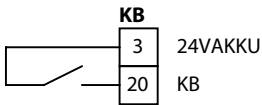
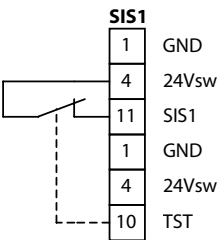
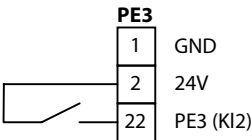
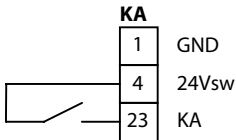
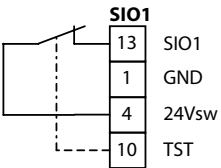
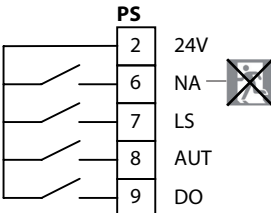
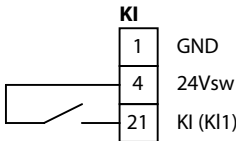
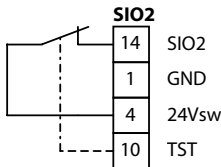
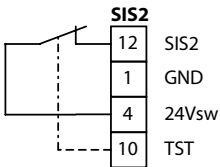
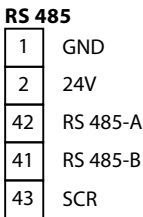
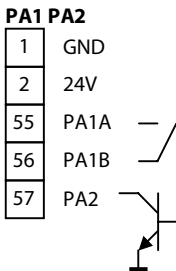
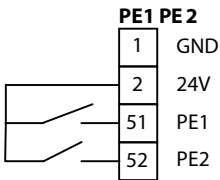
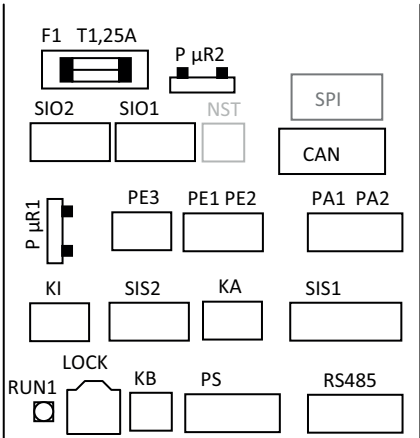
3 Abbreviations

Wire colours

BN	brown	GN	green	OG	orange	TQ	turquoise
BK	black	GY	grey	PK	pink	VT	violet
BU	blue	YE	yellow	RD	red	WH	white

Connections, terminals and plugs

AIR	Active infrared detector	MPS	Mechanical programme switch	ST 220	Service terminal ST 220
APO	Pharmacy opening	NA	Night mode	STG	Fault
AU	Automatic	N.C.	Not assigned	SYNC	Synchronisation
DO	Hold open	NC	Normally closed contact	TEMP	Temperature sensor
DPS	Display programme switch	NO	Normally opened contact (normally open)	Test	Test input
ENC	Incremental encoder	NOTVER	Emergency lock	TPS	Keypad programme switch
GND	Reference potential	OFF	Off	TST	Test signal safety sensors
IR	Infrared	ÖW	Opening width	ULKD	Unlocked
KA	Contact sensor outside	PA	Programmable output	+UB	Supply voltage +
KB	Mechanical contact	PE	Programmable input	-UB	Supply voltage –
KI	Contact sensor inside	PROG	Programming interface	24V	Supply voltage for external devices (load at the terminals 24V and 24Vsw together maximum 1 A)
LK	Luster terminal	PS	Programme switch	24VAKKU	Supply in event of power failure, max. 20 mA
LCK_A	Locking mechanism, A	RBM	Radar movement detector	24Vsw	Switchable supply voltage for external devices (load at the terminals 24V and 24Vsw together maximum 1 A)
LCK_B	Locking mechanism, B	RUN	Status display		
LKD	Locked	RS485	Communication signal to DPS, ST 220		
LS	Exit only	SABO	Sabotage		
M1A	Motor gear unit 1, A	SCR	Screen		
M2A	Motor gear unit 2, A	SHLD	Shield		
M1B	Motor gear unit 1, B	SIO	Safety sensor “open”		
M2B	Motor gear unit 2, B	SIS	Safety sensor “close”		



4 Electrical data

Mains connection 230 V

- Mains voltage 230 V AC –15 %, + 10 %
- Frequency 50 Hz

110 V mains connection

- Mains voltage 110 V AC –10 %, + 10 %
- Frequency 60 Hz

Slimdrive and ECdrive variants

- Capacity rating 140 W
- Primary fuse 2 A slow-blow, 5 x 20 mm

Powerdrive variants

- Capacity rating 200 W
- Primary fuse 2.5 A slow-blow, 5 x 20 mm

General electrical data

- Protection class I
- Mains connection Fixed connection (installation cable)
- Secondary voltage (transformer) 33 V AC (46 V DC)
- Control voltage for external components 24 V DC ±10 %
- Output current control voltage 1 A
- Fuse protection <24 V 1.25 A slow-blow, 5 x 20 mm
- Temperature range –15 °C ... +50 °C
- IP rating IP20

5 Safety sensor “close”

- Up to four safety sensors “close” can be connected (terminals SIS1, SIS2, SIO1 and SIO2).
- During detection, the output of the safety sensor “close” is open. GND is applied to the input.

Parameter setting DCU1-NT for safety sensors

- Set the contact type for the terminal used:
 - With DPS: *S1, S2, S3* or *S4* to *Q2*
 - With ST 220: “SI1”, “SI2”, “SI3” or “SI4 contact type” to “normally closed contact”
- Set the function for detection (see chapter 23.1.4 Service menu ST 220 and chapter 23.2.2 Service menu DPS):
 - With DPS: *F1, F2, F3* or *F4*
 - With ST 220: “SI1”, “SI2”, “SI3” or “SI4 function”



- ▶ Heed the installation instructions for the respective sensors.



In order to safeguard the closing process in compliance with EN 16005 and DIN 18650, an active infrared detector must be installed on both the inside and outside. The detection area of the light curtain on the floor must cover the whole door width.

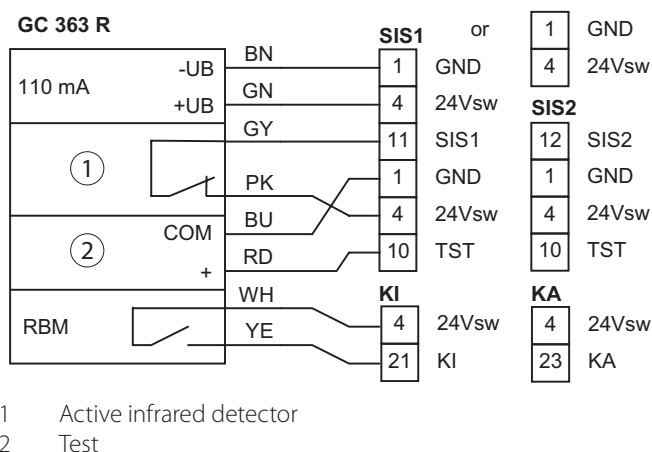
5.1 Active infrared detector and radar movement detector GC 363 R



DIN 18650
EN 16005

Installation height max. 3500 mm

- GC 363 R black, mat. no. 151237
- GC 363 R according to RAL, mat. no. 151238
- The GC 363 R contains an active infrared detector and a direction-sensitive radar movement detector.



Parameter setting GC 363 R

- Output configuration:
RAD: OUTPUT, AIR: OUTPUT to 1 (NO/NC)

Parameter setting DCU1-NT for activations

- Set parameter Ci (contact sensor inside, contact type) or Co (contact sensor outside, contact type) to 01 (normally opened contact).

5.2 Active infrared detector and self-monitored radar movement detector GC 363 SF

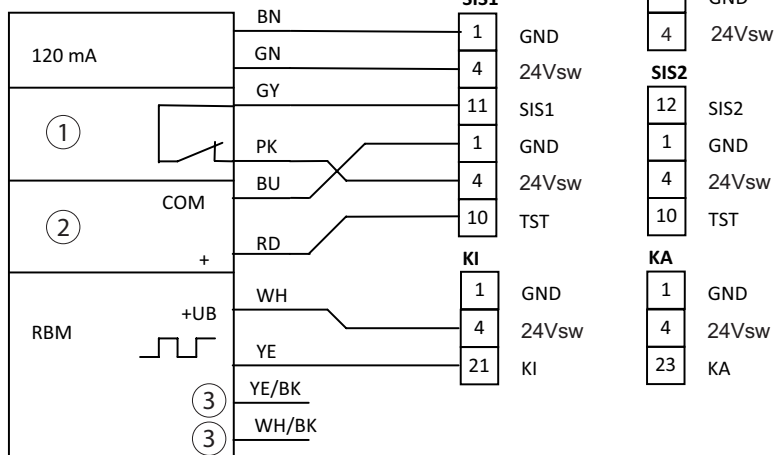


DIN 18650
EN 16005

Installation height max. 3500 mm

- GC 363 SF black, mat. no. 151239
- GC 363 SF according to RAL, mat. no. 151240
- The GC 363 SF contains an active infrared detector and a self-monitored, direction-sensitive radar movement detector with frequency output (100 Hz).
- ▶ Set the detection area and sensitivity of the radar movement detector as per AutSchR:
- Detection area = $\ddot{O}W \times 1.5 \text{ m}$,
Speed greater than 10 cm/s.

GC 363 SF



- 1 Active infrared detector
- 2 Test
- 3 Not used

Parameter setting GC 363 SF

- Output configuration:
RAD: OUTPUT, AIR: OUTPUT to 6 (freq/NC)

Parameter setting DCU1-NT for activations

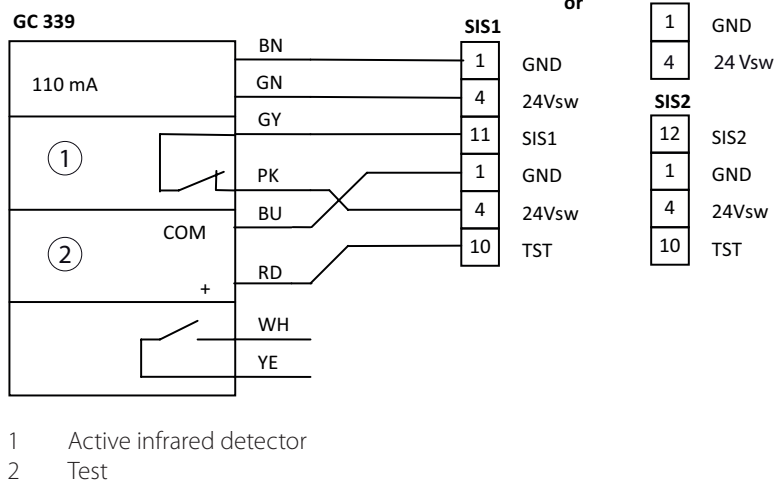
- Set parameter Ci (contact sensor inside, contact type) or Co (contact sensor outside, contact type) to 04 (frequency).

5.3 Active infrared detector GC 339



DIN 18650
EN 16005

- GC 339 black, mat. no. 151251
- GC 339 according to RAL, mat. no. 151252



Parameter setting GC 339

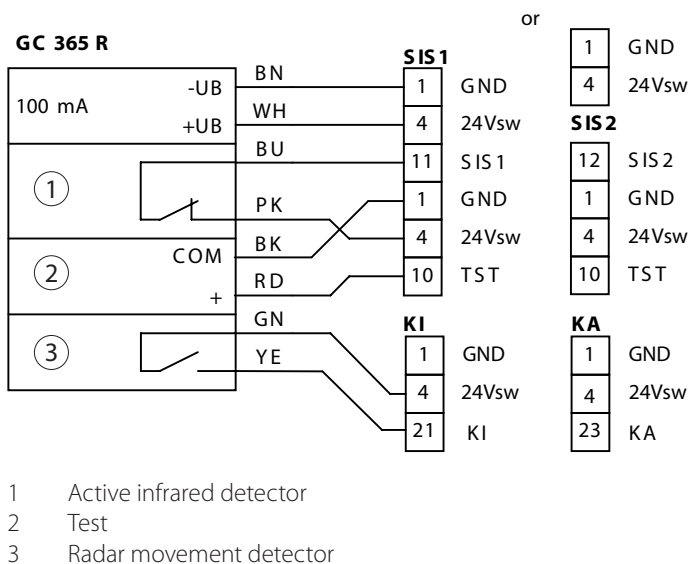
- Output configuration:
AIR: OUTPUT to 1 (NO/NC)

5.4 Active infrared detector and radar movement detector GC 365 R



DIN 18650
EN 16005

- GC 365 R, combined detector, black, mat. no. 160283



Parameter setting DCU1-NT for activations

- Set Ci (contact sensor inside, contact type) or Co (contact sensor outside, contact type) to 01 (normally opened contact).

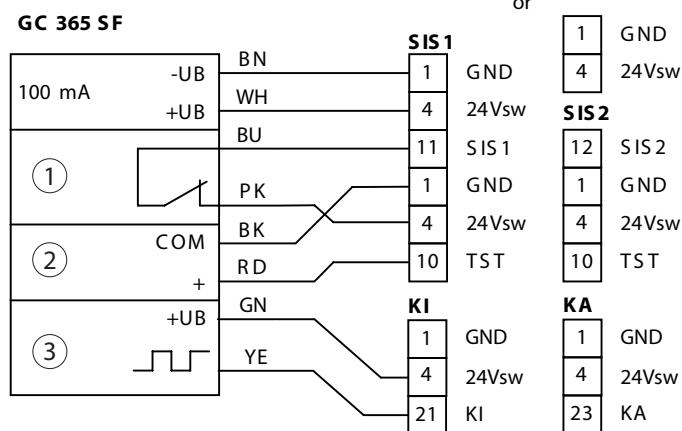
5.5 Active infrared detector and radar movement detector GC 365 SF



DIN 18650
EN 16005

- GC 365 SF black, combined detector
mat. no. 160284

GC 365 SF



- 1 Active infrared detector
- 2 Test
- 3 Radar movement detector

Parameter setting DCU1-NT

- Set Ci (contact sensor inside, contact type) or Co (contact sensor outside, contact type) to 04 (frequency).

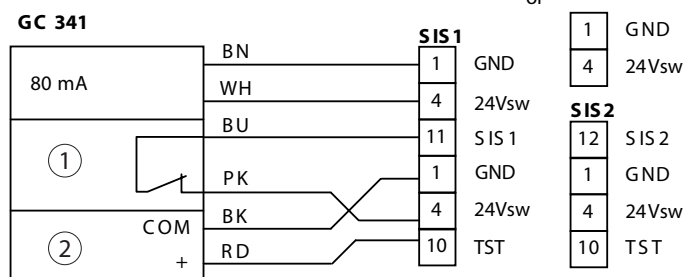
5.6 Active infrared detector GC 341



DIN 18650
EN 16005

- GC 341 active infrared detector, black,
mat. no. 160285

GC 341



- 1 Active infrared detector
- 2 Test

5.7 Active infrared sensor push button AIR 30



~~DIN 18650~~
~~EN 16005~~

- Installation height max. 2500 mm
- In order to safeguard the closing process in compliance with EN 16005 and DIN 18650, an active infrared detector must be installed on both the inside and outside. The detection area of the light curtain on the floor must cover the whole door opening width.

- AIR 30, mat. no. 072393
- Relay with free swing diode, mat. no. 103352

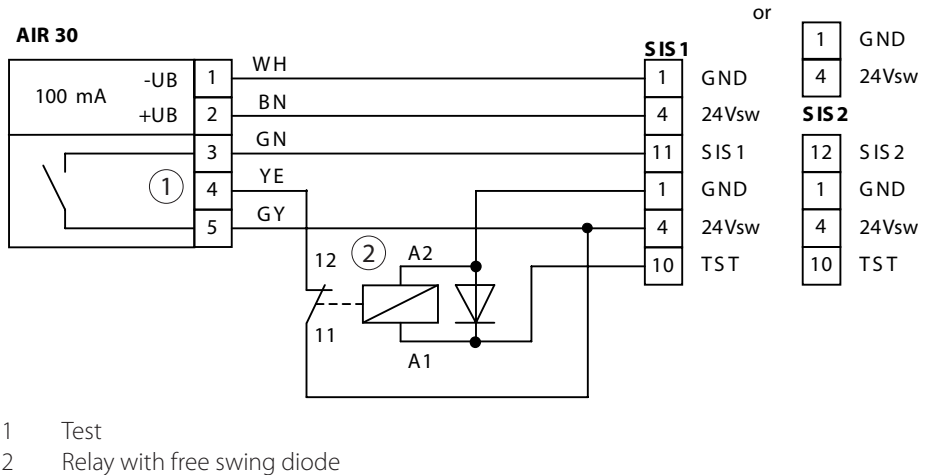


Illustration: with operating voltage switched off

- Only use the AIR 30 as an additional sensor for monitoring closing.
- Set the light/dark selector switch to (D) (setting dark-switching)
- Adjust the scanning range to 0.2 m above the floor using the adjustment screw.

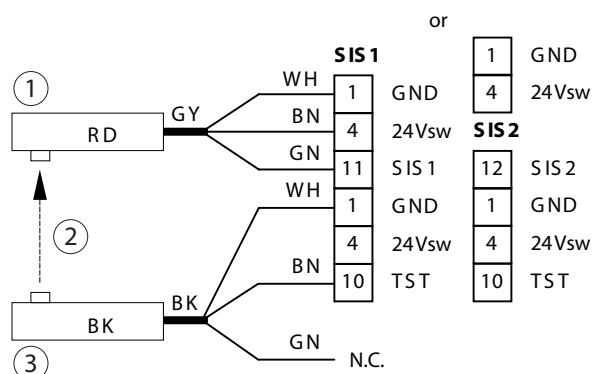
5.8 1-channel photoelectric barrier GZ 470 V



~~DIN 18650~~
~~EN 16005~~

In order to safeguard the closing process in compliance with EN 16005 and DIN 18650, an active infrared detector must be installed on both the inside and outside. The detection area of the light curtain on the floor must cover the whole door opening width.

GZ 470 V, mat. no. 112726



- | | | |
|---------------------------------------|---|----------------------|
| □ Installation 1.0 m above the floor. | 1 | GZ 470 V receiver |
| □ Current consumption GZ 470 V: 50 mA | 2 | Max. 5 m |
| | 3 | GZ 470 V transmitter |



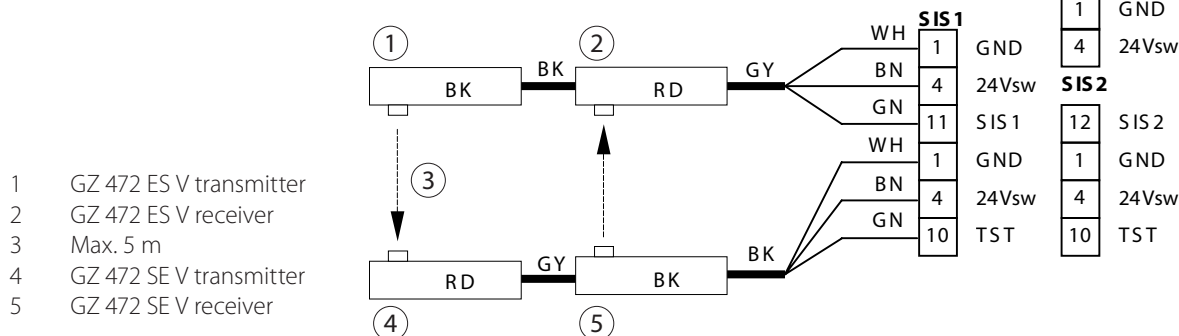
The side distance between the photoelectric barrier axis and the sliding panel level must not exceed 5 cm.

5.9 2-channel photoelectric barrier GZ 472 V

**DIN 18650**~~EN 16005~~

DIN 18650 requires a protection area in front and behind the leaf. The photoelectric barrier can only be used in addition to active infrared detectors.

GZ 472 V, mat. no. 112727



- Installation 0.2 m and 1.0 m above the floor respectively.
- Current consumption GZ 472 V: 70 mA



The side distance between the photoelectric barrier axis and the sliding panel level must not exceed 5 cm.

6 Safety sensor "open"



Check function and correct setting of the sensors during commissioning and service.

- Up to four safety sensors "open" can be connected (terminals SIO1, SIO2, SIS1 and SIS2).
- During detection, the output of the safety sensor "open" is open. GND is applied to the SIO1 and SIO2 inputs.

Parameter setting DCU1-NT for safety sensors

- ▶ Set contact type for terminals used:
 - With DPS: Set **53, 54, 51** or **52** to **02**.
 - ST 220: Set parameter "SI3", "SI4", "SI1" or "SI2 contact type" to "open".
- ▶ Set function for terminals used (see chapter 23.1.4 Service menu ST 220 and chapter 23.2.2 Service menu DPS):
 - Set DPS parameter **F3, F4, F1** or **F2**.
 - Set ST 220 parameter "SI3", "SI4", "SI1" or "SI2 function".



For doors in rescue routes:

If the safety sensor "open" is activated during opening, the door does not stop until the reduced opening width is reached. The reduced opening width must be larger than or the same size as the required escape route width (official building approval).



▶ Heed the installation instructions for the respective sensors.

