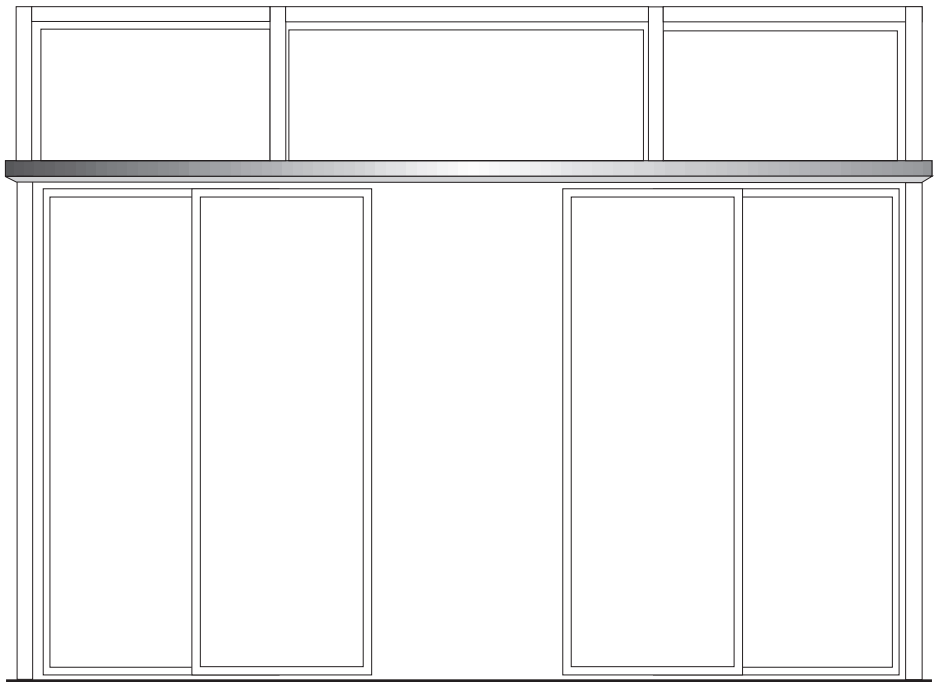


Automatic sliding doors

Door controllers

DCU1-NT

DCU1-2M-NT

EN Wiring diagram

160924-02

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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.
DIN 18650 EN 16005	Conforms to DIN 18650/ EN 16005	Symbol in a table or relating to information on safety sensors that are standard-compliant.
DIN 18650 EN 16005	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 DGUV V1 (BGV A1) “General regulations”
  - DGUV 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.

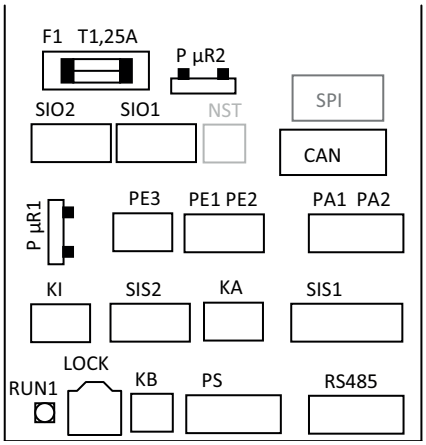
3 Abbreviations

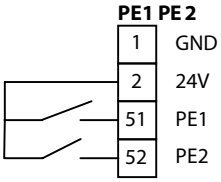
Wire colours

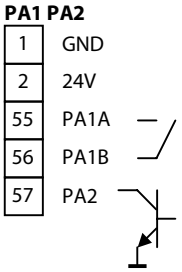
BN	brown	GN	green	OG	orange	TQ	turquoise
BK	black	GY	grey	PK	pink	VT	violet
BU	blue	YE	yellow	RD	red	WH	white

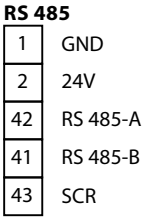
Connections, terminals and plugs

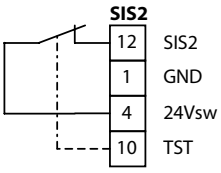
AIR	Active infrared detector
APO	Pharmacy opening
AU	Automatic
DO	Hold open
DPS	Display programme switch
ENC	Incremental encoder
GND	Reference potential
IR	Infrared
KA	Contact sensor outside
KB	Mechanical contact
KI	Contact sensor inside
LK	Luster terminal
LCK_A	Locking mechanism, A
LCK_B	Locking mechanism,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