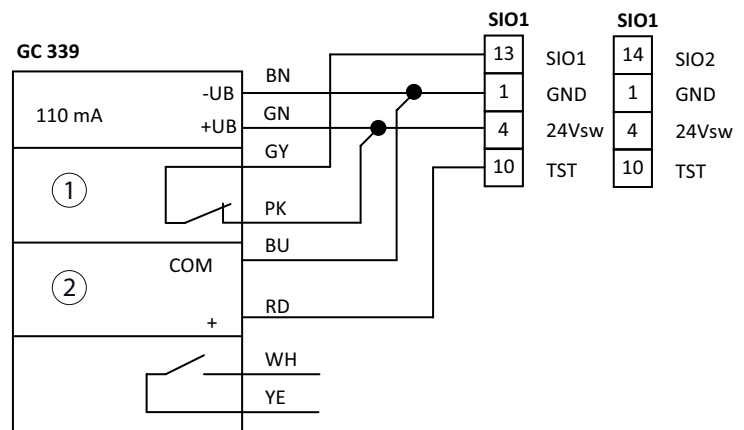
6.1 GC 339 active infrared detector



DIN 18650
EN 16005

Installation height max. 3500 mm

- GC 339 black, mat. no. 151251
- GC 339 according to RAL, mat. no. 151252
- Insulate unused wires (WH, YE).



- 1 Active infrared detector
- 2 Test

Parameter setting GC 339

- Output configuration:

AIR: OUTPUT

AIR width

to 1 (NO/NC)

For installation in open position right:

- Set AIR width to the right-hand sub-panel.



For installation in open position left:

- Set AIR width to the left-hand sub-panel.



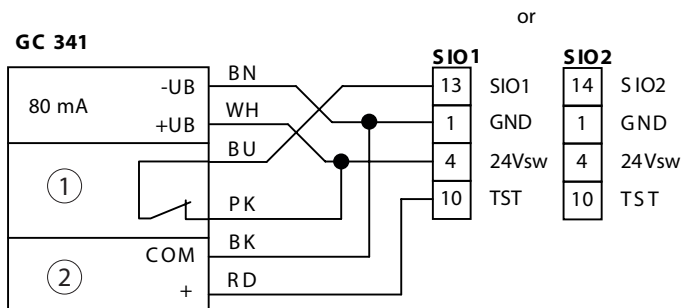
6.2 Active infrared detector GC 341



DIN 18650
EN 16005

Installation height up to 3500 mm

- GC 341 active infrared detector, black, mat. no. 160285



- 1 Active infrared detector
- 2 Test

- For further information see chapter 5.6 GC 341(SIS).

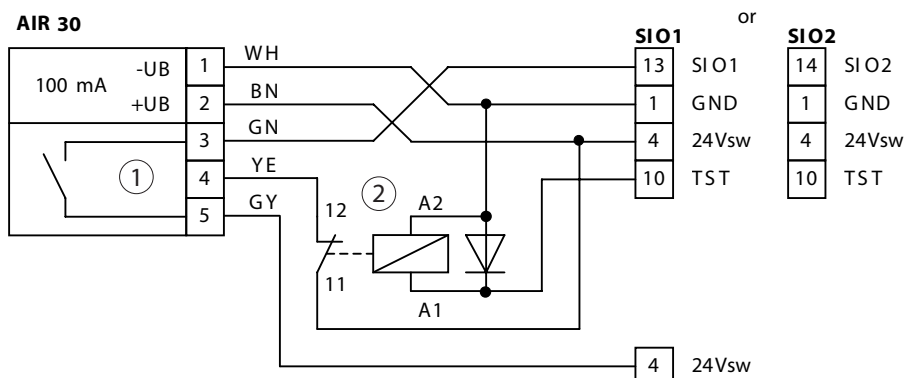
6.3 Active infrared sensor push button AIR 30



~~**DIN 18650**~~
~~**EN 16005**~~

In order to safeguard the closing process in compliance with EN 16005 and DIN 18650, an active infrared detector must be installed on both the inside and outside. The detection area of the light curtain on the floor must cover the whole door opening width.

- AIR 30, mat. no. 072393
- Relay with free swing diode, mat. no. 103352



- 1 Test
- 2 Relay with free swing diode

Illustration: with operating voltage switched off

- For further information see chapter 5.7 AIR 30 (SIS).

7 Break-out doors



- ▶ Before commissioning, set the drive type in the Service menu "Door parameters" "Drive type" (Slim-drive SL BO, ECdrive BO or TSA 360NT BO).
- ▶ Note the contents of the "Guidelines on automatic sliding doors in escape and rescue routes (AutSchR)":
 - The programme switch must be protected from unauthorised access e.g. by installing a key switch to block the programme switch.
 - The functions emergency lock, interlocking door system and vestibule are not permitted with automatic sliding doors on rescue routes.
 - The mode of operation setting "night mode" with timer or switch is not possible.
 - The function "pharmacy" is not available as a configurable input.



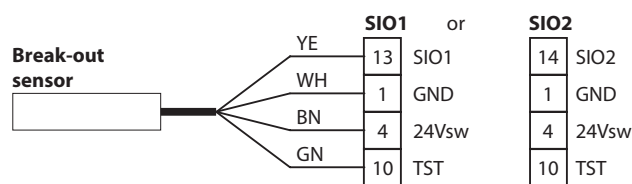
- ▶ Heed the installation instructions for the respective sensors.



- Break-out sensor, mat. no. 076114
- The break-out sensors monitor the position of the side-hung leaves. They are connected to the inputs SIO1 or SIO2 together with any safety sensors "open" that are available.
- When the break-out sensor is triggered, the door stops during opening and closing.
- Break-out sensors
 - SIO1 is configured automatically.
 - If used, SIO2 must be configured to contact type "normally closed contact" and function "break-out".
- When the side panel has been swung out, the break-out sensor output is open. GND is applied to the SIO1 and SIO2 inputs.

7.1 Break-out sensor

- With 1-leaf systems one break-out sensor is mounted (SIO1), any safety sensor "open" that is available is connected to SIO2.
- With 2-leaf systems two break-out sensors are mounted (inputs SIO1 and SIO2 of the control).



7.2 Break-out sensor and safety sensor "open"

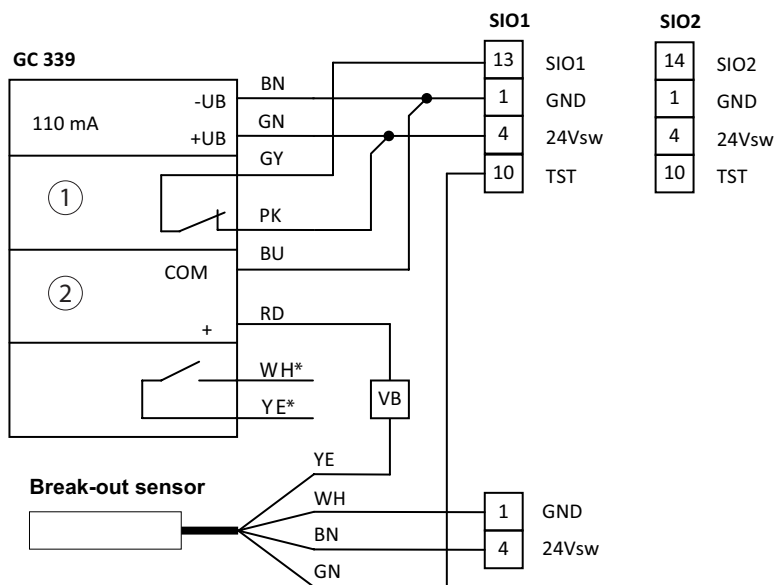
- Two break-out sensors and two safety sensors "open" can be connected (inputs SIO1 and SIO2 of the control).
- During detection, the output of the safety sensor "open" is open. GND is applied to the SIO1 and SIO2 inputs.
- When a break-out sensor or a safety sensor "open" is triggered, the door stops during opening and closing.

7.2.1 Break-out sensor with active infrared detector GC 339



DIN 18650
EN 16005

For further information see chapter 5.3
Active infrared detector GC 339.



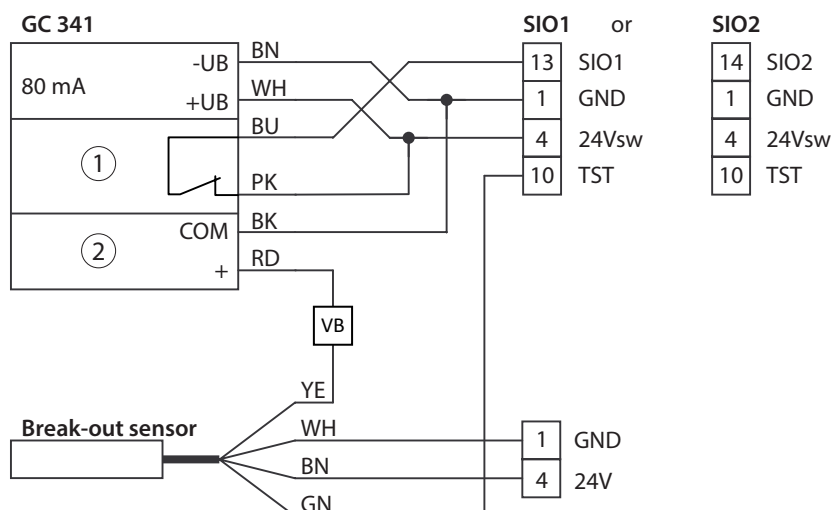
- 1 Active infrared detector
- 2 Test
- * Insulate unused wires (WH, YE)
- VB Connection of the wires and fixing of sensor cables
(see chapter 8.3 Protecting the sensor cable against short-circuit)

7.2.2 Breakout sensor with active infrared detector GC341



DIN 18650
EN 16005

Installation height up to 3500 mm



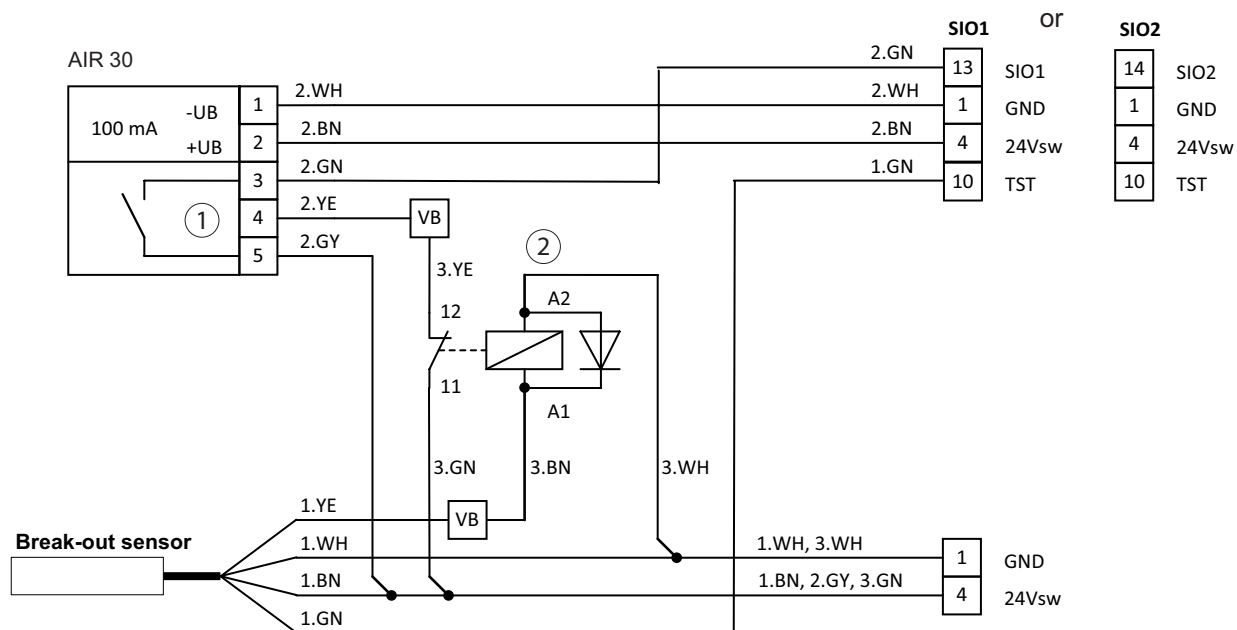
- 1 Active infrared detector
- 2 Test
- VB Connection of the wires and fixing of sensor cables
(see chapter 8.3 Protecting the sensor cable against short-circuit)

For further information see chapter 6.2 Active infrared detector GC 341.

7.2.3 Break-out sensor with active infrared push button AIR 30



~~DIN 18650~~
~~EN 16005~~



1 Test

2 Relay with free swing diode

VB Connection of the wires and fixing of sensor cables (see chapter 8.3 Protecting the sensor cable against short-circuit)

Illustration with operating voltage switched off

For further information see chapter 6.3 Active infrared sensor push button AIR 30

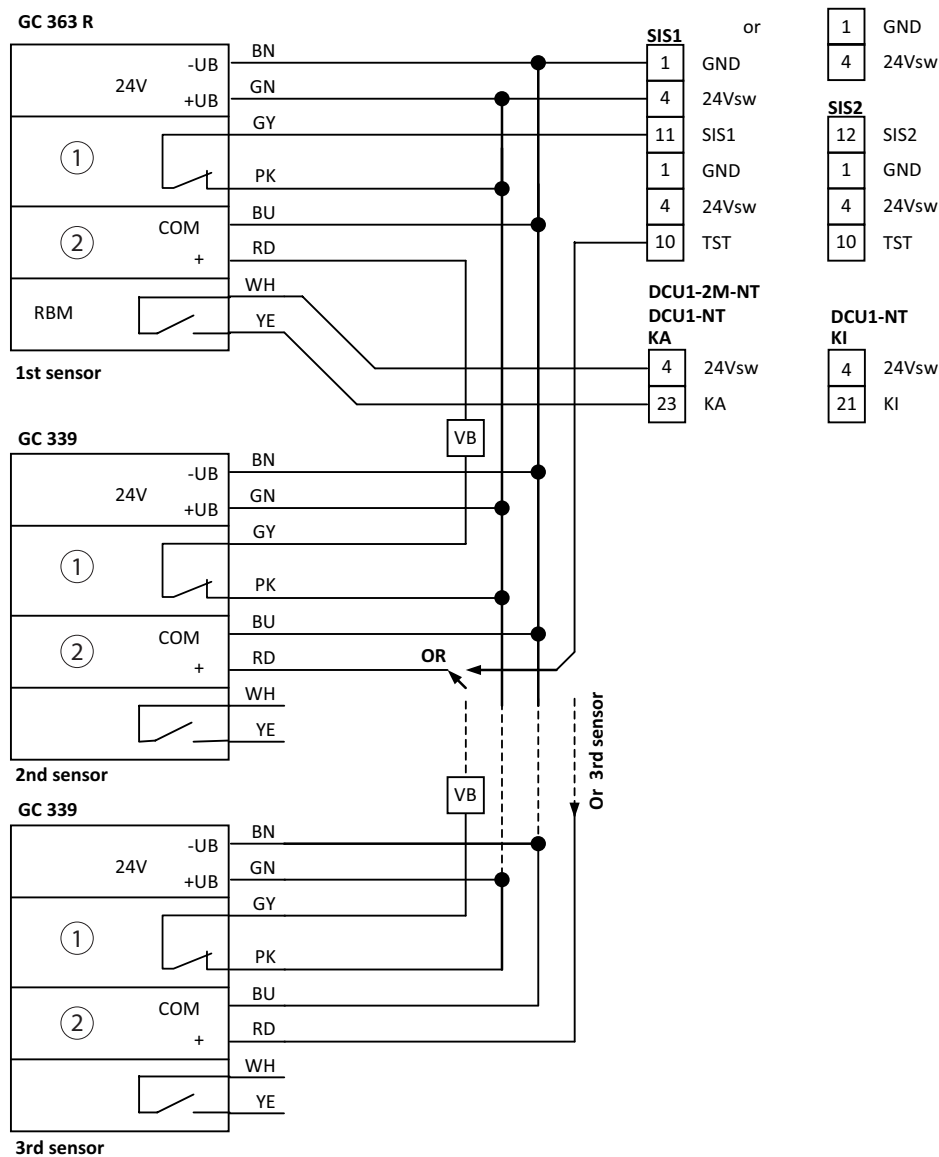
8 Series connection of safety sensors

8.1 Safety sensor "close" (standard doors)



DIN 18650
EN 16005

8.1.1 Active infrared detector GC 339 with safety/activation sensor GC 363 R



- 1 Active infrared detector
- 2 Test

VB Connection of the wires and fixing of sensor cables (see chapter 8.3 Protecting the sensor cable against short-circuit)

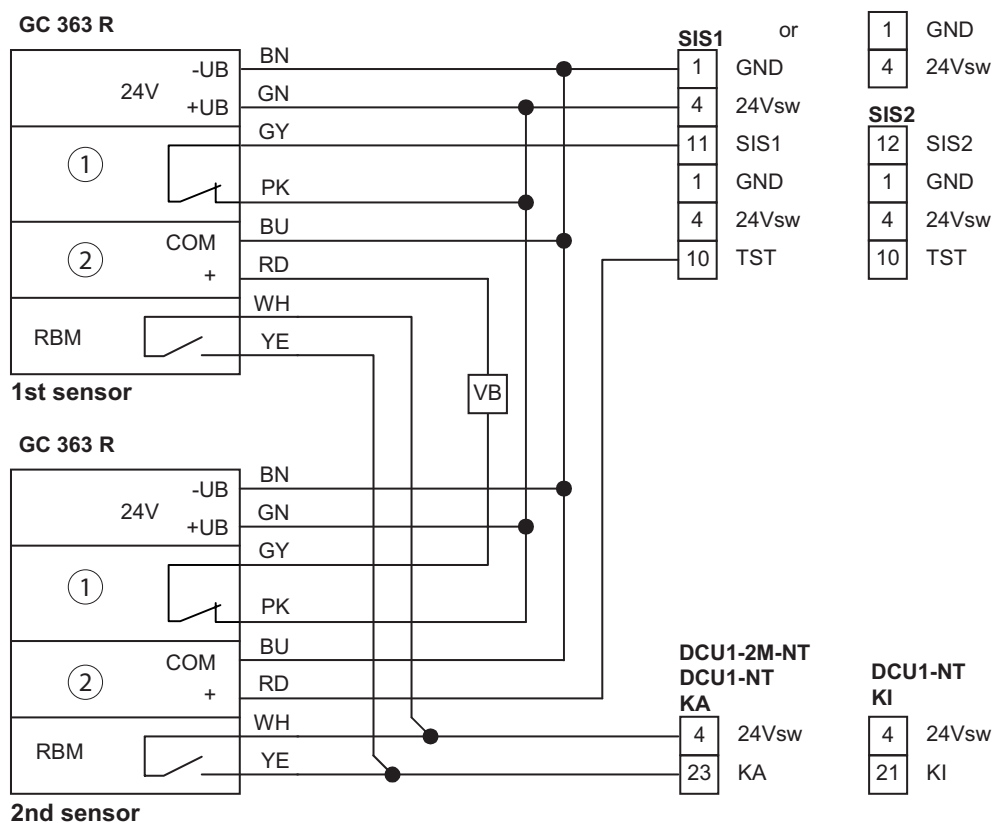
Parameter setting GC 363 R

- RAD: Output, AIR: Output to 1 (NO/NC)
Refer also to the notes on parameter setting in chapter 5.1 Active infrared detector and radar movement detector GC 363 R

Parameter setting GC339

- AIR: Output 1 (NO/NC)

8.1.2 Safety/activation sensors GC 363 R



1 Active infrared detector

2 Test

VB Connection of the wires and fixing of sensor cables (see chapter 8.3 Protecting the sensor cable against short-circuit)

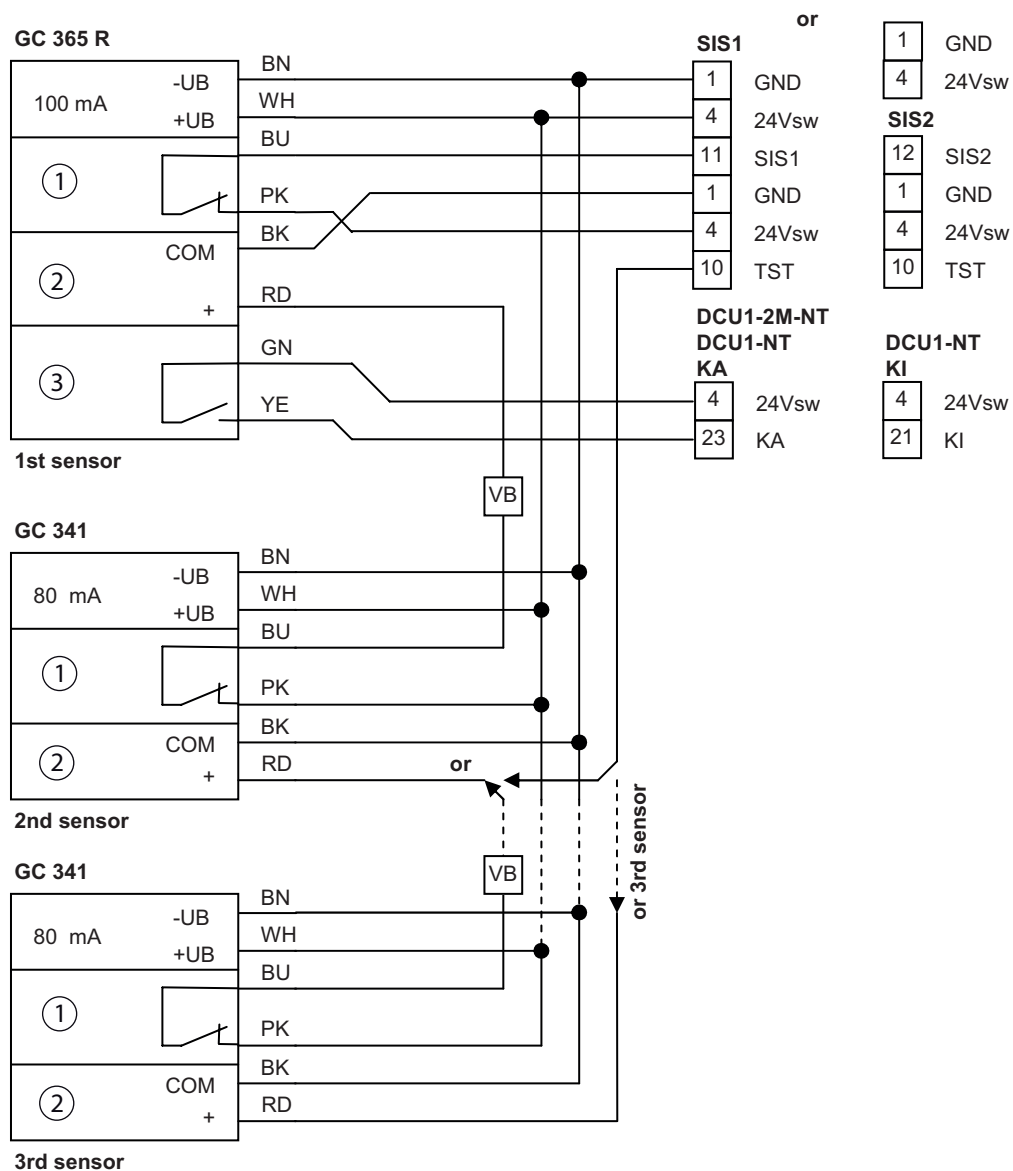
Parameter setting GC 363 R

- RAD: Output, AIR: Output to 1 (NO/NC)