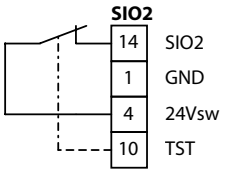

F1 T1,25A
P µR2
SIO2
SIO1
NST
SPI
CAN
P µR1
PE3
PE1 PE2
PA1 PA2
KI
SIS2
KA
SIS1
LOCK
RUN1
KB
PS
RS485

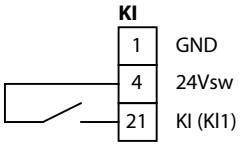

PE1 PE 2
1 GND
2 24V
51 PE1
52 PE2

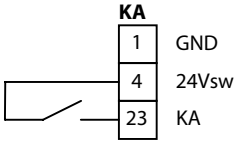

PA1 PA2
1 GND
2 24V
55 PA1A
56 PA1B
57 PA2

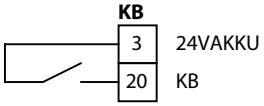

RS 485
1 GND
2 24V
42 RS 485-A
41 RS 485-B
43 SCR

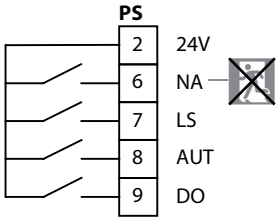

SIS2
12 SIS2
1 GND
4 24Vsw
10 TST

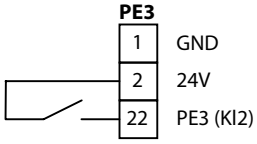

SIO2
14 SIO2
1 GND
4 24Vsw
10 TST

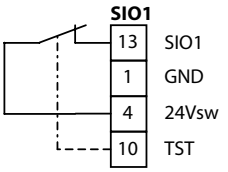

KI
1 GND
4 24Vsw
21 KI (KI1)

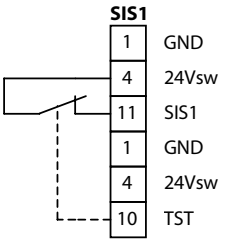

KA
1 GND
4 24Vsw
23 KA


KB
3 24VAKKU
20 KB


PS
2 24V
6 NA
7 LS
8 AUT
9 DO


PE3
1 GND
2 24V
22 PE3 (KI2)


SIO1
13 SIO1
1 GND
4 24Vsw
10 TST


SIS1
1 GND
4 24Vsw
11 SIS1
1 GND
4 24Vsw
10 TST

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 02
  - 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.

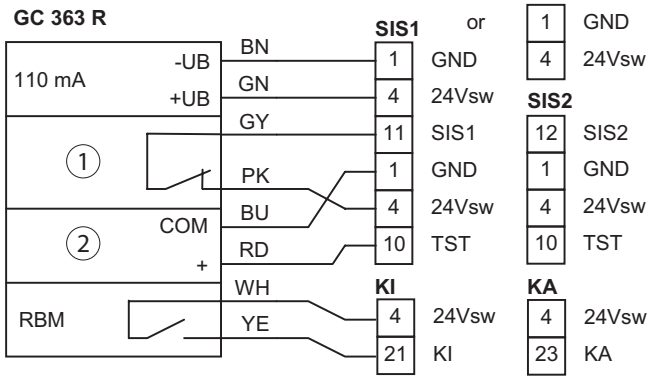
In order to safeguard the closing process in compliance with EN 16005 and DIN 18650, an active infrared detector must be installed on both the inside and outside. The detection area of the light curtain on the floor must cover the whole door width.

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.