Refer also to the notes on parameter setting in chapter 5.1 Active infrared detector and radar movement detector GC 363 R

8.1.3 Active infrared detector GC 341 with safety/activation sensor GC 365 R

For further information see chapter 5.4 Active infrared detector and radar movement detector GC 365 R

**Parameter setting DCU1-NT**

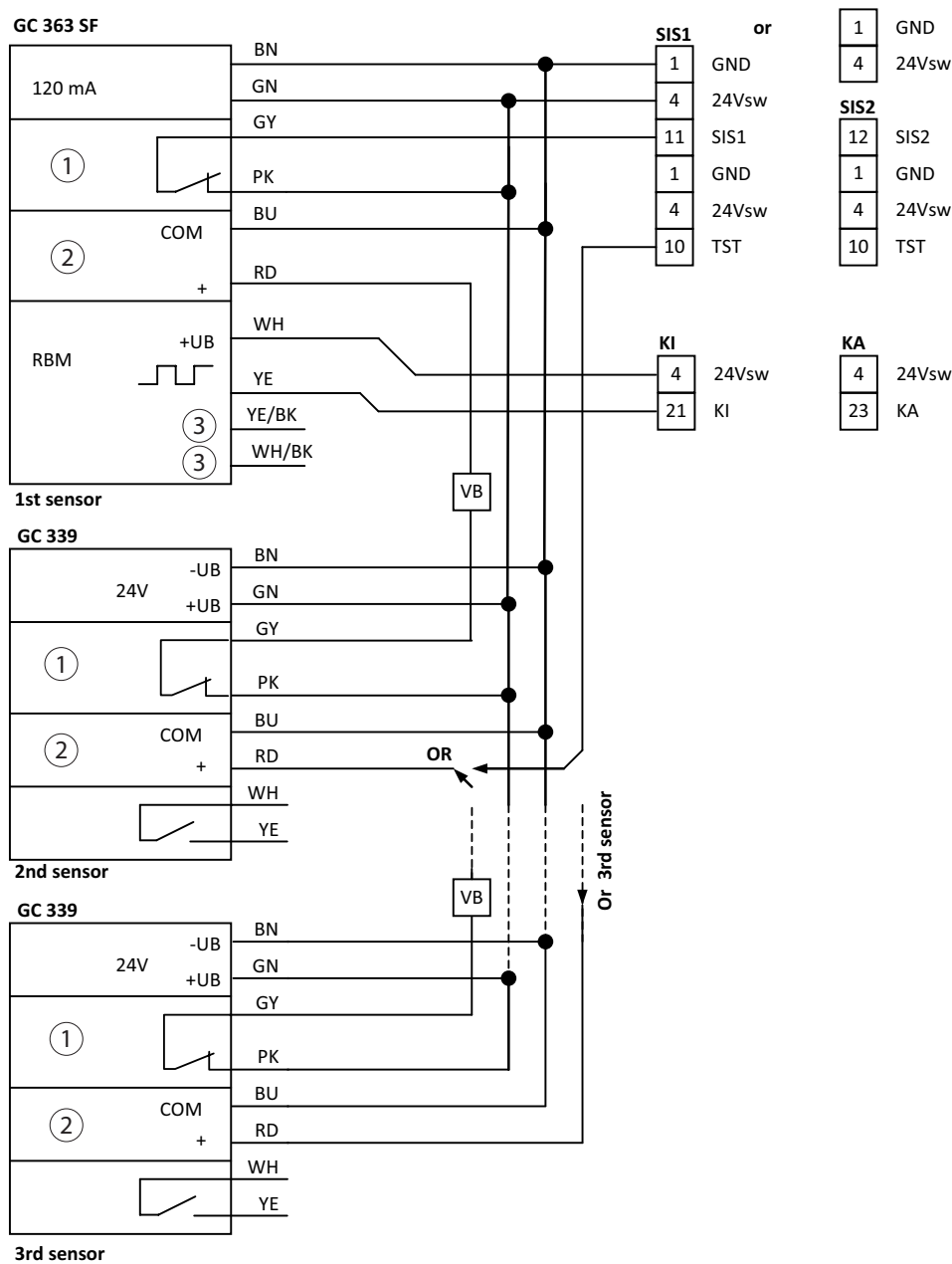
- Set Ci (contact sensor inside, contact type) or Co (contact sensor outside, contact type) to 01 (normally opened contact).

8.2 Safety sensor "close" (FR doors)



DIN 18650
EN 16005

8.2.1 Active infrared detector GC 339 with safety/activation sensor GC 363 SF



1 Active infrared detector

2 Test

3 Not used

VB Connection of the wires and fixing of sensor cables

(see chapter 8.3 Protecting the sensor cable against short-circuit)

Parameter setting GC 363 SF

- RAD: Output, AIR: Output to 6 (freq/NC)

Refer also to the notes on parameter setting GC 363 SF in chapter 5.2 Active infrared detector and self-monitored radar movement detector GC 363 SF

Parameter setting DCU1-2M-NT

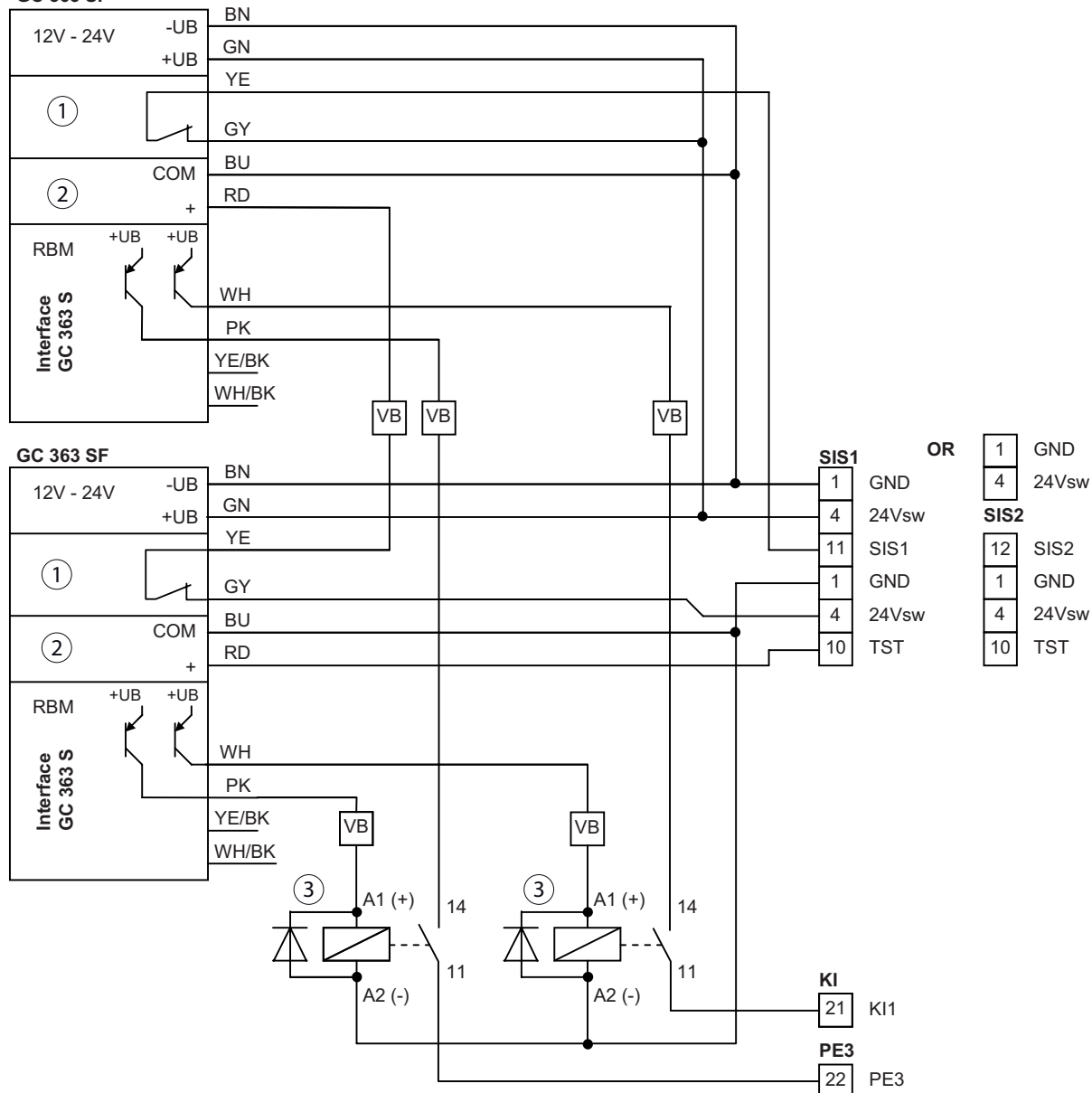
- Ci (contact sensor inside, contact type) or Co (contact sensor outside, contact type) to 04 (frequency).

8.2.2 Safety/activation sensor GC 363 SF

- Two interfaces GC 363 S and two relays are required for the series connection of two GC 363 SF.
- For further information see chapter 5.2 Active infrared detector and self-monitored radar movement detector GC 363 SF.

Set the parameters:

- Ci (KI contact type) to 02 (normally closed contact).
- E3 (PE3 function) to 22 (KI 2).
- Accessories:
 - Interface GC 363 S, mat. no. 151361
 - Relay with free-wheeling diode, mat. no. 103352

GC 363 SF

1 Active infrared detector

2 Test

3 Relay with free swing diode

Illustration: with operating voltage switched off

VB Connection of the wires and fixing of sensor cables (see chapter 8.3 Protecting the sensor cable against short-circuit)

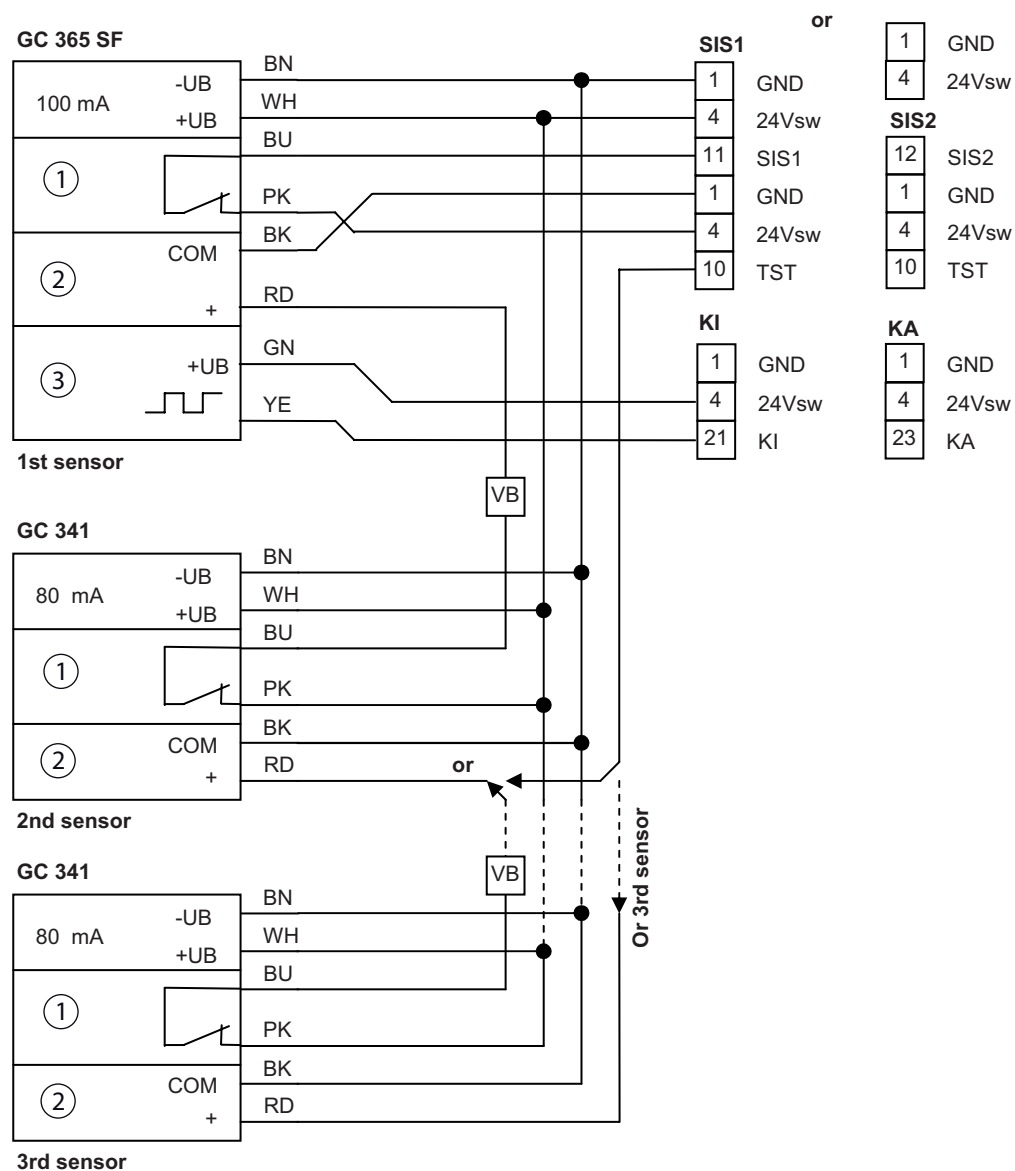
Parameter setting GC 363 SF

- RAD: Output, AIR: Output to 5 (current/NC)

Refer also to the notes on parameter setting GC 363 SF in chapter 5.2 Active infrared detector and self-monitored radar movement detector GC 363 SF

8.2.3 Active infrared detector GC 341 with safety/activation sensor GC 365 SF

For further information see chapter 5.5 Active infrared detector and radar movement detector GC 365 SF.



1 Active infrared detector

2 Test

3 Radar movement detector

VB Connection of the wires and fixing of sensor cables (see chapter 8.3 Protecting the sensor cable against short-circuit)

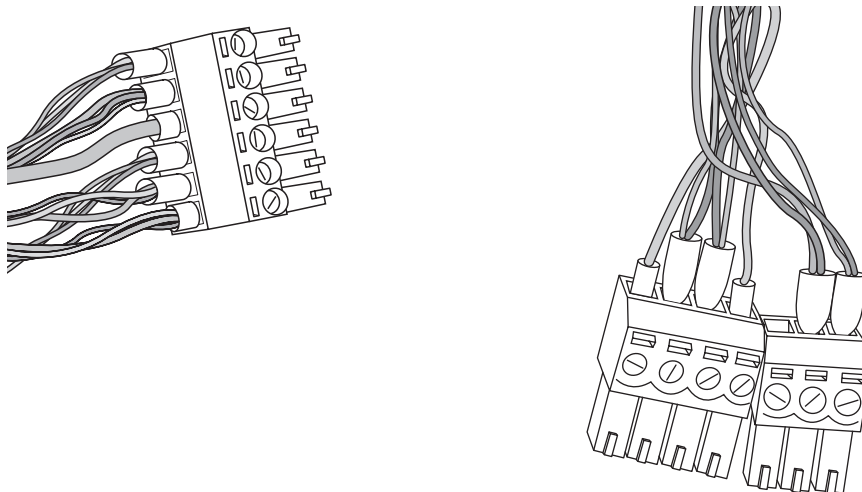
Parameter setting DCU1-NT

► Set Ci (contact sensor inside, contact type) or Co (contact sensor outside, contact type) to 04 (frequency).

8.3 Protecting the sensor cable against short-circuit

When connecting the sensor cables to the connectors SIS1, SIS2, SIO1, SIO2 use the following method:

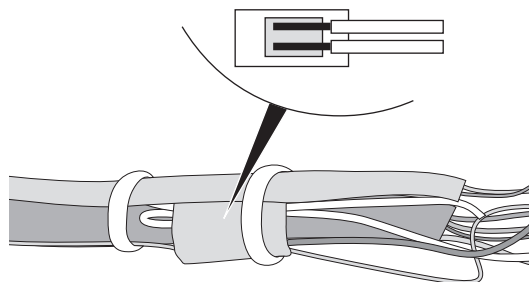
Combine several wires to be connected in one wire-end ferrule



Connect VB wires using an insulated parallel connector

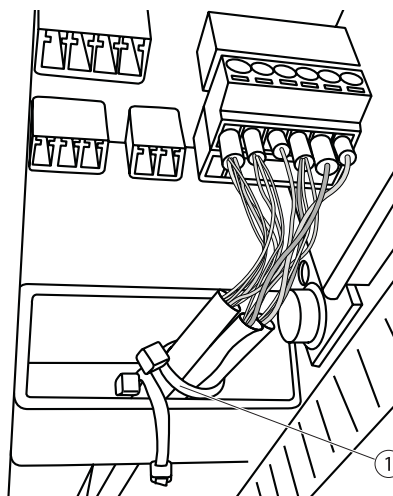
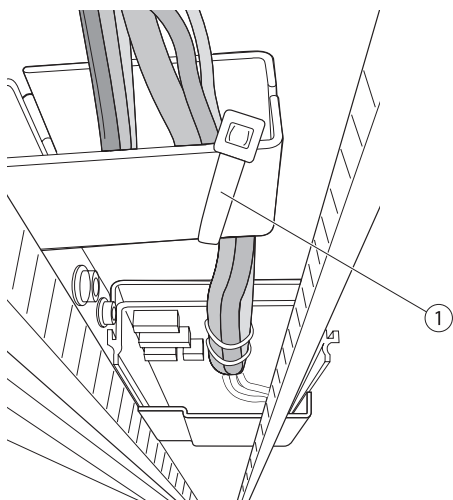
Parallel connectors: e.g. Bürklin, order no. 07F680

- ▶ Use shrink tubing to insulate wires until the start of the cable sheath. The shrink tubing must project 10 mm over the insulated parallel connector.
- ▶ Lay the insulated wires backwards over the cable sheaths.
- ▶ Insulate non-used wires and lay them backwards over the cable sheaths.
- ▶ Fix wires and cables using 2 cable ties.



Secure sensor cables against movement

- ▶ Fix the sensor cables to the cable holder using a cable guide (1).



9 Mechanical contact



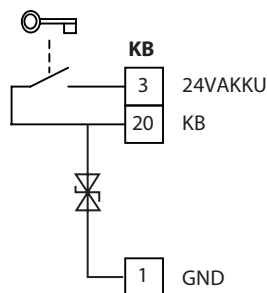
- The input KB is active in modes of operation $\overline{R}$, $\overline{L}$ and $\overline{R}$.
- During activation, the output of the mechanical contact is closed (24 V AKKU is applied to the KB input).
- When KB is activated, the door opens fully, even if the mode of operation $\overline{R}$ winter is set.



Do not use terminal strip "KB" for supplying external loads (e.g. number code lock). Otherwise the rechargeable battery will not be charged.

- Key switch SCT, single-pole, flush-mounted, AS 500 without Euro profile half cylinder, mat. no. 117996
- Accessories:
 - Euro profile half cylinder, mat. no. 090176
 - Additional contact, mat. no. 024467 (the additional contact is not a sabotage contact, it is intended to release the DPS or TPS)

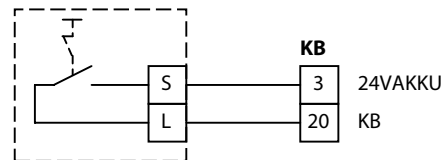
If the activation device at the KB input is installed away from the building (e.g. on a bollard), a protective diode BZW06-33B, mat. no. 165678, is required at the KB input of the control DCU1-NT, DCU1-2M-NT.



9.1 Emergency shut-off switch without illumination

- Mat. no. 120881

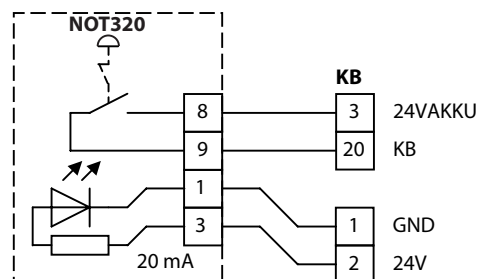
Mark "Open emergency push button" using the label enclosed.



9.2 Emergency shut-off switch with illumination

- Surface-mounted, AS 500, alpine white, mat. no. 137967
- Flush-mounted, mat. no. 136571

After activation, the switch must be unlocked by pulling out the mushroom button.



10 Contact sensor inside

The KI input is active in modes of operation *Ru* and *L5*.



► Heed the installation instructions for the respective sensors.

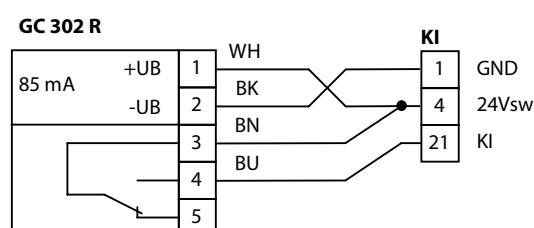
10.1 Standard doors



During activation, the output of the contact sensor inside is closed (24 V are applied to the KI input).

10.1.1 Radar movement detector GC 302 R

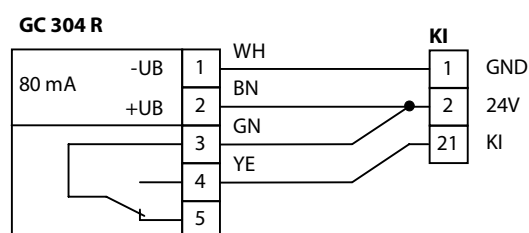
- GC 302 R black, mat. no. 124087
- GC 302 R according to RAL, mat. no. 124088
- The GC 302 R is a direction-sensitive radar movement detector.



- Accessories:
 - Remote control, mat. no. 099575
 - Ceiling installation kit, mat. no. 115384
 - Rain cover, mat. no. 115339
- If several GC 302 R units are mounted next to or after one another, set different device addresses using the two DIP switches. Otherwise the settings of the other detectors will also changed by the remote control.

10.1.2 Radar movement detector GC 304 R

- GC 304 R black, mat. no. 130651
- The GC 304 R is a direction-sensitive radar movement detector.
- Accessories:
 - Remote control, mat. no. 100061
 - Ceiling installation kit, mat. no. 130653
 - Rain cover, mat. no. 130654



10.1.3 Active infrared detector and radar movement detector GC 363 R

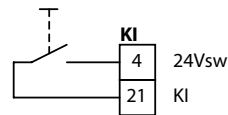
See chapter 5.1 Active infrared detector and radar movement detector GC 363 R.

10.1.4 Active infrared detector and radar movement detector GC 365 R

See Chapter 5.4 Active infrared detector and radar movement detector GC 365 R

10.1.5 Push button (potential-free contact)

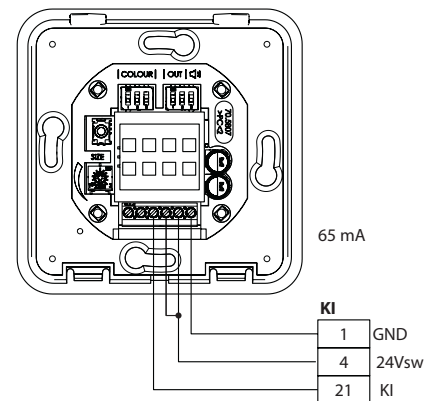
- Plastic elbow switch, white, mat. no. 114078
- Plastic elbow switch, stainless steel, mat. no. 114077
- Stainless steel elbow switch, mat. no. 119898
- LS 990 stainless steel elbow switch, surface-mounted, mat. no. 128582
- LS 990 stainless steel elbow switch, flush-mounted, mat. no. 128583



10.1.6 Non-contact activation sensor GC 307+

The GC 307+ is a non-contact activation sensor with a range of 10 - 60 cm for manual activation.

- GC 307+ standard flush mounting, mat. no. 193226
- GC 307+ standard surface mounting, mat. no. 195727
- ▶ Set the type of contact for KI and KA to "normally open contact".

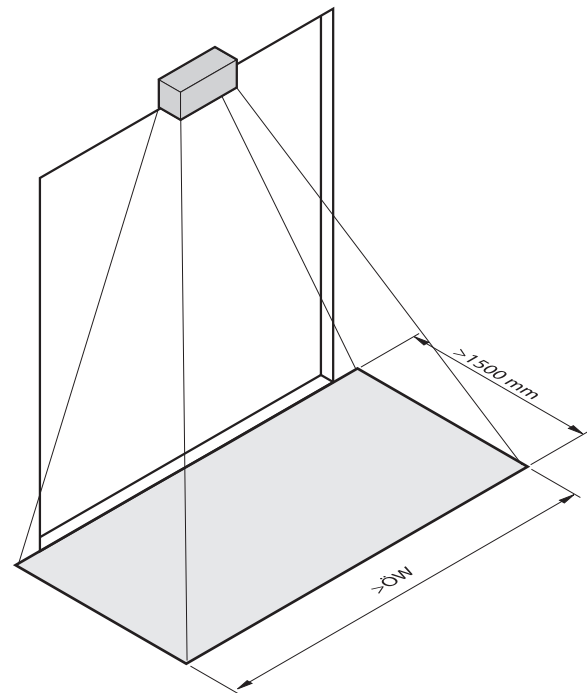


- Accessories:
 - Remote control, mat. no. 100061

10.2 Doors on rescue routes



- ▶ Install self-monitored movement detector in the direction of escape.
- During activation, the output of the contact sensor inside is open; GND is applied to the KI input.
- ▶ Set the detection area and sensitivity of the radar movement detector as per AutSchR:
- Detection area = $\ddot{O}W \times 1.5 \text{ m}$, speed greater than 10 cm/s.



10.2.1 Active infrared detector and radar movement detector GC 363 SF

See chapter 5.2 Active infrared detector and self-monitored radar movement detector GC 363 SF.

10.2.2 Active infrared detector and radar movement detector GC 365 SF

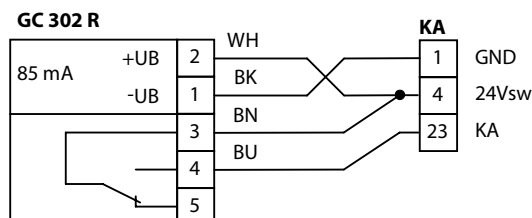
See chapter 5.5 Active infrared detector and radar movement detector GC 365 SF.

11 Contact sensor outside

- The KA input is only active in mode of operation $\overline{R_U}$.
- During activation, the output of the contact sensor outside is closed (24 V is applied to the KA input).

11.1 GC 302 R radar movement detector

- See chapter 10.1.1 Radar movement detector GC 302 R.



11.2 GC 304 R radar movement detector

See chapter 10.1.2 Radar movement detector GC 304 R.

11.3 Active infrared detector and radar movement detector GC 363 R

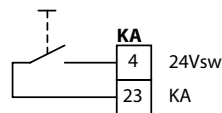
See chapter 5.1 Active infrared detector and radar movement detector GC 363 R.

11.4 Active infrared detector and radar movement detector GC 365 R

See chapter 5.4 Active infrared detector and radar movement detector GC 365 R.

11.5 Push buttons (potential-free contact)

- See chapter 10.1.5 Push button (potential-free contact).



11.6 Non-contact activation sensor GC 307+

See chapter 10.1.6 Non-contact activation sensor GC 307+.

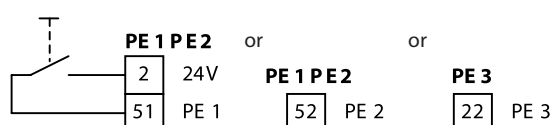
12 Configurable inputs

The control features three configurable inputs, PE1 (terminal 51), PE2 (terminal 52) and PE3 (terminal 22), that can be allocated different control functions. The parameter setting of the inputs can be programmed using the display programme switch DPS or the service terminal ST 220 or GEZEconnects. The functions are described in the section Service menu DPS (2nd menu) and in the section service terminal ST 220 (configurable inputs).

12.1 Switch function

PE function	DPS	Description
Switch function	I 0	The first switch contact opens the door and the next closes the door.
Switch function with closing after OHZ	I 1	The door closes after the hold-open time (hold-open time mechanical contact) has elapsed if it has not been closed by the push button beforehand.

- With DPS: Set **E 1**, **E 2** or **E 3** to **I 0** (switch function) or **I 1** (switch function with closing after hold-open time).
- With ST 220: Set PE1, PE2 or PE3 function to "switch function" or "switch function OHZ".

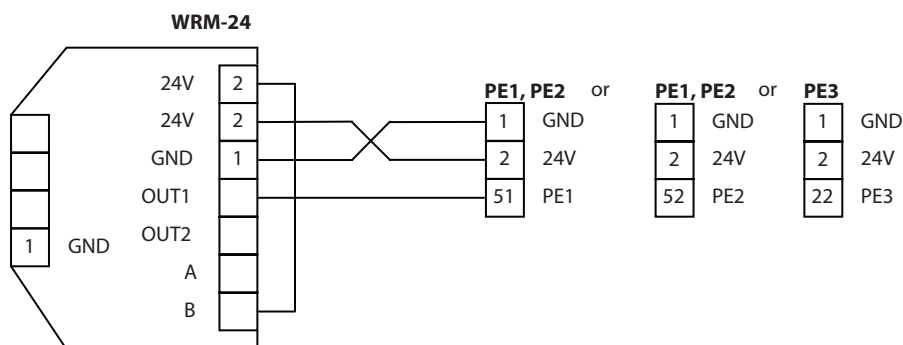


- During activation, the push button is closed (24 V is applied to inputs PE1, PE2 and PE3).

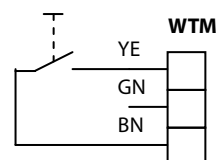
12.2 Wireless activation

- Follow the assembly and operating instructions.
- Parameter setting contact type with:
 - DPS: Set E1, E2 or E3 to the required function (8, 9, 10, 11, 14).
 - ST 220: Set "input signals", "configurable inputs", "PE1 function", "PE2 function" or "PE3 function" to the required function.

Push button with transmitting module

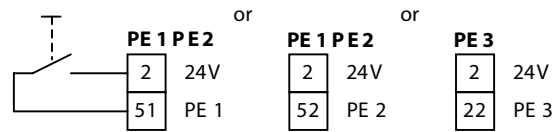


- The receiving module WRM-24 can be activated with the transmitting module WTM and the remote control WTH.
- WTM transmitting module, mat. no. 131212, for clipping into a plastic elbow switch.
- Follow the installation instructions for the wireless programme AUT.



12.3 Pharmacy opening

- ▶ Set function parameter for input used:
 - With DPS: Set *E1*, *E2* or *E3* to *05*.
 - With ST 220: Set "PE1", "PE2" or "PE3 function" to "pharmacy".



- During activation, 24 V is applied to the input.
- The pharmacy opening function is only active in the *PH* mode of operation and opens the door by approx. 10–15 cm.
- ▶ Use a push button as the activation device.

12.4 Emergency lock



DIN 18650
EN 16005



WARNING!

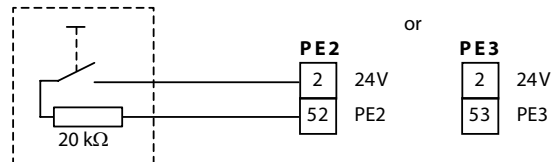
Danger of injury due to crushing and shearing!

The safety sensors and the obstacle are not evaluated. The door closes with the set force.

- ▶ If the door closes suddenly, move out of the danger zone.

The configurable inputs PE2 and PE3 can be used to connect an emergency lock switch.

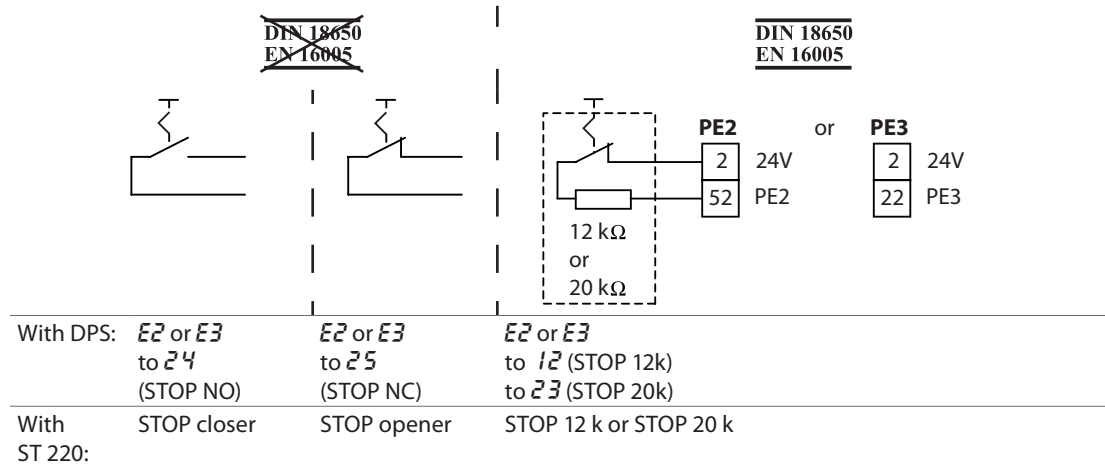
- When the emergency lock switch is activated, the contact is closed and approx. 5 V is applied to the input PE2 or PE3.
 - Contact sensors KA, KI and KB, safety sensors SIS as well as obstacle detection are hidden.
 - "Hold open" mode of operation is cancelled.
 - The door closes and locks.
 - The door remains closed as long as the emergency lock signal is applied to the input.
- The "emergency lock" function requires a terminating resistance of 20 kΩ.
- ▶ Set the parameters:
 - With DPS: Set *E2* or *E3* to *07* (emergency lock 20k).
 - With ST 220: Set "PE2" or "PE3" to "emergency lock 20k".



12.5 Stop



As soon as the STOP switch is activated, the drive brings the door leaf to a standstill. The door leaf can be freely moved manually as long as the STOP switch is activated.



For personal protection as per DIN 18650 and EN 16005:

- Connect terminating resistance to monitor the input in accordance with the configuration.

Voltage of terminal PE2 or PE3 to GND	
STOP 12k	
Not activated	7.4 V
Activated or cable break	0 V
Cable short-circuit	24 V
STOP 20k	
Not activated	5.1 V
Activated or cable break	0 V
Cable short-circuit	24 V

13 WC control



Function

If the toilet is vacant, the door is in the "automatic" mode of operation. The displays are off or in the case of GC 307+ the display lights up green.

Pressing the outside push button opens the door. After the toilet has been entered and the inside push button is pressed, the door closes. The outside push button is blocked, the displays light up red and the drive holds the door in the closing position with the aid of the motor gear unit.

After the inside push button has been pressed again, the door opens, the displays go off or in the case of GC 307+ the display lights up green and the outside push button is cleared again.

As well as locking via the inside push button, locking from the outside is possible using the key "exit only" on the DPS or TPS.

When the toilet is monitored for permanent locking, output A2 is activated after 30 minutes. The time cannot be set. In an emergency, the door can be opened from the outside using the emergency shut-off switch.

Setting the parameters, with:

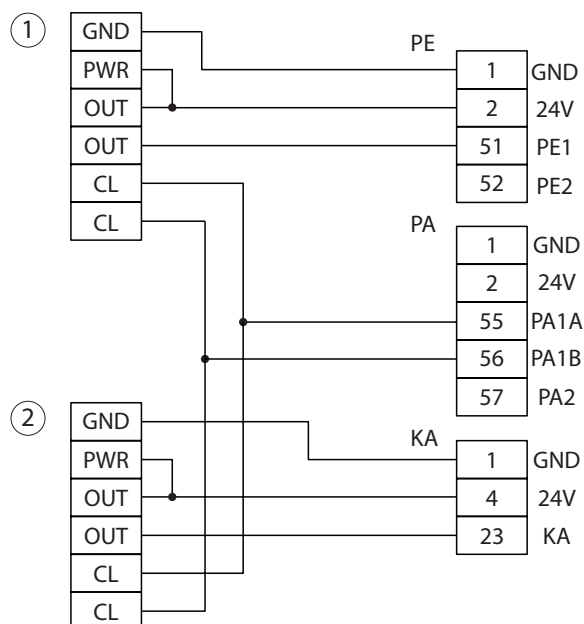
- DPS:
 - Set E1, E2 or E3 to 21 (WC control), depending on the input used.
 - Set A1 to 14 (LS).
 - Set A2 to 24 (fault WC timeout) if monitoring of permanent locking is required (signal horn to the lodge)
 - Set AC to 01 (open) or 03 (rechargeable battery operation max. 30 minutes / 30 cycles, then open).

- ST 220:
 - Set "input signals", "PE1 function", "PE2 function" or "PE3 function" to "WC control".
 - Set "output signals", "PA1 function" to "exit only".
 - Set "Door parameters", "Power failure not NA" to "open" or "30 min open".

13.1 Non-contact sensor GC 307+ WC

- GC 307+ WC flush mounting, mat. no. 195750
- GC 307+ WC surface mounting, mat. no. 195751
- Accessories:
 - Remote control mat. no. 100061

Non-contact sensor GC 307+ with LED display



- 1 Push button inside
- 2 Push button outside

Recommended setting at the GC 307+ WC via remote control

- All DIP switches "Colour of LED" to OFF.



- Colour "no detection" → green **A** **2**
- Colour "detection" → blue **B** **3**
- Colour "occupied/external control signal" → red **C** **1**

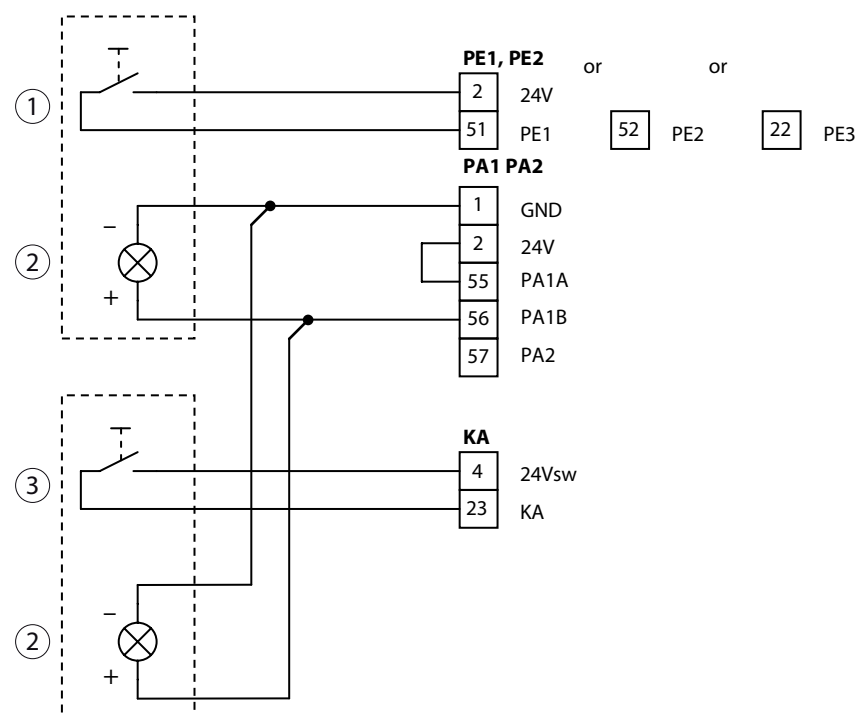
For further settings (e.g. acoustic feedback) see installation instructions GC 307+.

13.2 Elbow switches and indicator lamps

Accessories:

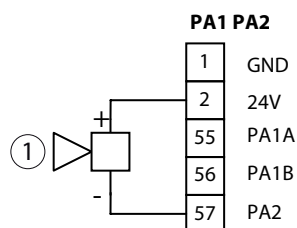
- Plastic elbow switch, white, mat. no. 114078
- Plastic elbow switch, stainless steel, mat. no. 114077
- Stainless steel elbow switch, mat. no. 119898
- LS 990 stainless steel elbow switch, surface-mounted, mat. no. 128582
- LS 990 stainless steel elbow switch, flush-mounted, mat. no. 128583
- SLE220 indicator lamp, flush-mounted, AS500, AW, mat. no. 115934
- Optional: SLH220, SIGNAL HORN, flush-mounted, AS 500, AW, COMPLETE, mat. no. 115939

Push button with illuminated display "Occupied"



- 1 Push button inside
- 2 Display "Occupied", inside and outside
- 3 Push button outside

13.3 Signal horn



- 1 Signal horn SLH220 to the lodge (optional)

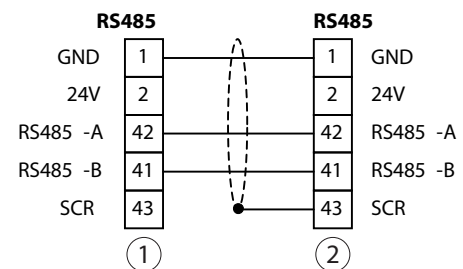
13.4 Emergency shut-off switch

See "emergency shut-off switch", chapter 9 Mechanical contact.

14 Interlocking door system, vestibule



- Two sliding doors use the same programme switch.
- The programme switch only indicates the fault messages of the first control.
- Interlocking door system: One door only opens if the other one is closed.
- Vestibule: Both doors run in the same mode of operation
- ▶ Do not connect terminal 2. The programme switch is lieber connected to the first control.



- ▶ Set parameters with DPS:
 - First control: $SL = 00$
 - Second control: $SL = 01$ for interlocking door system
 $SL = 02$ for vestibule
- ▶ Set parameters with ST 220:
 - First control: "Interlocking door system vestibule = Master"
 - Second control: "Interlocking door system vestibule = Slave interlocking door system" for interlocking door system
"Interlocking door system vestibule = Slave vestibule" for vestibule

- 1 Control door 1
- 2 Control door 2

15 Mode of operation



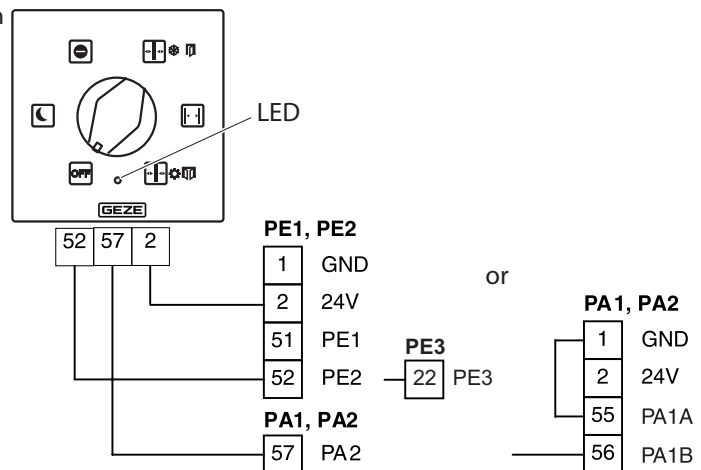
- For sliding doors in escape and rescue routes, the programme switch must be protected against unauthorised access, e.g. by using a lockable version.
- The display programme switch DPS, the service terminal ST 220 or GEZEconnects is required for setting control parameters and commissioning the door drive.