1 Active infrared detector
2 Test

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

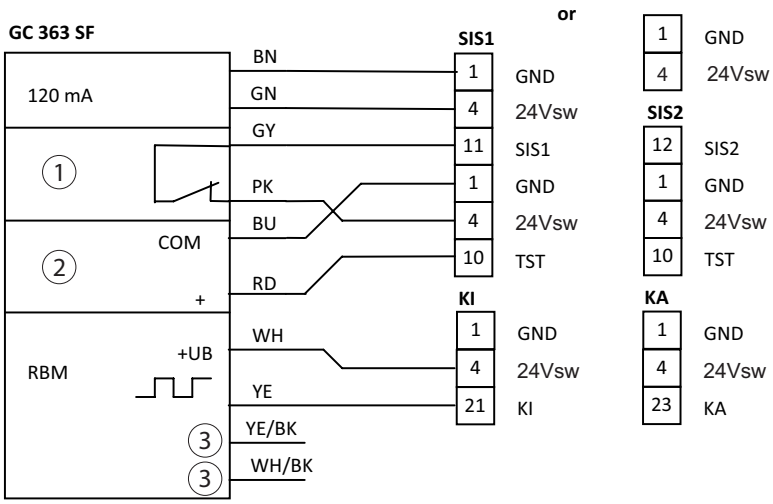
DIN 18650
EN 16005

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 = ÖW × 1.5 m, Speed greater than 10 cm/s.



1 Active infrared detector
2 Test
3 Not used

Parameter setting GC 363 SF

- Output configuration:

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

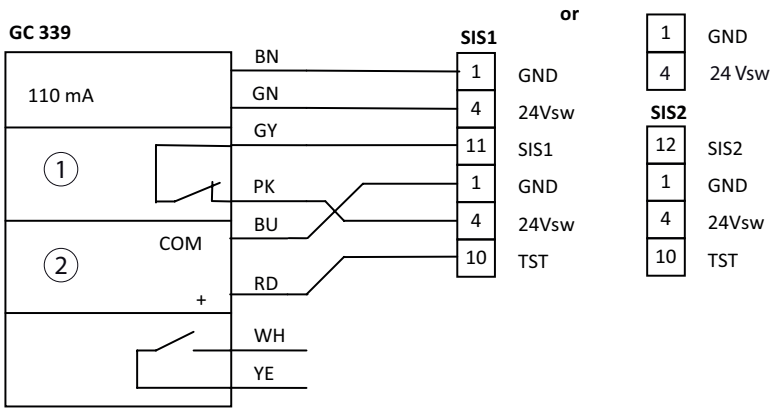
Parameter setting DCU1-NT for activations

- 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



1 Active infrared detector
2 Test

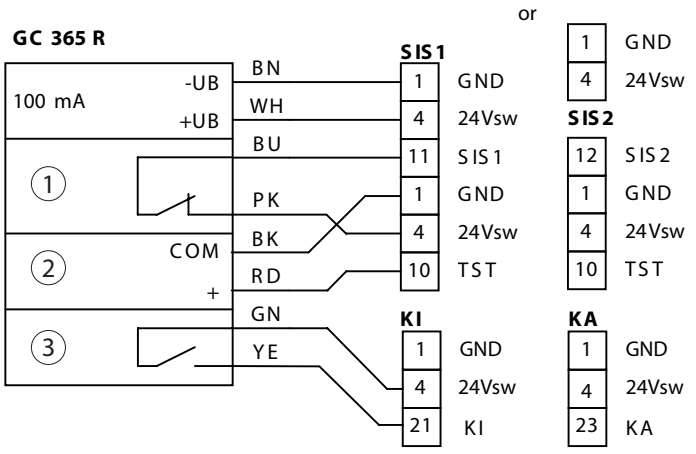
Parameter setting GC 339

- 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



1 Active infrared detector
2 Test
3 Radar movement detector

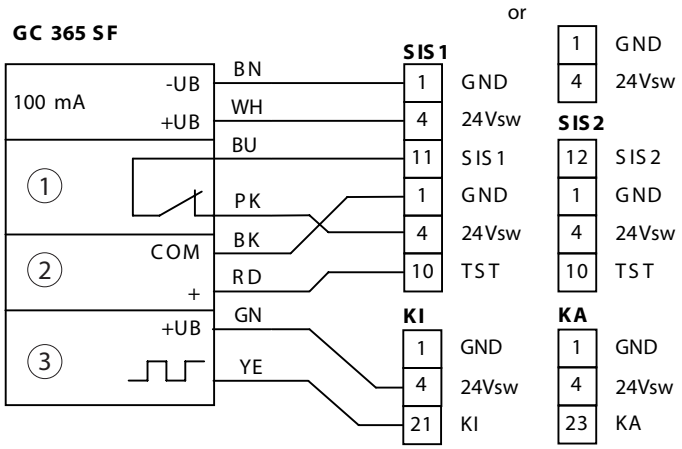
Parameter setting DCU1-NT for activations