Mode of operation	Setting	Explanation
Automatic		Door opens and closes again. Inside and outside activation devices active.
▫ Full opening width		Door opens the complete opening width.
▫ Reduced opening width		Door opens only part of the possible opening width (can be set).
Exit only (one-way operation)		Activation device internal active. Outer activation device only active as long as door is not closed. Door only opens for passage from the inside to the outside. The full/reduced opening width can be set as described under the "Automatic" mode of operation.
Hold open		Door remains open.
Night mode/Locked		Door is closed and locked (if locking mechanism available). Movement detector not active. Only "authorised" activation device is active.
Off (service/cleaning position)		The drive is switched off for maintenance purposes. The door leaves can be moved freely by hand. Activation and safety sensors are without function. Drive motor and locking mechanism are switched off. FR door moves to the open position.

15.1 Mechanical programme switch

The LED on the mechanical programme switch lights up after the service interval has expired or in the event of a fault.

- MPS, AS 500, mat. no. 113226
- MPS-ST, with key, AS 500, mat. no. 113227
- Accessories:
 - Surface mounting cap single, AS 500, mat. no. 120503
- Modes of operation:
 - OFF, *nR*, *LS*, *RU* Winter, *do*, *RU* Summer
- ▶ Follow the installation instructions.



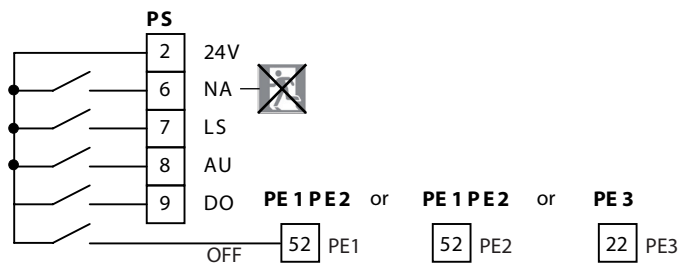
- ▶ Set parameters for input/terminal PE2:
 - With DPS: *E2* or *E3* to *01* for MPS
 - With ST 220: "PE2 function" or "PE3 function" to "MPS"
- ▶ Set parameters for output/terminal PA1 and PA2:
 - With DPS: Set *R1* or *R2* to *04* for fault display MPS.
 - With ST 220: Set "PA1" or "PA2 function" to "fault MPS".
- If the mechanical programme switch is used, it is not possible to change the mode of operation using the keypad programme switch, display programme switch or the inputs *nR*, *LS*, *RU* and *do*.

15.2 Switching the mode of operation using push buttons or switches

In addition, it is possible to change between the modes of operation *nR*, *RU*, *LS*, *do* and "OFF" using potential-free push buttons or switches.

- ▶ For the mode of operation "OFF" the function parameter must be set for the input used:

If the drive is switched to the OFF mode of operation, the door opens before the drive switches off.



Parameter setting for OFF

- With DPS: Set *E1*, *E2* or *E3* to *02*.
- With ST 220: Set "PE1", "PE2" or "PE3 function" to "OFF".
- The control switches to the desired mode of operation if the level switches from GND to 24 V at the corresponding input.
- Operation using the keypad programme switch or display programme switch is only possible if there is no signal pending at the inputs *nR*, *RU*, *LS* and *do*.
- Locking the door (changing to mode of operation *nR*) using a potential-free push button or switch is not possible for doors on rescue routes.



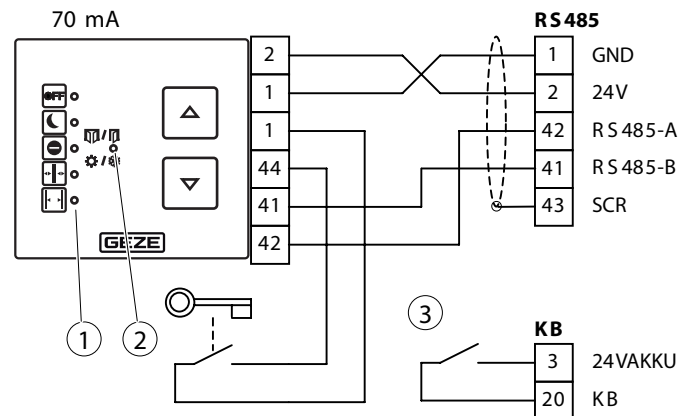
15.3 Keypad programme switch

- TPS, AS 500, flush-mounted, mat. no. 113231
- TPS SCT, AS 500, flush-mounted, with key switch, without Euro profile half cylinder, mat. no. 113232

LEDs (1) for mode of operation display indicate a fault code when a fault has occurred (see fault messages keypad programme switch).

LED (2) lights up with reduced opening width.

- Modes of operation:
 - OFF, *⌂*, *LS*, *RU*, *da*, Summer/Winter
- Operation of the programme switch can be blocked for unauthorised persons by using a key switch or assigning a password (see chapter 15.6.2).



- 1 LEDs for mode of operation display
- 2 LED for reduced opening width
- 3 Additional contact

! No TPS can be connected when PE2 function is "MPS" (only display possible).

- ▶ Follow the installation instructions.
- Accessories:
 - Euro profile half cylinder, mat. no. 090176
 - Additional contact, mat. no. 024467
 - Surface mounting cap single, AS 500, mat. no. 120503
 - Surface mounting cap double, AS 500, mat. no. 128609

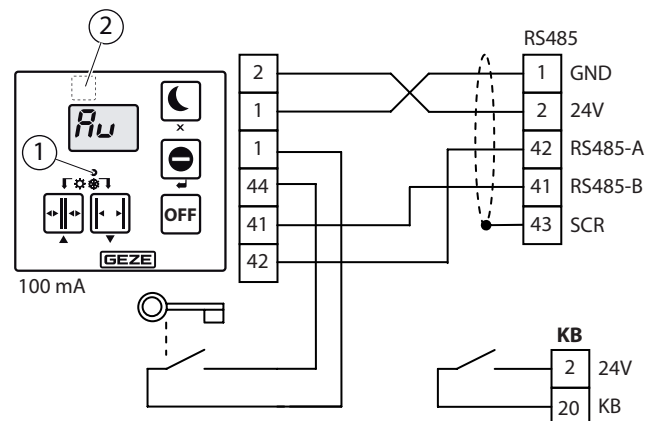
15.4 Display programme switch (DPS) with OFF switch

- AS 500, DPS with OFF, flush-mounted, alpine white, mat. no. 151524
- AS 500, DPS with OFF and SCT, with Euro profile half cylinder, flush-mounted, alpine white, mat. no. 155810
- Modes of operation: OFF, *⌂*, *LS*, *RU*, *da*, Summer/Winter opening width

! ▶ Follow the installation instructions

▫ A DPS cannot be connected if the PE2-function is set to "MPS" (only display possible).

- Changing the operating with the DPS is only possible if 24 V are not applied to *⌂*, *LS*, *RU*, *da* or PE1 or PE2 if PE1, PE2 or PE3 is configured to OFF.
- Operation of the programme switch can be blocked for unauthorised persons by using a key switch or assigning a password (see chapter 15.6.2). With DCU1-2M-NT, the key switch must always be pressed for operation of the DPS.
- Switching between summer/winter opening width:
 - ▶ Press the ▲▼ keys simultaneously.



- 1 Display summer/winter (LED lights up for winter opening width)
- 2 Hidden service button

! ▫ A maximum of one keypad programme switch can be connected to the control together with a maximum of one display programme switch.

The control can be configured using DPS.
See Service menu, chapter 23.2.

Accessories:

- Key switch SCT, single-pole, flush-mounted, AS 500 without Euro profile half cylinder, mat. no. 117996
- Euro profile half cylinder, mat. no. 090176
- Additional contact, mat. no. 024467
- Surface mounting cap single, AS 500, mat. no. 120503
- Surface mounting cap double, AS 500, mat. no. 128609

15.5 Reset function (DPS with OFF switch, TPS)

In the OFF mode of operation, the keys ▲ and ▼ can be pressed at the same time to trigger a software reset. The drive then behaves in the same way as after mains voltage switch-on and carries out initialisation. The parameter settings are not changed.

15.6 Blocking or releasing operation of TPS and DPS

15.6.1 With additional key switch (1st possibility)

With automatic standard sliding doors

- ▶ Press the key switch briefly to block function.
 - With the DPS, the function "operation blocked" is signalled by the display "- -" when any key is pressed.
 - With the TPS, the function "operation blocked" is signalled by the LED for the respectively set mode of operation flashing once when any key is pressed.
- ▶ Turn key switch again briefly for release. Operation is then permanently released.

For automatic sliding doors on escape and rescue routes

- ▶ The key switch has to be pressed permanently for operation.
- ▶ Operation is blocked as soon as the key switch is no longer pressed.
 - With the DPS, the function "operation blocked" is signalled by the display "- -" when any key is pressed.
 - With the TPS, the function "operation blocked" is signalled by the LED for the respectively set mode of operation flashing once when any key is pressed.

15.6.2 Release with password (2nd possibility)

This requires previous setting of the 2-digit password in the drive Service menu (factory setting: no password).

- For release on the TPS:
- ▶ Enter the first digit of the password by the number of times the key is pressed, with
 - TPS: Key ▲
 - DPS: Key 

Enter the second digit of the password by the number of times the key is pressed, with

- TPS: Key ▼
- DPS: Key 

Confirm password, with

- TPS: Press the ▲ and ▼ keys at the same time
- DPS: Key 
- After the password has been entered, operation of the programme switch has been released.
- Operation is locked automatically 2 minutes after the last key has been pressed. With the TPS, the function "operation blocked" is signalled by the LED for the respectively set mode of operation flashing once when any key is pressed. With the DPS, the function "operation blocked" is signalled by the display "- -" when any key is pressed.

15.6.3 Permanent release of programme switch operation



- ▶ For permanent release, either fit a jumper between terminals 1-44 of the TPS or DPS.
- or
- ▶ Set the value "00" (factory setting) as the password in the Service menu.

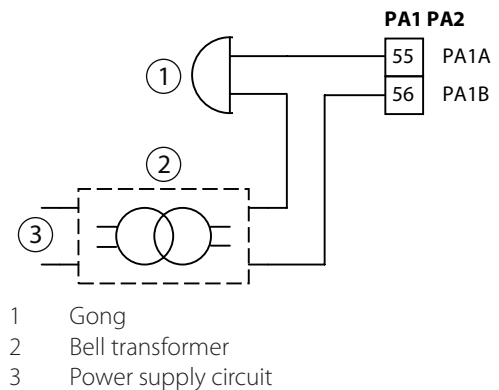
16 Configurable outputs

The control indicates various states via the two configurable outputs PA1 and PA2 (see Service menu). Parameters must be set for the outputs accordingly.

16.1 PA1 (gong)

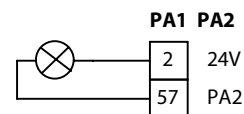
PA1 is a potential-free relay contact, switching voltage/current max. 24 V AC/DC / 0.5 A.

- ▶ Set parameters for the gong function:
 - With DPS: Set *R1* or *R2* to *01*.
 - With ST 220: Set "PA1" or "PA2 function" to "gong".
- The contact closes as soon as SIS1 or SIS2 is actuated.



16.2 PA2 (fault, engine fan)

PA2 is a transistor output, switching voltage/current max. 24 V DC / 0.5 A.



- ▶ Set parameters for fault indication:
 - With DPS: Set *R1* or *R2* to *02*.
 - With ST 220: Set "PA1" or "PA2 function" to "fault closer".

The output switches to GND as soon as the control detects a system fault. At the same time, the corresponding fault number is displayed on the display programme switch or keypad programme switch.

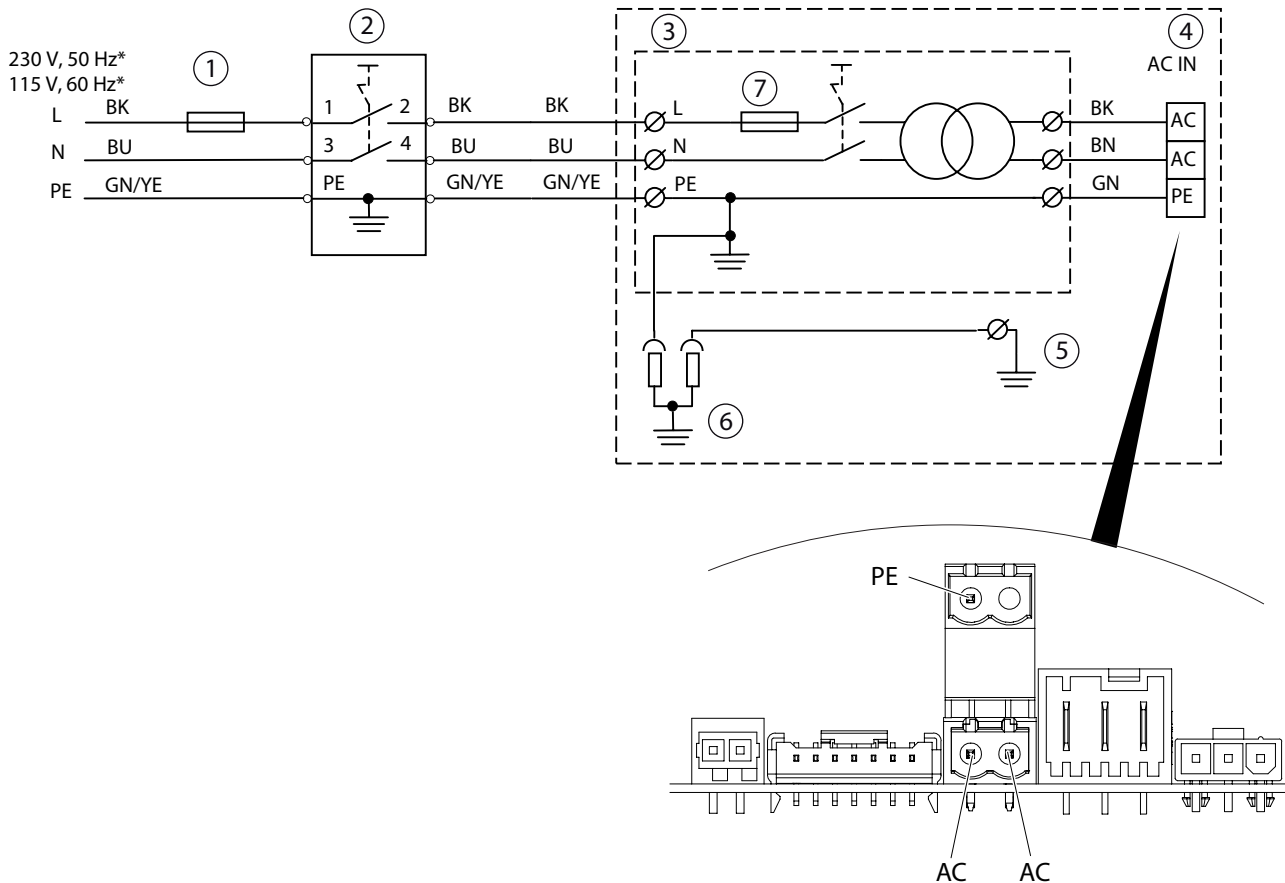
- ▶ A relay for galvanic isolation must be installed for forwarding the problem signal (e.g. to a building management system).
- ▶ Set parameters for the use of a fan for cooling the motor gear unit:
 - With DPS: Set *R1* or *R2* to *07*.
 - With ST 220: Set "PA1" or "PA2 function" to "motor fan".

- Motor fan for Powerdrive, mat. no. 123394, current consumption 40 mA

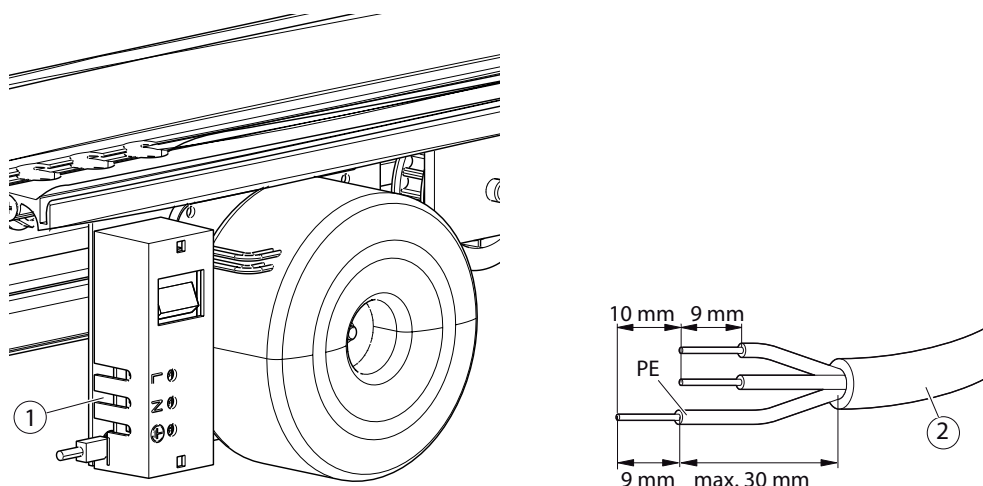
17 Mains connection

Transformer for Slimdrive,	230 V / 50 Hz, 140 VA,	mat. no. 106194
Transformer for ECdrive,	230 V/50 Hz, 140 VA,	mat. no. 106530
Transformer for Powerdrive,	230 V/50 Hz, 200 VA,	mat. no. 117975
Transformer for Slimdrive,	115 V / 60 Hz, 140 VA,	mat. no. 126682
Transformer for ECdrive,	115 V / 60 Hz, 140 VA,	mat. no. 108085
Transformer for Powerdrive,	115 V / 60 Hz, 200 VA,	mat. no. 126480

Connection to the mains voltage must be carried out by a qualified electrician or a qualified electrician for specified tasks. Carry out the mains connection and equipment earth conductor test in accordance with VDE 0100.



- 1 Mains fuse on site, min. 6 A slow-blow
 - 2 Main switch (optional)
 - 3 Transformer
 - 4 Control
 - 5 Cover earthing
 - 6 Earthing connection
 - 7 G-fuse element 5x20 mm
 - T2AH for transformer mat. no. 106194, 106530
 - T2,5AH for transformer mat. no. 117975
 - T3,15AH for transformer mat. no. 126682, 108085
 - T4AH for transformer mat. no. 126480
- * depending on the transformer version



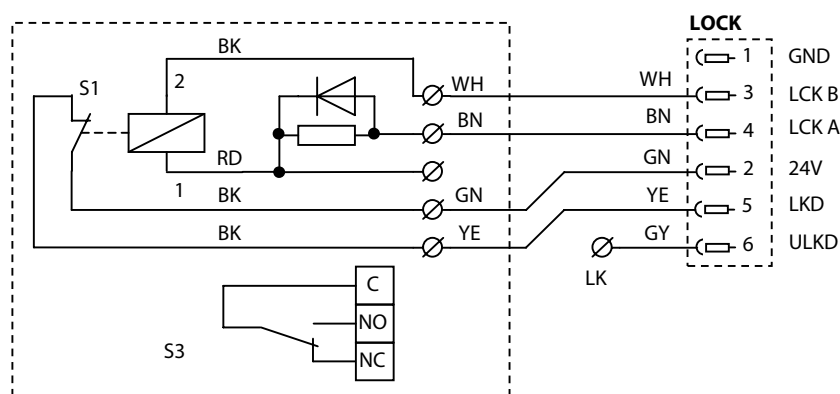
1 Mains connection terminal 230 V/115 V

- Strip the mains cable (2).
 - Insulation stripping length 40 mm
 - Stripping length 9 mm
 - PE line lead 10 mm

18 Locking mechanism

18.1 Toothed belt locking

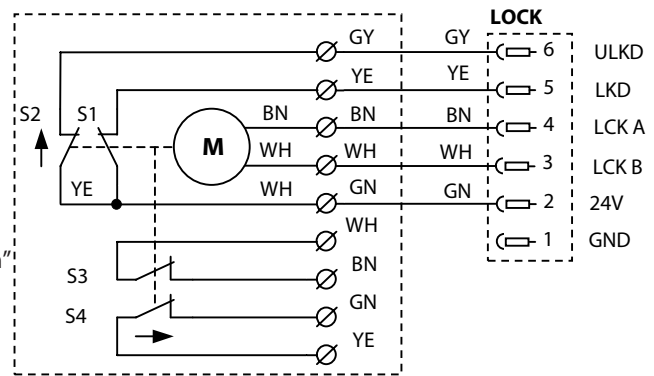
- Toothed belt locking Slimdrive SL, SLT, SL NT, mat. no. 114004
- Toothed belt locking Slimdrive SC, mat. no. 105275
- Toothed belt locking ECdrive, mat. no. 117766
- Toothed belt locking Powerdrive, mat. no. 114000
- Toothed belt locking ECdrive T2, mat. no. 181144



- Illustration in unlocked state.
- Switch S3, mat. no. 019080, can be installed optionally, switching voltage/current max. 24 V AC/DC / 0.5 A.
- In the locked state, switches S1 and S3 are actuated and the contact of switch S1 is opened.

18.2 Rod locking, electromechanical break axle

- Rod locking Slimdrive SL, SLT, mat. no. 105680
- Electromechanical break axle Slimdrive SF, mat. no. 107574
- ▶ Set parameters for the function rod locking, electromechanical break axle:
 - With DPS: Set r_k to 02.
 - With ST 220: Set "electric locking mechanism" to "motor driven".



- Illustration in unlocked state.
- Switches S3 and S4, mat. no. 105684, can be installed optionally with electromechanical break axle, switching voltage/current max. 24 V AC/DC / 0.5 A.
- In the locked state, switches S1 and S3 are actuated, the contacts of switches S1 and S3 and the contacts of switches S2 and S4 are opened.

Adjusting the operating cams:

- Position locked:
S1 and S3 actuated, contacts are opened (NC). S2 and S4 not actuated, contacts are opened (NO).
- Position unlocked:
S1 and S3 not actuated, contacts are closed (NC), S2 and S4 actuated, contacts are closed (NO).



The following rod lockings are used for drives with RC2:

- | | |
|--|-----------------|
| ▫ 2-leaf SL RC2, without potential-free contact | mat. no. 134044 |
| ▫ 2-leaf SL RC2, with potential-free contact | mat. no. 136105 |
| ▫ 2-leaf SLC RC2, with potential-free contact | mat. no. 140244 |
| ▫ 1-leaf, left hand slide to open SL RC2, with potential-free contact | mat. no. 139769 |
| ▫ 1-leaf, right hand slide to open SL RC2, with potential-free contact | mat. no. 139770 |

18.3 Lock A hook bolt lock

- Basic kit EC 2-leaf, 1-leaf, right, mat. no. 153652
 - Basic kit EC 1-leaf, left, mat. no. 153653
 - Basic kit SL NT 2-leaf, 1-leaf right, mat. no. 153654
 - Basic kit SL NT 1-leaf left, mat. no. 153655
- Set the parameters:
- With DPS: $E2$ to 20
 r to 05
 - With ST 220: "PE2" to "manual unlocking"
 "electric locking mechanism" to "Lock A"

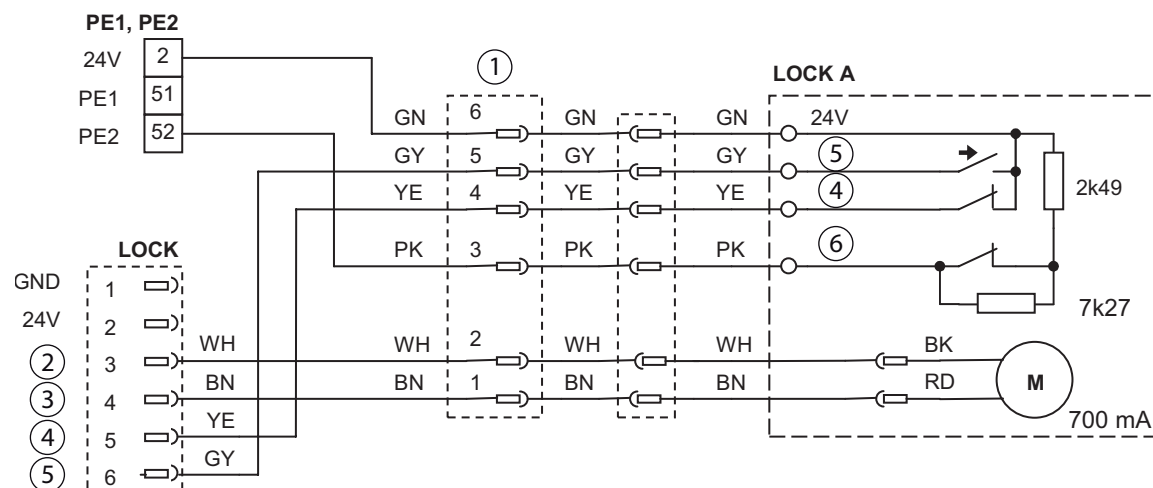
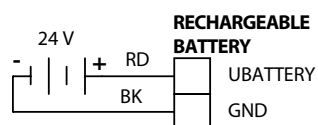


Illustration in "unlocked" state

- 1 Rod contacts (Lock A Integration)
- 2 Bolt B
- 3 Bolt A
- 4 Locked
- 5 Unlocked
- 6 Manually unlocked

19 Rechargeable battery

- Rechargeable battery, mat. no. 106863
- Voltage in charged state: ≥ 26 V (with rechargeable battery unplugged).



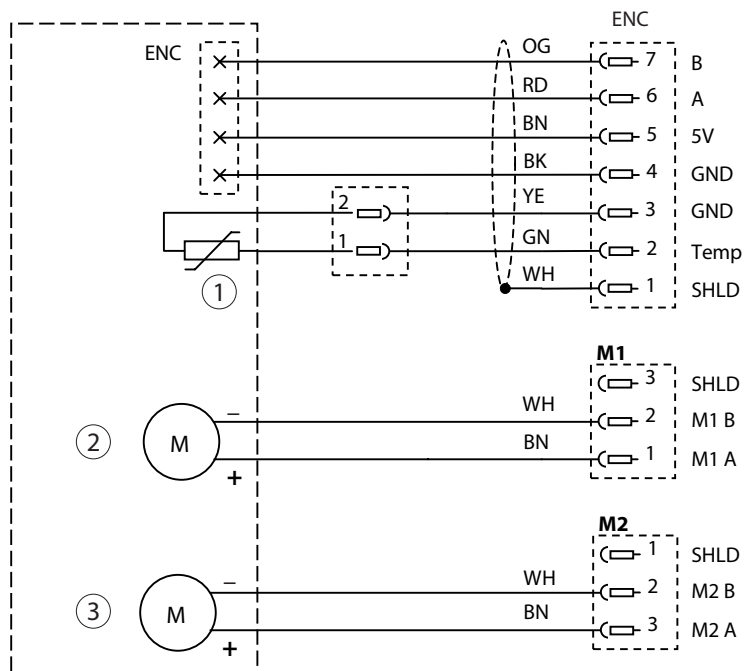
20 Motor gear unit



Motor gear unit 1: Motor gear unit DCU1, mat. no. 105009.



Motor gear unit 2: Only with tandem motor DCU1-2M, mat. no. 102517.



21 Control

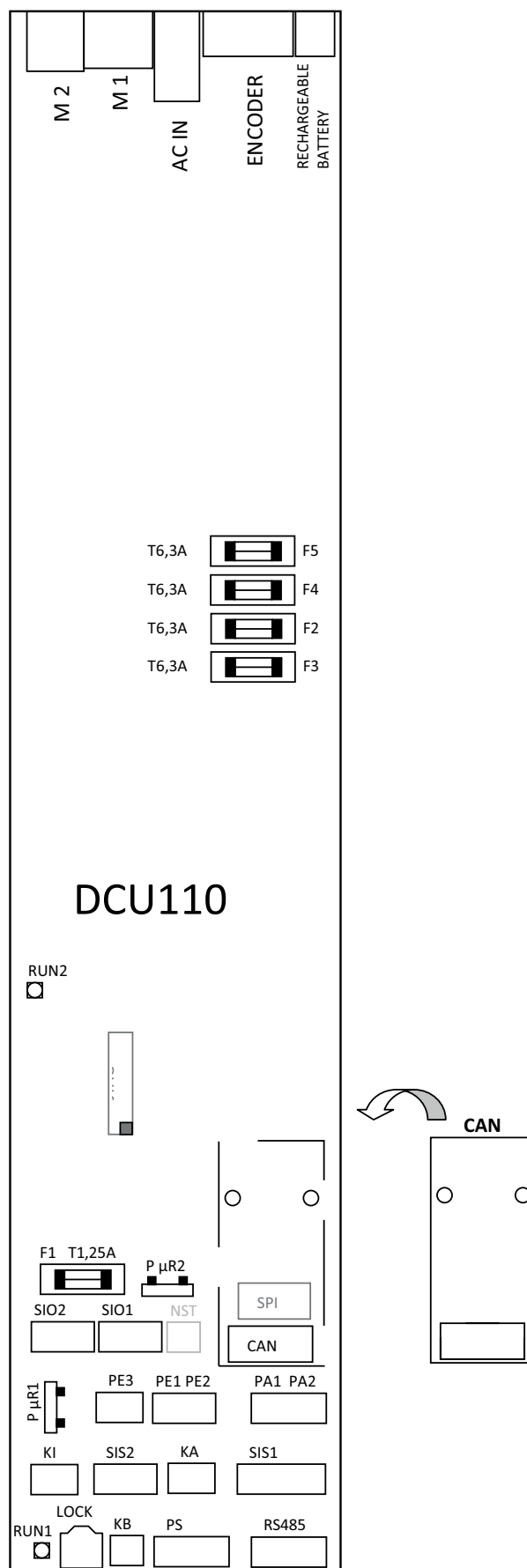


Control DCU1-NT, mat. no. 158615.
Terminal bag DCU1-NT, mat. no. 158631.



Control DCU1-2M-NT, mat. no. 158616.
Terminal bag DCU1-NT, mat. no. 158631.

- DCU1-NT and DCU1-2M-NT:
 - F1 24 V EXT (T1.25 A, 5x20 mm)
 - F2 AC IN (6.3 AT, 5x20 mm)
 - F3 RECHARGEABLE BATTERY (6.3 AT, 5x20 mm)
 - RUN1 RUN-LED, µController 1
 - P µR1 Programming connector, µController 1
 - M1 Motor gear unit 1
- DCU1-2M-NT, in addition:
 - F4 AC IN (T6.3 A; 5x20 mm)
 - F5 RECHARGEABLE BATTERY (T6.3 A; 5x20 mm)
 - RUN2 RUN-LED, µController 2
 - P µR2 Programming connector, µController 2
 - M2 Motor gear unit 2
- RUN-LED
 - LED on: Everything OK
 - LED flashes slowly (0.25 Hz): Drive not taught
 - LED flashes quickly (2 Hz): Fault
- CAN interface CAN/CAN-ISOL mat. no. 119952
- CAN interface CAN/CAN mat. no. 189521 (see respective supplementary sheets)



22 Commissioning and service

Commissioning and service can be carried out using the display programme switch DPS or the service terminal ST 220 or GEZEconnects.



Only one service tool may be used at once!

22.1 Production test

The production test is used for functional testing of the power supply, control, motor gear unit, rechargeable battery and locking mechanism (if available). The production test is carried out on the drive before it is installed on the wall and without sliding panels.



DANGER

Danger of electric shock!

► Interrupt power supply.

- Connect power supply to 230 V AC and use an r.c.c.b.
- Connect the rechargeable battery.
- Lock the locking mechanism (if available) by hand. The bolt comb must fully engage in the toothed belt.
- Connect the display programme switch.



► Connect terminals 1 and 44 of the display programme switch.

- Reset the control to factory settings using **LP**, display programme switch indicates **LE**.
- Press the service key and **RL** simultaneously (see Service menu, operation DPS), the production test starts:
 - **P1** Locking mechanism unlocked.
 - **P3** Motor gear unit turns by approx. 20 cm in one direction and then approx. 20 cm in the other direction.
 - **P2** Locking mechanism locked.
 - **P6** Check whether or not a rechargeable battery is connected.
 - **R0** Rechargeable battery was not detected.
 - **R1** Rechargeable battery was detected.
- If a rechargeable battery is connected, it must be detected. It is only checked whether the rechargeable battery is present and not whether the charge state of the battery is sufficient.
- If a fault occurs during the production test, the test is aborted and the fault displayed.
- Press the **↵** key.
- With ST 220, start the production test via the Service menu using the item "Start production test → yes".
- Unplug the rechargeable battery after the production test and leave it unplugged until commissioning.

22.2 Commissioning

22.2.1 Assembly and installation

- Installation is complete (see installation instructions of the corresponding sliding door drive).
- Sensors are correctly configured and aligned.
- Clear the sensor detection area.
- Electrical installation is complete. There are no cables in the travel path of the leaves and drivers. All cables have been secured with cable ties.
- Push leaves by hand from the closed position into the completely open position and back again. It must be possible to move them freely (movement force less than 100 N).
- Align locking mechanism. For fully closed leaves, the locking mechanism must be easily lockable and unlockable by hand.

22.2.2 Commissioning with DPS

**CAUTION****Danger of injury by opening door leaves during commissioning.**

- ▶ Switch off all safety devices.
- ▶ Step out of the travel path.

- ▶ If not yet installed, connect the display programme switch.
A keypad programme switch or mechanical programme switch that is already connected will not interfere with commissioning with the display programme switch.



- ▶ To commission a sliding door on rescue routes, terminals 1 and 44 of the display programme switch must be connected or the connected key switch must be activated.
- ▶ If a sliding door on a rescue route is to be operated with reduced opening width, connect terminals 2 and 6 on the control DCU1-2M-NT. For sliding doors on rescue routes, the reduced opening width must correspond to at least the required escape route width.

- ▶ Plug the rechargeable battery into the control.
- ▶ Switch on 230 V at the transformer.
- After power supply has been restored, a brand-new control indicates the function **LE** on the display programme switch, whereas a control that has already been in operation will indicate the mode of operation last used before the voltage supply was switched off.
- For already taught controls, the mode of operation must be **RU, LS do** (teaching cannot be done in **OFF** and **NR**).
- ▶ Set parameters for control, in particular:
 - **RE** Drive type
 - **EF** Number of door leaves
 - **rb** Dead bolt type
 - **Ei** Contact sensor inside
 - **S1, F1, S2, F2, S3, F3, S4, F4** safety sensors (function and type of contact)
- ▶ Close the door up to approx. 5 cm.
- ▶ Select the function **LE** in the Service menu.
- ▶ Teach the control by pressing the enter key.

**CAUTION****The leaves accelerate quickly when the leaf mass is being determined.**

- ▶ Step out of the travel path.

- The door leaves open and close several times. The control determines the following parameters:
 - **L0** Start learning
 - **L1** Check the rotary encoder
 - **L3** Opening width, closing position
 - **L2** Toothed belt locking
 - **L8** Friction
 - **L4** Leaf mass
 - **L5** Reduced opening width (with control DCU1-2M-NT only when a jumper is connected to set the reduced opening width on terminal strip PS between terminal 6 (NA) and terminal 2 (+24V))
 - The leaves come to a standstill with **L5**.
 - ▶ Push the leaves by hand to the required reduced opening width and confirm (↵).
- For doors on rescue routes, the reduced opening width must be larger than or the same size as the required escape route width (official building approval). The control limits the reduced opening width to at least 30 percent of the maximum opening width.
- Automatic acceptance of the current position occurs after 20 sec. only with control DCU1-NT.
 - **L7** End learning
 - ▶ Conform to store the values determined (↵).
 - If a fault occurs, the teaching process is aborted with the message **EL**.
 - ▶ Display the faults by pressing **Er**, eliminate the cause and start teaching again.
 - ▶ Remove the connection between terminals 2 and 6 of the control again.
 - ▶ Change to operating mode.
 - After a brand-new control has been taught, it automatically changes to mode of operation **RU**.
 - ▶ Check the running behaviour of the door and adjust other parameters if necessary.



- ▶ Clear fault memory $\square E$.
- ▶ Unplug display programme switch if necessary.

22.2.3 Commissioning with ST 220



CAUTION

Danger of injury from moving door leaves.

The door leaves move during commissioning.

- ▶ Step out of the door leaf travel path.

- ▶ If a sliding door on a rescue route is to be operated with reduced opening width, connect terminals 2 and 6 on the control DCU1-2M-NT.
- For sliding doors on rescue routes, the reduced opening width must correspond to the prescribed escape route width.
- ▶ Plug the rechargeable battery into the control.
- ▶ Switch on 230 V at the transformer.

After power supply has been restored, a brand-new control indicates the function non-taught initialisation on the ST 220. A control that has already been in operation will indicate the mode of operation last used before the power supply was switched off.

- For already taught controls, the mode of operation must be "Automatic", "Exit only", "Hold open" (teaching cannot be done in "OFF" and "Night mode").
- ▶ Set parameters for control, in particular:

▫ Number of leaves	Number of door leaves
▫ Drive type	Type of drive
▫ Drive serial no.	12-digit serial number of the drive
▫ Locking mechanism	electr. bolt type (if not two-stage locking)
▫ KI	Type of contact and delay contact sensor inside
▫ SI1, SI2, SI3, SI4	Type of contact and function of the safety sensors
- ▶ Close the door up to approx. 5 cm.
- ▶ Teach the drive by selecting "Start teaching -> yes".
- The door leaves open and close several times. The control determines the following parameters:

▫ Teaching programme rotary encoder	Check the rotary encoder
▫ Teaching programme opening width	Opening width, closing position
▫ Teaching programme bolt test	Toothed belt locking
▫ Teaching programme movement force	Movement force / friction
▫ Teaching programme acceleration	Leaf mass (the leaves accelerate quickly)
▫ Teaching programme reduced opening width	With control DCU1-2M-NT only when a jumper is connected to set the reduced opening width on terminal strip PS between terminal 6 (NA) and terminal 2 (+24V). The leaves come to a standstill in the teaching programme "reduced opening width".

 - ▶ Push the leaves to the required reduced opening width and confirm ($\leftarrow$) (automatic acceptance of the current position after 20 s only with DCU1-NT).

For doors on rescue routes, the reduced opening width must be larger than or the same size as the required escape route width (official building approval). The control limits the reduced opening width to at least 30 percent of the maximum opening width.
- Teaching programme quit teaching
- ▶ End of teaching



- ▶ Conform to store the values determined ($\leftarrow$).

If a fault occurs, teaching is aborted with the message "fault during teaching".

- ▶ Display the fault in the menu item "fault memory-current faults", eliminate the cause and start teaching again.
- ▶ Remove the connection between terminals 2 and 6 of the control again.
- ▶ Change to operating mode. After a brand-new control has been taught, it automatically changes to mode of operation AU.
- ▶ Check the running behaviour of the door and adjust other parameters if necessary.
- ▶ Clear the fault memory.
- ▶ Disconnect ST 220.

22.2.4 Functional check for the automatic sliding door

- ▶ Switch off drive at main switch and wait until rechargeable battery relay switches off.
- ▶ Switch the drive back on at the main switch.
 - Self-test runs.
- ▶ With the ST 220, select the OFF mode of operation or with the DPS, clear the motor gear unit F_r .
- ▶ Mount drive cover and turn locking pin back in if necessary.
- ▶ With the ST 220, select the H_u mode of operation; with the DPS, activate the motor gear unit F_o .
- ▶ Check function and detection area of all safety sensors "close".
- ▶ Check function and detection area of all safety sensors "open".
- ▶ Check the function of all contact sensors.
- ▶ Check locking by changing to mode of operation nH and unlocking by changing to mode of operation H_u .

22.2.5 Commissioning the interlocking door system and vestibule

Both controls are commissioned like two individual controls.

During the commissioning of one control, the other must be separated from the power supply.

- ▶ Set the parameters, see chapter 14 Interlocking door system, vestibule.
- ▶ Switch off both controls.
 - A programme switch is only connected to the first control.
- ▶ Switch both controls on within 50 s.

22.2.6 Documentation

- ▶ Create log book.
- ▶ Carry out safety analysis and enter installed safety options into the safety analysis.
- ▶ Supplement classification on identification plate.

22.3 Service

22.3.1 Service with DPS

After making changes at the drive, especially changes to the opening width, the drive must be retaught.

- ▶ Check function and correct setting of all safety sensors.
- ▶ Check function and correct setting of all activation sensors.
- ▶ Read out number of cycles and operating duration (menu item SA).
- ▶ Note faults in the fault memory E_r and oE .
- ▶ Clear fault memory oE .
- ▶ Reset service display (LS).

22.3.2 Service with ST 220

The drive must be re-taught after changes have been made, particularly after the opening width has been changed.

- ▶ Check function and correct setting of all safety sensors.
- ▶ Check function and correct setting of all activation sensors.
- ▶ Read out number of cycles and operating duration:
 - Menu item "Diagnosis → current values → internal values → cycles/operating hours"
- ▶ Read out fault memory and note faults:
 - Menu item "Diagnosis → fault memory → current faults / old faults"
- ▶ Select fault with * and confirm with (↵). Cause of fault is displayed.
- ▶ Clear fault memory:
 - Menu item "Diagnosis → clear fault memory"
- ▶ Reset service display:
 - Menu item "Diagnosis → clear maintenance → yes"

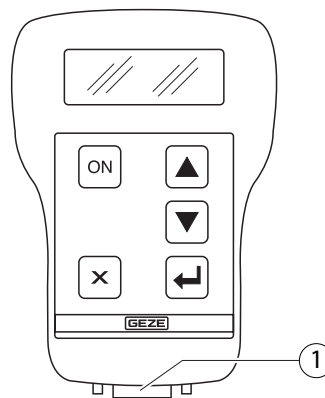
23 Service menu

23.1 ST 220 service terminal

- Service terminal ST 220, mat. no. 087261
- The drive can be commissioned with service terminal ST 220, software version from V2.1.

23.1.1 Operation ST 220

Key	Function
	Cursor upwards Increase number value Scroll upward (if key is pressed longer than 2 s)
	Downward cursor Decrease number value Scroll downward (if key is pressed longer than 2 s)
	Cancel input Any input can be aborted by pressing the key x. The input position then changes to the first menu position or one menu level back.
	Select Update display. Accept new value



Display directly after connection

GEZE
Service terminal
2.1
XXXXXXYYWWJJZZZZZZV

Software version ST 220 V2.1
Serial number ST 220

23.1.2 Service mode ST 220

- The change to service mode occurs when the service terminal is connected to the control.
- Service is possible in modes of operation LS, AU and DO.
- In service mode, the door remains in operation in the current mode of operation (not with teaching activated or with Fo display).