▶ 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



1 Active infrared detector
2 Test
3 Radar movement detector

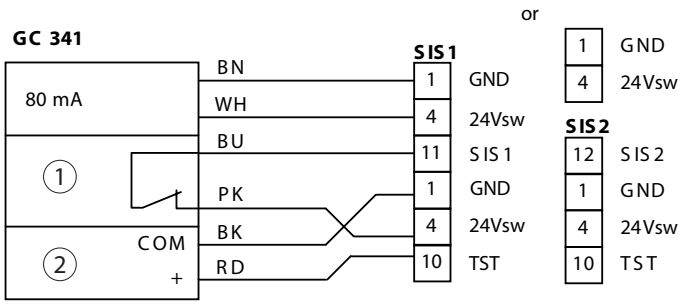
Parameter setting DCU1-NT

▶ 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



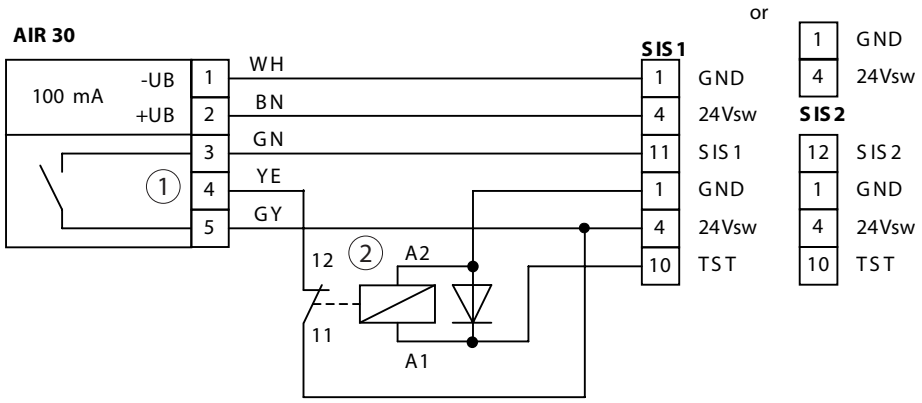
1 Active infrared detector
2 Test

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



1 Test
2 Relay with free swing diode

Illustration: with operating voltage switched off

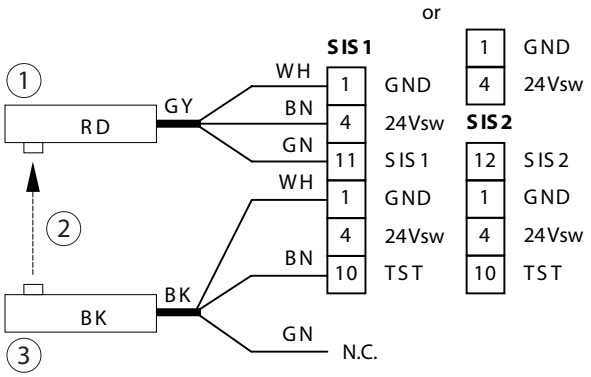
- Only use the AIR 30 as an additional sensor for monitoring closing.
- Set the light/dark selector switch to (D) (setting dark-switching)
- ▶ Adjust the scanning range to 0.2 m above the floor using the adjustment screw.