Display after connection to the door controller (example)

unknown	5.0 A0	unknown	Drive type, pre-setting is unknown. If parameters have been set for the drive type, this is displayed here, e.g. "SL NT".
SW version uC2	4.1	DCU_2M-NT	Control type
Automatic opens	Summer	Automatic summer opens	Current mode of operation
			Current status. If a fault is pending, the fault is shown rather than the status.
		5.0	Software version μ C1
		4.1	Software version μ C2 (only with DCU1-2M-NT)
		A0	Hardware version

23.1.3 Password prompt ST 220

If a password has been assigned in the menu "Diagnosis", "Change password", "Service 1", this is requested before the service menu can be entered.

Password 0--- *

- ▶ Enter the 4-digit password comprising figures and letters (0 ... 9, A ... Z, a ... z) using the keys  and .
- The position to be entered is indicated in the line below by the * symbol.
- ▶ Confirm entered position and change to next position using the  key.
- ▶ Cancel entry using the key x.
- ▶ After entering the password, confirm by pressing the  key.

23.1.4 Service menu ST 220

Mode of operation

Designation	Setting values		Explanation
			
Mode of operation	OFF Night mode Exit only Automatic Hold open	OFF Night mode Exit only Automatic Hold open	Current mode of operation is displayed and can be changed. If an MPS is connected, it is not possible to change the mode of operation using the ST 220.
Season	Summer Winter	Summer Winter	Full opening width Reduced opening width
Open doors	▲ - Key		

Door parameter

Designation	Setting values		Explanation
			
Number of leaves	Close on one side Close centrally	Close on one side Close centrally	–
Drive type	Unknown Slimdrive SC Slimdrive SF Slimdrive SL Slimdrive SL NT Slimdrive SL BO Slimdrive SL CO48 Slimdrive SLT Slimdrive SLV ECdrive ECdrive CO48 Powerdrive PL ECdrive BO TSA 360NT BO Powerdrive PL CO48 Slimdrive SL NT-CO48 ECdrive T2 ECdrive T2-CO48	Unknown Slimdrive SC Slimdrive SF Slimdrive SL Slimdrive SL NT Slimdrive SLT Slimdrive SLV ECdrive Powerdrive PL	–
Product serial number	000000000000	000000000000	12-digit serial number Current input position is marked with an asterisk. Select input position using ▲ or ▼ and confirm using ↵. Then select number using ▲ or ▼ and confirm using ↵.

Designation	Setting values		Explanation
			
Maintenance message after operating time	0, 1 ... 12 ... 99	0, 1 ... 12 ... 99	Months 0: no maintenance message
Maintenance message after cycles	0, 100,000 ... 500,000 ...3,000,000	0, 100,000 ... 500,000 ... 3,000,000	Cycles 0: no maintenance message Cycle: open from closing position and close completely again.
Interlocking door system, vestibule	Master Slave interlocking door system Slave vestibule	Master	Interlocking door system and vestibule: The same programme switch is used for two doors (DPS, TPS, MPS). Interlocking door system: In AU and LS one door only opens when the other one is closed. In DO and after activation KB one door opens independently of the other's status.
Power failure NA	No function Open	No function Open	–
Power failure not NA	No function Open Close 30 min. open 30 min. close	Open	Behaviour of the drive in case of a power failure in modes of operation LS, AU and DO. Open and switch off. Close and switch off. 30 min. max. 30 cycles with rechargeable battery, then open and switch off. 30 min. max. 30 cycles with rechargeable battery, then close and switch off.
Rechargeable battery fault	No function Open	Open	Open and switch off in modes of operation AU and LS.
Open in case of fault	No Yes	Yes	The door opens in the event of a fault (see fault list for details)
Electric locking mechanism	Without Bistable Motor-driven Fail-secure Fail-safe Lock A	Without Bistable Motor-driven Fail-secure Lock A	The two-stage locking is automatically detected during commissioning. If a different type of locking mechanism is used, parameters for this must be set before learning. Otherwise a fault message will appear during learning. Rod locking  only for motor gear unit DCU1-2M with fail-secure brake, mat. no. 117480 Hook bolt lock
ECO mode	Yes No	Yes No	ECO mode "Yes": Operating voltage for activation and safety sensors to terminal 4 (24Vsw), switch off for modes of operation DO and OFF (after 10 s) and NA (after 10 min).
GEZE bus address	0, 1 ... 63, 69	0, 1 ... 63, 69	0: No function 1 ... 63: GEZE bus address 69: GEZE IoT log

Movement parameters

Designation	Setting values		Explanation
			
Opening speed	03 04...10 12...20 25... 50 ...80	cm/s	Speed during opening *)
Closing speed	03 04...10 12... 20 25...80	cm/s	Speed during closing *)
Latching action open	00 01...07	cm/s	Final speed in the open position
Latching action closed	00 01...07	cm/s	Final speed in the closing position
Reduced profile	None	None	No reduced speed
	Open and closed	Open and closed	Reduced speed before open position and closing position
	Open Closed	Open Closed	Reduced speed before open position Reduced speed before closing position
Acceleration	1 ... 20 ...40	×10 cm/s ²	Acceleration and braking during opening and closing *)
*) The maximum speed and acceleration depend on the door weight and friction.			
Stat. force open	10 20... 150 ...250	N	Maximum static force during opening
Stat. force close	10 20... 150 ...250	N	Maximum static force during closing
 WARNING! ~~DIN 18650~~ ~~EN 16005~~ Forces greater than 150 N can lead to serious physical injuries and are not permitted as per DIN 18650/EN 16005. ► Note that forces exceeding 150 N are only permitted if additional safety measures are taken.			
Permanent closing pressure	00 01... 10 12...20 25 90	N	Force with which the drive presses on the door leaf in the closing position.
Initial closing pressure	00 01... 10 12...20 25... 120 ...150	N	Initial closing pressure helps the door leaf slide into a rubber seal. It is applied for 0.7 sec. as soon as the closing position has been reached.
Summer hold-open time	00 01 ...10 12...20 25...60	s	–
Winter hold-open time	00 01 ...10 12...20 25...60	s	–
Hold-open time contact authorised	00 01 ...10 12...20 25...60	s	–
Dyn. extension of hold-open time	No	No	Dynamic extension of hold-open time refers to the summer and winter hold-open times. If the door cannot close fully between 10 successive activations, the hold-open time is increased by one second, repeatedly if necessary. Once the door can close fully again, the configured hold-open time is used again.
	Yes	Yes	
Reversing limit	01 02... 06 ...10 12...20 25	mm	If the distance between the door leaves (single leaf: the distance between leaf and side panel) during closing is smaller than the reversing limit, the door does not reverse if it hits an obstacle. It stops at the obstacle. The reversing limit refers to one door leaf. For a 2-leaf door the reversing limit 06 corresponds to a gap of 12 mm between the two leaves.

Input signals

Safety sensors					
Designation	Setting values		Explanation		
					
SI1- terminal SIS1 current state	Indication of state, contact type and function		Safety device 1		
SI1- terminal SIS1 type of contact	Not used Normally closed contact	Not used Normally closed contact	–		
SI1 – terminal SIS1 function	SIS rev SIS and KI SIS and KA SIS slow SIO stop SIO slow SIO break-out	SIS rev SIS and KI SIS and KA SIS slow SIO slow	–	SIS rev SIS and KI SIS and KA SIS slow SIO stop SIO slow SIO break-out	Door reversing Reversing during closing. Activation function KI in the closing position. Reversing during closing. Activation function KA in the closing position. Door brakes and continues closing at a slower speed. Door stops during opening. Door brakes during opening and continues opening at slower speed. Door stops when break-out leaves are broken out
SI2 – terminal SIS2 current state	Indication of state, contact type and function		Safety device 2	SIS slow	
SI2 – terminal SIS2 contact type	Not used Normally closed contact	Not used Normally closed contact	–		
SI2 – terminal SIS2 function	SIS rev SIS and KI SIS and KA SIS slow SIO stop SIO slow SIO break-out	SIS rev SIS and KI SIS and KA SIS slow SIO slow	–		
SI3 – terminal SIO1 current state	Indication of state, contact type and function		Safety device 3		
SI3 – terminal SIO1 contact type	Not used Normally closed contact	Not used Normally closed contact	–		
SI3 – terminal SIO1 function	SIS rev SIS and KI SIS and KA SIS slow SIO stop SIO slow SIO break-out	SIS rev SIS and KI SIS and KA SIS slow SIO slow	–		
SI4 – terminal SIO2 current state	Indication of state, contact type and function		Safety device 4		
SI4 – terminal SIO2 contact type	Not used Normally closed contact	Not used Normally closed contact	–		
SI4 – terminal SIO2 function	SIS rev SIS and KI SIS and KA SIS slow SIO stop SIO slow SIO break-out	SIS rev SIS and KI SIS and KA SIS slow SIO slow	–		

Activation sensors				
Designation	Setting values		Explanation	
				
KB current state	Indication of state, contact type		Mechanical contact	
KB contact type	Not used Normally open contact	Not used Normally open contact	–	
KI current state	Indication of state, contact type and activa- tion delay		Contact sensor inside	
KI contact type	Not used Normally open contact		Voltage	Movement detector with voltage output
	Normally closed contact	Normally closed contact	Frequency	Movement detector with frequency output
	Voltage	Voltage		
	Frequency	Frequency		
KI delay	0 1...10 s	0 s	–	
KI Night mode waiting time	00 01 ... 10 12 ... 20 25 ... 90 s		After switching to night mode of operation, the drive can be activated another 2 x through KI within the set time.	
KA current state	Indication of state, contact type and activa- tion delay		Contact sensor outside	
KA contact type	Not used Normally open contact	Not used Normally open contact	–	
	Normally closed contact	Normally closed contact		
	Frequency	Frequency		
KA delay	0 1...10 s	0 1...10 s	–	
Mode of operation switchover				
Designation	Setting values		Explanation	
				
NA current state	Indication of state and contact type	–	Night mode; the mode of operation cannot be changed as long as this is active.	
NA contact type	Not used Normally open contact	Not used	–	
	Normally closed contact			
LS current state	Indication of state and contact type		Exit only; the mode of operation cannot be changed as long as this is active.	
LS contact type	Not used Normally open contact	Not used Normally open contact	–	
	Normally closed contact	Normally closed contact		
AU current state	Indication of state and contact type		Automatic; the mode of operation cannot be changed as long as this is active.	
AU contact type	Not used Normally open contact	Not used Normally open contact	–	
	Normally closed contact	Normally closed contact		
DO current state	Indication of state and contact type		Hold open; the mode of operation cannot be changed as long as this is active.	
DO contact type	Not used Normally open contact	Not used Normally open contact	–	
	Normally closed contact	Normally closed contact		

Configurable inputs				
Designation	Setting values			Explanation
				
PE1 current status	Indication of state and function			OFF
PE1 function	Not used	Not used		
	OFF	NO OFF	NO	
	Summer	NO Summer	NO	
	Winter	NO Winter	NO	
	Sabotage	NC Sabotage	NC	Summer
	Pharmacy	NO Pharmacy	NO	Winter
	P-KI activation	NO P-KI activation	NO	Sabotage
	P-KA activation	NO P-KA activation	NO	
	Push button	NO Push button	NO	
	OHZ push button	NO OHZ push button	NO	
	Reset push button	NO Reset push button	NO	
	Double push button	NO Double push button	NO	
	WC control	NO		
			Limited opening width	In NA: first flank opens 10–15 cm and locks, second closes and locks.
			MPS	A mode of operation change via TPS, DPS or the mode of operation inputs NA, LS, AU, DO and OFF is not possible.
PE2 current state	Indication of state and function			Emergency lock
PE2 function	Not used	Not used		
	MPS	MPS		
	OFF	NO OFF	NO	
	Summer	NO Summer	NO	
	Winter	NO Winter	NO	
	Sabotage	NC Sabotage	NC	
	Pharmacy	NO Pharmacy	NO	
	Emergency lock 20k	NO		
	P-KI activation	NO P-KI activation	NO	P-KI activation
	P-KA activation	NO P-KA activation	NO	P-KA activation
	Push button	NO Push button	NO	Push button
	OHZ push button	NO OHZ push button	NO	OHZ push button
	Emergency stop 12k	NC		
	Reset push button	NO Reset push button	NO	
	Double push button	NO Double push button	NO	
	Manual unlocking	NO Manual unlocking	NO	
	WC control	NO		
	Emergency stop 20k	NC		
	Stop NO	NO		
	Stop NC	NC		
PE3 current state	Indication of state and function			Reset push button
				The control is rebooted.

Configurable inputs					
Designation	Setting values		Explanation		
PE3 function	Not used	Not used	Double push button	Press 1x:	reduced opening width
	MPS	MPS		Press 2x:	full opening width
	OFF	NO OFF	NO	Manual unlocking	The door leaves can be moved by hand.
	Summer	NO Summer	NO	Emergency stop 12k	Function emergency stop button, normally closed contact with 12k terminating resistance
	Winter	NO Winter	NO	Emergency stop 20k	Function emergency stop button, normally closed contact with 20k terminating resistance
	Sabotage	NC Sabotage	NC	Stop NO	Function stop, normally closed contact without terminating resistance
	Pharmacy	NO Pharmacy	NO	Stop NC	Function stop, normally open contact without terminating resistor
	Emergency lock 20k	NO			
	P-KI activation	NO P-KI activation	NO		
	P-KA activation	NO P-KA activation	NO		
	Push button	NO Push button	NO		
	OHZ push button	NO OHZ push button	NO		
	Emergency stop 12k	NC			
	Reset push button	NO Reset push button	NO		
	Double push button	NO Double push button	NO		
	WC control	NO			
	Emergency stop 20k	NC			
	Stop NO	NO			
	Stop NC	NC			
		KI2	NC		

Output signals

Configurable outputs					
Designation	Setting values		Explanation		
PA1 current state	–		Gong	Active if an SIS is activated in AU, LS or DO.	
PA1 function	Not used	Not used	Fault	Collective problem signal	
	Gong	Gong	Fault MPS	For activation of the LED on the MPS:	
	Fault NO contact	Fault NO contact		▫ Collective problem signal	
	Fault normally closed contact	Fault normally closed contact		▫ Maintenance message	
	Fault MPS	Fault MPS	Warn	Active if the door continues moving despite active safety device at reduced speed.	
	Warn	Warn	Motor gear unit brake	CO48 pre-setting with drive SL CO48 and ECdrive CO48.	
	Motor gear unit brake	Motor fan		0.7 s after the closing position has been reached, the motor brake is energised to hold the rubber cable (relieves motor gear unit).	
	Motor fan	Locked closed		Active if motor temperature is higher than 67°C	
	Locked closed	Closed	Open	Active if leaf is in current open position	
	Closed	Not closed	Light control	Output is active following activation for the duration of activation + 1 s.	
	Not closed	Open			
	Open	Off			
	Off	Night mode			
	Night mode	Exit only			
	Exit only	Automatic			
	Automatic	Hold open			
	Hold open	Light control			
	Light control	Opens			
	Opens	Does not open			
	Does not open	Maintenance due			
	Maintenance due	F-manual unlocking	F-manual unlocking	Manual unlocking Lock A activated	
	F-manual unlocking	F-WC timeout			
	F-WC timeout		F-WC time-out	Toilet locked for longer than 30 minutes	
PA2 current status	–		Opens	Interlocking door system can be entered	

Configurable outputs				
Designation	Setting values		Explanation	
				
PA2 function	Not used Gong Fault NO contact Fault normally closed contact Fault MPS Warn Motor gear unit brake Motor fan Locked closed Closed Not closed Open Off Night mode Exit only Automatic Hold open Light control Opens Does not open Maintenance due F-manual unlocking F-WC timeout	Not used Gong Fault NO contact Fault normally closed contact Fault MPS Warn Motor fan Locked closed Closed Not closed Open Off Night mode Exit only Automatic Hold open Light control Maintenance due F-manual unlocking	Does not open	Interlocking door system is in use and can not be entered

Diagnosis

Designation	Setting values	Explanation
Current values	SI1, SI2, SI3, SI4	V
	STOP	
	KB, KI, KA	
	NA, LS, AU, DO	
	PE1, PE2, PE3	
	Bolt 1, bolt 2	
	PA1, PA2	V
	Bolt	
	TST	
	Current Position	mm
	Current Motor current	A
	Mains voltage	on/off
	Rechargeable battery voltage	V
	24 V internal	V
	DCU100 temperature	°C
	DCU101 temperature	°C
	Motor gear unit DCU100 temperature	°C
Current states	Cycles	Hours
	Operating hours	
	Tests	
	SI1, SI2, SI3, SI4	The logical state of the signal is displayed (active, inactive, fault).
	STOP	
	KB, KI, KA	
	NA, LS, AU, DO	
	PE1, PE2, PE3	
	Bolt 1, bolt 2	
	PA1, PA2	
	Bolt	
	TST	
	ECO mode	
	IoT module (GN)	
	Connection (BU)	
	CCDMS (YE)	

Designation	Setting values	Explanation
Error memory	Current errors	Ser. no., fault text, fault number
	Old errors	Select fault marked by * and press the ↵ key, reason for fault will be displayed.
	Clear current faults	–
	Clear old faults	–
Configuration	Opening width	left/right, mm
	Bolt type	
	Rechargeable battery	without / 700 mAh
	Leaf mass	kg
	Type	–
	Date of manufacture	
	Time of manufacture	
	SVN no.	
	CRC	
	ID-no.	
Start production test	CANopen stack	
	GDB version	
myGEZE Bluetooth module	yes/no	
myGEZE Cloud Link	Software	
	Start BT pairing	

Further settings

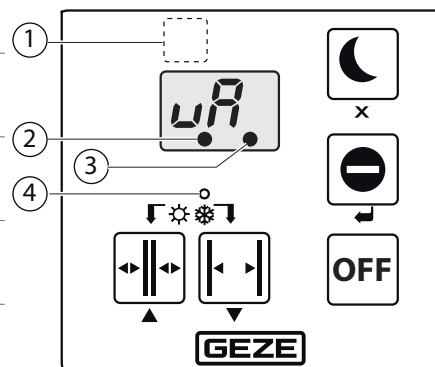
Designation	Setting values	Explanation
Start teaching	yes/no	
Factory setting	yes/no	
Default values	yes/no	(taught values are retained)
Clear maintenance	yes/no	Clear maintenance display
Change password	Password Service 1 Password old 0000 Password new	Password Service 1: for access to the Service menu with ST 220. Password TPS, DPS: is used to enable the TPS or DPS instead of enabling via a key switch. Access is blocked automatically after 2 minutes if no key has been pressed. The first digit indicates how often the key ▲ has to be activated and the second digit how often the key ▼ has to be activated to release operation of the TPS/DPS. Entry of the password with ST 220: ▶ Change figures using ▲ or ▼. ▶ Conform figure and change to next position using ↵. ▶ Abort with x. ▶ Display of the current position by the asterisk under it. ▶ After entry, press ↵ to confirm the password. After 2 minutes without keys being pressed or the next time the Service menu is requested, the password will be queried so that changes to the mode of operation setting or the parameter settings can be made. Important information: ▫ When the password for ST 220 is set, access to the Service menu via DPS is no longer possible. ▫ If the password has been forgotten, a special flash file with which the password on the control can be reset to 00 has to be requested from GEZE. ▫ The password cannot be deleted by installing a new software version.
Language	German English Français Italiano Espanol	Language of the service terminal

23.2 Display programme switch DPS

The DPS can be used for commissioning and service.

- for changing the drive parameters
- for teaching the drive
- for diagnosis

Key		Function in service mode	
	<i>nR</i>	Night mode	× Cancel and return to first menu level
	<i>LS</i>	Exit only	↵ Confirm
	<i>Ru</i>	Automatic	▲ Scroll up increase value
	<i>do</i>	Hold open	▼ Scroll down Reduce value
	<i>OF</i>	Off	(Only with mat. no. 152524/ 155810) drive switched without function for service purposes (drive is not with- out voltage)
▲ + ▼ simultaneously	Change Summer (full opening width) Winter (reduced opening width)	-	-
Service button (1) Change mode of operation / service mode + ↵ simultane- ously			



- 1 Service key
- 2 Position unknown
- 3 Illuminated for maintenance
- 4 Display summer/winter (LED lights up for winter opening width)

Scroll function

In the Service menu, it is possible to scroll through the menu or value settings by pressing the ▲ or ▼ keys.

23.2.1 Service mode DPS

- It is possible to change to the service mode in the modes of operation *oFF*, *LS*, *Ru* and *do*.
- If no key is pressed for 5 minutes in service mode, the system automatically changes to operating mode (not when *Fo* is displayed).
- In service mode, the door remains in operation in the current mode of operation (not with teaching activated or when *Fo* is displayed).
- When GEZEconnects or the service terminal ST 220 is active at a drive, the service mode is blocked via the DPS. If an attempt is made to activate the service mode, this state is displayed with "nS" (no service) on the DPS.

23.2.2 Service menu DPS

1st menu

Display	Explanation	Setting values
u0	Opening speed	03 04...10 12...20 25... 50 80 cm/s *)
u1	Closing speed	03 04...10 12... 20 25...50 80 cm/s *)
S0	Latching action open	00 01...07 cm/s
S1	Latching action closed	00 01...07 cm/s
oH	Summer hold-open time	00 01 ...10 12...20 25...60 s
or	Winter hold-open time (reduced opening width)	00 01 ...10 12...20 25...60 s
o5	Hold-open time contact authorised	00 01 ...10 12...20 25...60 s
od	Dynamic extension of the hold-open time	00 no 01 yes
b0	Acceleration	1...10 12... 20 25...40 × 10 cm/s ² *) (multiply value displayed by 10)
ur	Reduced profile	00 no reduced speed 01 reduced speed before open position and before closing position 02 reduced speed before open position 03 reduced speed before closing position
F0	Static force open	01 10 15 20 25 × 10 N (multiply value displayed by 10)
FC	Static force closed	01 10 15 20 25 × 10 N (multiply value displayed by 10)
CF	Permanent closing pressure	00 01... 10 12...20 25...50 60...90
CL	Reversing limit	01 02... 06 ...10 12...20 25 mm
nE	Switch to 2 nd menu	–



~~DIN 18650~~
~~EN 16005~~

WARNING!
Forces greater than 150 N can lead to serious physical injuries and are not permitted as per DIN 18650/EN 16005.