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



1 GZ 470 V receiver
2 Max. 5 m
3 GZ 470 V transmitter

- Installation 1.0 m above the floor.
- Current consumption GZ 470 V: 50 mA

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

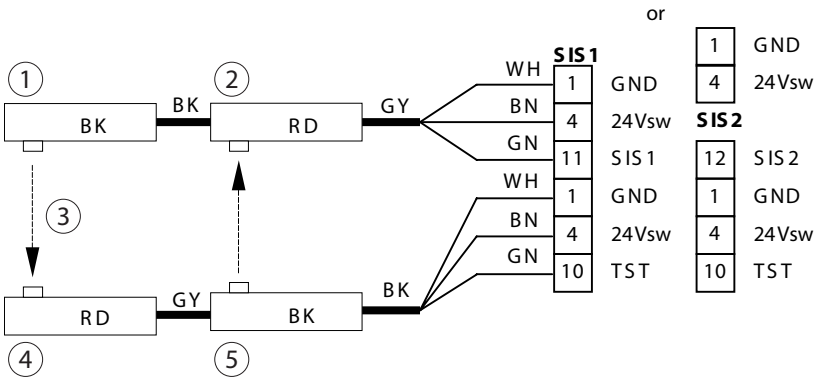
5.9 2-channel photoelectric barrier GZ 472 V

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

1 GZ 472 ES V transmitter
2 GZ 472 ES V receiver
3 Max. 5 m
4 GZ 472 SE V transmitter
5 GZ 472 SE V receiver



- 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).

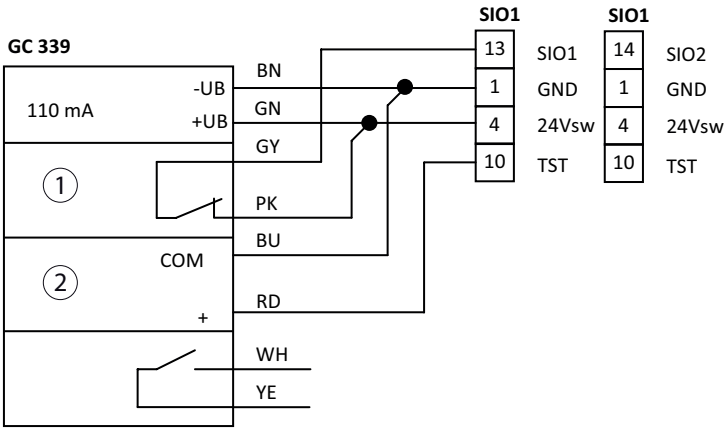
- ▶ Heed the installation instructions for the respective sensors.

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:

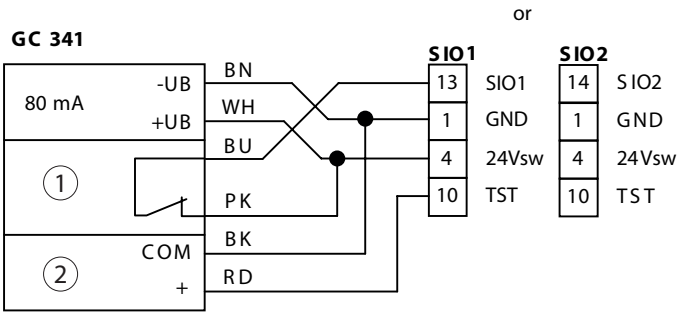
AIR: OUTPUT	to 1 (NO/**NC**)
AIR width	For installation in open position right: ▶ Set AIR width to the right-hand sub-panel. 
	For installation in open position left: ▶ Set AIR width to the left-hand sub-panel. 

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

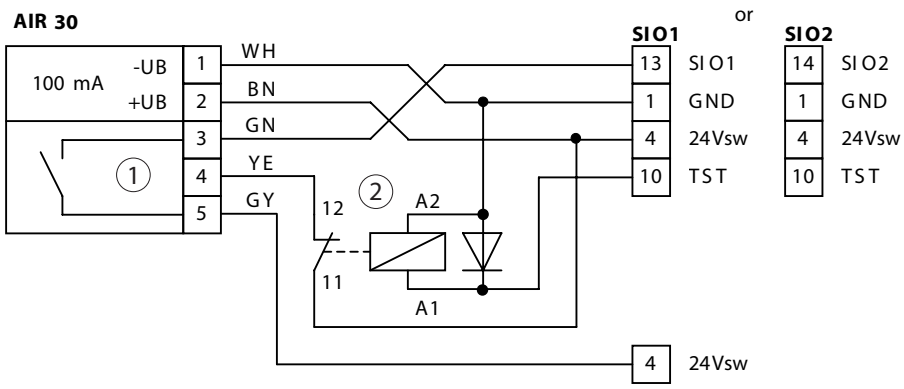
- For further information see chapter 5.6 GC 341(SIS).