► Note that forces exceeding 150 N are only permitted if additional safety measures are taken.

*) The maximum speed and acceleration depend on the door weight and friction.

2nd menu

Display	Explanation	Setting values	
			
S1	Safety 1 contact type (terminal SIS1)	00 Not used 02 Normally closed contact	00 Not used 02 Normally closed contact
F1	Safety 1 function (terminal SIS1)	01 SIS rev 02 SIS and KI 03 SIS and KA 04 SIS slow 05 SIO stop 06 SIO slow 07 SIO break-out	01 SIS rev 02 SIS and KI 03 SIS and KA 04 SIS slow 06 SIO slow
S2	Safety 2 contact type (terminal SIS2)	00 Not used 02 Normally closed contact	00 Not used 02 Normally closed contact
F2	Safety 2 function (terminal SIS2)	01 SIS rev 02 SIS and KI 03 SIS and KA 04 SIS slow 05 SIO stop 06 SIO slow 07 SIO break-out	01 SIS rev 02 SIS and KI 03 SIS and KA 04 SIS slow 06 SIO slow
S3	Safety 3 contact type (terminal SIO1)	00 Not used 02 Normally closed contact	00 Not used 02 Normally closed contact
F3	Safety 3 function (terminal SIO1)	01 SIS rev 02 SIS and KI 03 SIS and KA 04 SIS slow 05 SIO stop 06 SIO slow 07 SIO break-out	01 SIS rev 02 SIS and KI 03 SIS and KA 04 SIS slow 06 SIO slow
S4	Safety 4 contact type (terminal SIO2)	00 Not used 02 Normally closed contact	00 Not used 02 Normally closed contact
F4	Safety 4 function (terminal SIO2)	01 SIS rev 02 SIS and KI 03 SIS and KA 04 SIS slow 05 SIO stop 06 SIO slow 07 SIO break-out	01 SIS rev 02 SIS and KI 03 SIS and KA 04 SIS slow 06 SIO slow
Eb	Mechanical contact, contact type	00 Not used 01 Normally open contact	00 Not used 01 Normally open contact
Ei	Contact sensor inside contact type	00 Not used 01 Normally open contact 02 Normally closed contact 03 Voltage 04 Frequency	 02 Normally closed contact redundant 03 Voltage 04 Frequency
Ri	Contact sensor inside activation delay	00 01 ... 10s	00 s
nt	KI Night mode waiting time	00 01 ... 10 12 ... 20 25 ... 90 s	After switching to night mode of operation, the drive can be activated another 2 x through KI within the set time.
Es	Contact sensor outside contact type	00 Not used 01 Normally open contact 02 Normally closed contact 04 Frequency	00 Not used 01 Normally open contact 02 Normally closed contact 04 Frequency
Ra	Contact sensor outside activation delay	00 10 s	00 10 s

Display	Explanation	Setting values	
			
E1	Configurable input 1	00 Not used	00 Not used
		02 Mode of operation OFFNO	02 Mode of operation OFF NO
		03 Summer NO	03 Summer NO
		04 Winter NO	04 Winter NO
		05 Sabotage NC	05 Sabotage NC
		06 Pharmacy NO	06 Pharmacy NO
		08 P-KI activation NO	08 P-KI activation NO
		09 P-KA activation NO	09 P-KA activation NO
		10 Switch function NO	10 Switch function NO
		11 Switch function, close after a5 NO	11 Switch function, close after a5 NO
		13 Reset push button NO	13 Reset push button NO
		14 Double push button NO	14 Double push button NO
		21 WC control NO	
E2	Configurable input 2	00 Not used	00 Not used
		01 MPS	01 MPS
		02 Mode of operation OFFNO	02 Mode of operation OFF NO
		03 Summer NO	03 Summer NO
		04 Winter NO	04 Winter NO
		05 Sabotage NC	05 Sabotage NC
		06 Pharmacy NO	06 Pharmacy NO
		07 Emergency lock NO	
		08 P-KI activation NO	08 P-KI activation NO
		09 P-KA activation NO	09 P-KA activation NO
		10 Switch function NO	10 Switch function NO
		11 Switch function, close after a5 NO	11 Switch function, close after a5 NO
		12 Emergency stop 12k	
		13 Reset push button NO	13 Reset push button NO
		14 Double push button NO	14 Double push button NO
		20 Manual unlocking NO	20 Manual unlocking NO
		21 WC control NO	
		23 Emergency stop 20k NC	
		24 Stop NO NO	
		25 Stop NC NC	
E3	Configurable input 3	00 Not used	00 Not used
		01 MPS	01 MPS
		02 Mode of operation OFFNO	02 Mode of operation OFF NO
		03 Summer NO	03 Summer NO
		04 Winter NO	04 Winter NO
		05 Sabotage NC	05 Sabotage NC
		06 Pharmacy NO	06 Pharmacy NO
		07 Emergency lock NO	
		08 P-KI activation NO	08 P-KI activation NO
		09 P-KA activation NO	09 P-KA activation NO
		10 Switch function NO	10 Switch function NO
		11 Switch function, close after a5 NO	11 Switch function; close after a5 NO
		12 Emergency stop 12k	
		13 Reset push button NO	13 Reset push button NO
		14 Double push button NO	14 Double push button NO
		21 WC control NO	
		23 Emergency stop 20k NC	22 Contact sensor inside 2 NC
		24 Stop NO NO	
		25 Stop NC NC	

Display	Explanation	Setting values	
			
R1	Configurable output 1	00 Not used 01 Gong 02 Fault normally opened contact 03 Fault normally closed contact 04 Fault for MPS 05 Warning signal 06 Motor gear unit brake 07 Motor fan 08 Closed and locked 09 Closed 10 Not closed 11 Open 12 OFF 13 NA 14 LS 15 AU 16 DO 17 Light control 18 Opens when activated 19 Does not open when activated 20 Maintenance due 23 Manual locking fault 24 WC timeout fault	00 Not used 01 Gong 02 Fault normally opened contact 03 Fault normally closed contact 04 Fault for MPS 05 Warning signal 07 Motor fan 08 Closed and locked 09 Closed 10 Not closed 11 Open 12 OFF 13 NA 14 LS 15 AU 16 DO 17 Light control 20 Maintenance due 23 Manual locking fault
R2	Programmable output 2	00 Not used 01 Gong 02 Fault normally opened contact 03 Fault normally closed contact 04 Fault for MPS 05 Warning signal 06 Motor gear unit brake 07 Motor fan 08 Closed and locked 09 Closed 10 Not closed 11 Open 12 OFF 13 NA 14 LS 15 AU 16 DO 17 Light control 18 Opens when activated 19 Does not open when activated 20 Maintenance due 23 Manual locking fault 24 WC timeout fault	00 Not used 01 Gong 02 Fault normally opened contact 03 Fault normally closed contact 04 Fault for MPS 05 Warning signal 07 Motor fan 08 Closed and locked 09 Closed 10 Not closed 11 Open 12 OFF 13 NA 14 LS 15 AU 16 DO 17 Light control 20 Maintenance due 23 Manual locking fault
nE	Switch to 3 rd menu	–	–

3rd menu

Display	Explanation	Setting values	
			
<i>Er</i>	Currently queued errors	CE Clear error memory	Clear error memory
<i>oE</i>	Old faults (the last 10 faults)	CE Clear error memory	Clear error memory
<i>d</i>	Diagnosis	r0 Without locking mechanism r1 With locking mechanism A0 Without rechargeable battery A1 With rechargeable battery xx Leaf weight (x 100 kg) yy + leaf weight (x kg) S8 ECO mode	r0 Without locking mechanism r1 With locking mechanism A0 Without rechargeable battery A1 With rechargeable battery xx Leaf weight (x 100 kg) yy + leaf weight (x kg) S8 ECO mode
<i>S8</i>	ECO mode	00 Off 01 On	00 Off 01 On
<i>St</i>	Control type	00 DCU1-NT 01 DCU1-RD * 02 DCU1-T30 * 03 DCU1-NT-OP * * Special software	20 DCU1-2M_NT 21 DCU1-2M-DUO * 22 DCU1-2M-LL * 23 DCU1-2M-RWS *
<i>SR</i>	Operating duration (6-digit display)	Co Number of cycles / 100 Ho Operating hours / 4 Fo Number of self-tests	Co Number of cycles / 100 Ho Operating hours / 4 Fo Number of self-tests
<i>CS</i>	Switch off service LED	cS Displayed briefly for ac- knowledge	cS Displayed briefly for ac- knowledge
<i>CP</i>	Restore factory setting	–	–
<i>Fr / Fo</i>	Enable/activate motor gear unit	–	–
<i>SP</i>	Language	00 German 01 English 02 Français 04 Italiano 05 Espanol	00 German 01 English 02 Français 04 Italiano 05 Espanol
<i>LE</i>	Start teaching	–	–
<i>EP</i>	Software version	e.g. St 40 for DCU1-NT V4.0	e.g. St 40 for DCU1-2M-NT V4.0
<i>bt</i>	Start BT pairing	bP BT pairing started b- BT pairing not possible	

4th menu

Display	Explanation	Setting values	
			
<i>Rt</i>	Drive type	00 Unknown 01 Slimdrive SC 02 Slimdrive SF 03 Slimdrive SL 04 Slimdrive SL NT 05 Slimdrive SL BO 06 Slimdrive SL CO48 07 Slimdrive SLT 08 Slimdrive SLV 09 ECdrive 10 ECdrive CO48 11 Powerdrive PL 12 ECdrive BO 13 TSA 360NT BO 14 Powerdrive PL CO48 15 Slimdrive SL NT-CO48 17 ECdrive T2 18 ECdrive T2-CO48	00 Unknown 01 Slimdrive SC 02 Slimdrive SF 03 Slimdrive SL 04 Slimdrive SL NT 07 Slimdrive SLT 08 Slimdrive SLV 09 ECdrive 11 Powerdrive PL 17 ECdrive T2
<i>EF</i>	Number of door leaves	01 Close on one side 02 Close centrally	01 Close on one side 02 Close centrally
<i>RC</i>	Power failure in LS, AU or DO	00 No function 01 Open 02 Close 03 Rechargeable battery operation 30 min., then open 04 Rechargeable battery operation 30 min., then close	01 Open
<i>Eo</i>	Open after fault	00 Door remains closed 01 Door opens after fault (see fault list for details)	01 Door opens after fault
<i>rt</i>	Bolt type The two-stage locking is automatically detected during commissioning. If a different type of locking mechanism is used, parameters for this must be set before learning. Otherwise a fault message will appear during learning.	00 No locking mechanism 01 Bistable 02 Motor-driven 03 Fail-secure 04 Fail-safe 05 Lock A (hook bolt lock)	00 No locking mechanism 01 Bistable 02 Motor-driven 03 Fail-secure  only for motor gear unit DCU1-2M with fail-secure brake, mat. no. 117480 05 Lock A (hook bolt lock)
<i>SL</i>	Interlocking door system, vestibule	00 Master 01 Slave interlocking door system 02 Slave vestibule	00 Master
<i>CR</i>	CAN address (GEZE building system)	GEZE bus address: 00 ...63 69	00 ...63 69 00: No function 01 ... 63: GEZE bus address 69: GEZE IoT log

24 Error messages

24.1 Display programme switch/service terminal ST 220

For troubleshooting and fault descriptions see "Faults and measures for controls DCU1-NT and DCU1-2M-NT". Current active fault messages are briefly displayed cyclically (10 sec.) at the display programme switch during operation. In addition, they are also entered in the E - and aE fault memories.

Display	Error message	Cause
01	24 V	Control defective.
02	12 V	Control defective.
03	230 V	Power failure
07	Fire alarm	Smoke detector active or power failure. ³⁾
08	Smoke alarm	Smoke detector active. ⁴⁾
10	Rotary encoder	Rotary encoder signal faulty.
11	short-circuit	Current through motor gear unit 1 too high.
12	Motor gear unit	Motor gear unit 1 defective.
13	SIS1	Testing: SIS1 is not switching or safety sensor "close 1" faulty or activation takes longer than 4 min.
14	MPS	Control cable break – mechanical programme switch.
15	Display programme switch	No communication between control – display programme switch.
16	Lock	Locking mechanism does not lock.
17	Unlock	Locking mechanism does not unlock.
18	Bolt message	Signals locked and unlocked are sent simultaneously.
19	SIS2	Testing: SIS2 is not switching or safety sensor "close 2" faulty or activation takes longer than 4 min.
25	Open	Obstacle while opening. ²⁾
26	Initialisation	Taught opening width is not reached.
27	SIO Active	Safety sensor "open" or break-out sensor ⁵⁾ is active. ⁶⁾
28	Motor relay	Motor relay in control DCU100 defective.
29	SIO2	SIO2 or break-out sensor ⁵⁾ is not switching or activation takes longer than 4 min.
30	myGEZE Bluetooth module	Fault in the module
32	Sabotage	Sabotage active. ⁶⁾
33	Interlocking door system, vestibule	Second drive is not reacting. ^{1) 6)}
34	TPS	No communication between control – keypad programme switch.
35	Limited opening width	Activation longer than 4 min.
36	Control	Redundancy: Internal redundancy fault of the control. ²⁾
37	KI1	Movement detector defective or activation longer than 4 min.
38	KI2	Movement detector defective or activation longer than 4 min. ²⁾
39	KA	Activation longer than 4 min.
40	KB	Activation longer than 4 min.
41	SIO1	SIO1 or break-out sensor ⁵⁾ is not switching or activation takes longer than 4 min.
42	NOTVER	Emergency lock is activated. ¹⁾
44	STOP	STOP is active. ¹⁾
45	DCU100 drive hot	Temperature > 110 °C (motor gear unit or control DCU100).
46	Motor gear unit gear unit temp. sensor	Motor gear unit temperature sensor defective.
47	DCU100 temperature sensor	Temperature sensor in control DCU100 defective.
48	DCU100 drive overheated	Temperature > 115 °C (motor gear unit or control DCU100).
50	DCU1-T30	Fault while testing DCU1-T30 expansion. ³⁾
51	DCU1-2M-LL, DCU1-2M-RWS	Fault on brake (outputs PA1/PA2 do not open). Emergency push button pressed (motor brake enabled via emergency button, door opens immediately).
52	CAN	Fault CAN interface or cabling.
53	Manual unlocking	Lock A has been unlocked by hand.
54	Communication DPS	Interference of communication with DPS.
59	myGEZE Cloud Link	Fault interface to GEZE Cloud.
60	DCU100	Fault in control DCU100.
61	Rechargeable battery	Rechargeable battery flat.

Display	Error message	Cause
63	Software	Software controller 1 / controller 2 not compatible. ²⁾
64	Open during testing	Door not open in required opening time. ²⁾
65	Programme sequence	Fault in internal computer monitoring. ²⁾
70	DCU101	Fault in control DCU101. ²⁾
71	Short-circuit DCU101	Current through motor gear unit 2 too high. ²⁾
72	Motor gear unit DCU101	Motor gear unit 2 defective. ²⁾
75	Control hot DCU101	Temperature > 110 °C (control DCU101). ²⁾
77	DCU101 temperature sensor	Temperature sensor in control DCU101 defective. ²⁾
78	DCU101 control overheated	Temperature > 115 °C (motor gear unit or control DCU101). ²⁾
79	DCU101 motor gear unit relay	Motor relay in control DCU101 defective. ²⁾
90	Control	Control defective.
91	Rotary encoder, motor gear unit gear unit	No pulses from rotary encoder.
x.x	Position	Leaf position unknown (dot on left display).
xx.	Maintenance	Maintenance requirement (number of cycles, operating hours, dot on right display).
EL	Teach	Fault during teaching of the control.
8.8.	Display programme switch	No communication between control – display programme switch.

- 1 with DCU1-NT
 2 with DCU1-2M-NT
 3 with DCU1-T30
 4 with DCU1-RD
 5 with DCU1-BO
 6 with DCU1-NT; with these faults the door does not open if the parameter "Open in case of fault" is switched on.

24.2 Keypad programme switch

Display keypad programme switch	Designation	Display display programme switch
    		
– – – – –	No operating voltage	
– – – x x	Drive too hot	45, 46, 48, 75, 78
– – x – x	Position	26, x.x
– – x x –	SIS	13, 19
– – x x x	Motor gear unit	10, 11, 12, 71, 72
– x – – x	Activation takes longer than 4 min	35, 36, 37, 38, 39, 40
– x – x –	Communication	15, 30, 34, 52, 54, 59
– x – x x	Interlocking door system, vestibule	33
– x x – –	Rechargeable battery	61
– x x x –	Opening time too long	64
x – – – x	Alarm	07, 08, 32, 42, 44
x – – x x	DCU104	50
x – x – –	SIO, BO	27, 29, 41
x x – – –	Power failure	03
x x – – x	Control	01, 02, 28, 47, 60, 63, 65, 70, 77, 79
x x x – –	Locking mechanism	16, 17, 18, 51, 53
–	LED off	
x	LED on	

- In addition, the following states are displayed:
 - Non-taught winter LED flashes continuously (1 sec. on, 3 sec. off).
 - Maintenance winter LED flashes continuously (0.5 sec. on, 0.5 sec. off).
 - Fault mode of operation displayed for 5 sec., fault code for 2 sec.
 - Block active. Current mode LED flashes once if a key is pressed.

Germany

GEZE GmbH
Niederlassung Süd-West
Tel. +49 (0) 7152 203 594
E-Mail: leonberg.de@geze.com

GEZE GmbH
Niederlassung Süd-Ost
Tel. +49 (0) 7152 203 6440
E-Mail: muenchen.de@geze.com

GEZE GmbH
Niederlassung Ost
Tel. +49 (0) 7152 203 6840
E-Mail: berlin.de@geze.com

GEZE GmbH
Niederlassung Mitte/Luxemburg
Tel. +49 (0) 7152 203 6888
E-Mail: frankfurt.de@geze.com

GEZE GmbH
Niederlassung West
Tel. +49 (0) 7152 203 6770
E-Mail: duesseldorf.de@geze.com

GEZE GmbH
Niederlassung Nord
Tel. +49 (0) 7152 203 6600
E-Mail: hamburg.de@geze.com

GEZE Service GmbH
Tel. +49 (0) 1802 923392
E-Mail: service-info.de@geze.com

Austria

GEZE Austria
E-Mail: austria.at@geze.com
www.geze.at

Baltic States –

Lithuania / Latvia / Estonia
E-Mail: baltic-states@geze.com

Benelux

GEZE Benelux B.V.
E-Mail: benelux.nl@geze.com
www.geze.be
www.geze.nl

Bulgaria

GEZE Bulgaria - Trade
E-Mail: office-bulgaria@geze.com
www.geze.bg

China

GEZE Industries (Tianjin) Co., Ltd.
E-Mail: chinasales@geze.com.cn
www.geze.com.cn

GEZE Industries (Tianjin) Co., Ltd.
Branch Office Shanghai
E-Mail: chinasales@geze.com.cn
www.geze.com.cn

GEZE Industries (Tianjin) Co., Ltd.
Branch Office Guangzhou
E-Mail: chinasales@geze.com.cn
www.geze.com.cn

GEZE Industries (Tianjin) Co., Ltd.
Branch Office Beijing
E-Mail: chinasales@geze.com.cn
www.geze.com.cn

France

GEZE France S.A.R.L.
E-Mail: france.fr@geze.com
www.geze.fr

Hungary

GEZE Hungary Kft.
E-Mail: office-hungary@geze.com
www.geze.hu

Iberia

GEZE Iberia S.R.L.
E-Mail: info.es@geze.com
www.geze.es

India

GEZE India Private Ltd.
E-Mail: office-india@geze.com
www.geze.in

Italy

GEZE Italia S.r.l Unipersonale
E-Mail: italia.it@geze.com
www.geze.it

GEZE Engineering Roma S.r.l
E-Mail: italia.it@geze.com
www.geze.it

Korea

GEZE Korea Ltd.
E-Mail: info.kr@geze.com
www.geze.com

Poland

GEZE Polska Sp.z o.o.
E-Mail: geze.pl@geze.com
www.geze.pl

Romania

GEZE Romania S.R.L.
E-Mail: office-romania@geze.com
www.geze.ro

Russia

OOO GEZE RUS
E-Mail: office-russia@geze.com
www.geze.ru

Scandinavia – Sweden

GEZE Scandinavia AB
E-Mail: sverige.se@geze.com
www.geze.se

Scandinavia – Norway

GEZE Scandinavia AB avd. Norge
E-Mail: norge.se@geze.com
www.geze.no

Scandinavia – Denmark

GEZE Danmark
E-Mail: danmark.se@geze.com
www.geze.dk

Singapore

GEZE (Asia Pacific) Pte, Ltd.
E-Mail: gezesea@geze.com.sg
www.geze.com

South Africa

GEZE South Africa (Pty) Ltd.
E-Mail: info@gezesa.co.za
www.geze.co.za

Switzerland

GEZE Schweiz AG
E-Mail: schweiz.ch@geze.com
www.geze.ch

Turkey

GEZE Kapı ve Pencere Sistemleri
E-Mail: office-turkey@geze.com
www.geze.com

Ukraine

LLC GEZE Ukraine
E-Mail: office-ukraine@geze.com
www.geze.ua

United Arab Emirates/GCC

GEZE Middle East
E-Mail: gezeme@geze.com
www.geze.ae

United Kingdom

GEZE UK Ltd.
E-Mail: info.uk@geze.com
www.geze.com

GEZE GmbH

Reinhold-Vöster-Straße 21–29
71229 Leonberg
Germany

Tel.: 0049 7152 203 0
Fax.: 0049 7152 203 310
www.geze.com