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

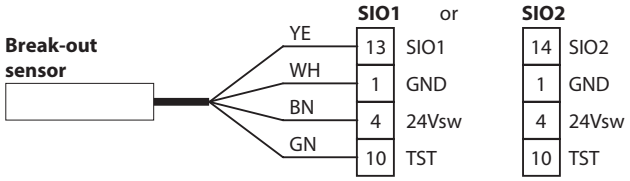
- ▶ Before commissioning, set the drive type in the Service menu “Door parameters” “Drive type” (Slimdrive SL BO, ECdrive BO or TSA 360NT BO).
- ▶ Note the contents of the “Guidelines on automatic sliding doors in escape and rescue routes (AutSchR)”:
  - The programme switch must be protected from unauthorised 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).



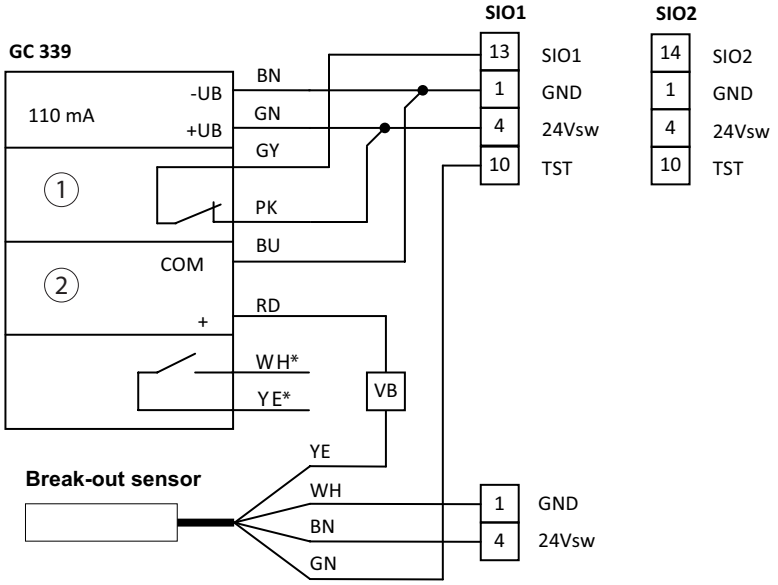
7.2 Break-out sensor and safety sensor “open”

- 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.

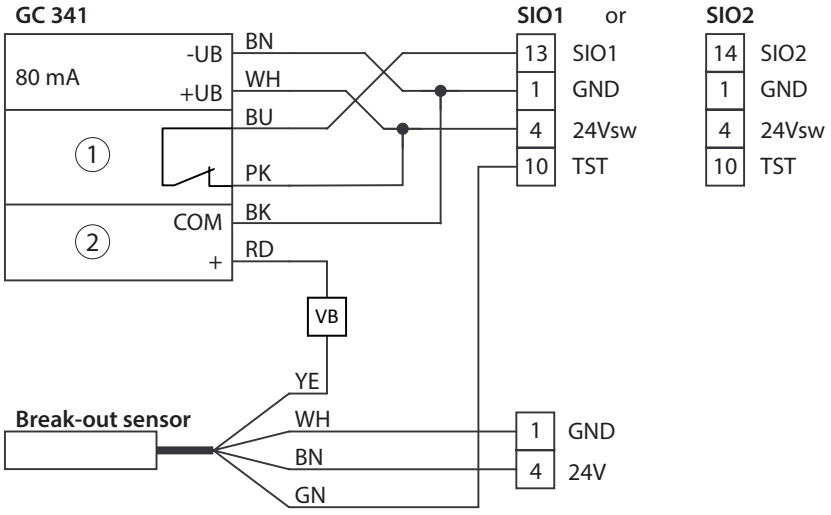


1 Active infrared detector
2 Test
* Insulate unused wires (WH, YE)
VB Connection of the wires and fixing of sensor cables (see chapter 8.3 Protecting the sensor cable against short-circuit)

7.2.2 Breakout sensor with active infrared detector GC341

DIN 18650
EN 16005

Installation height up to 3500 mm

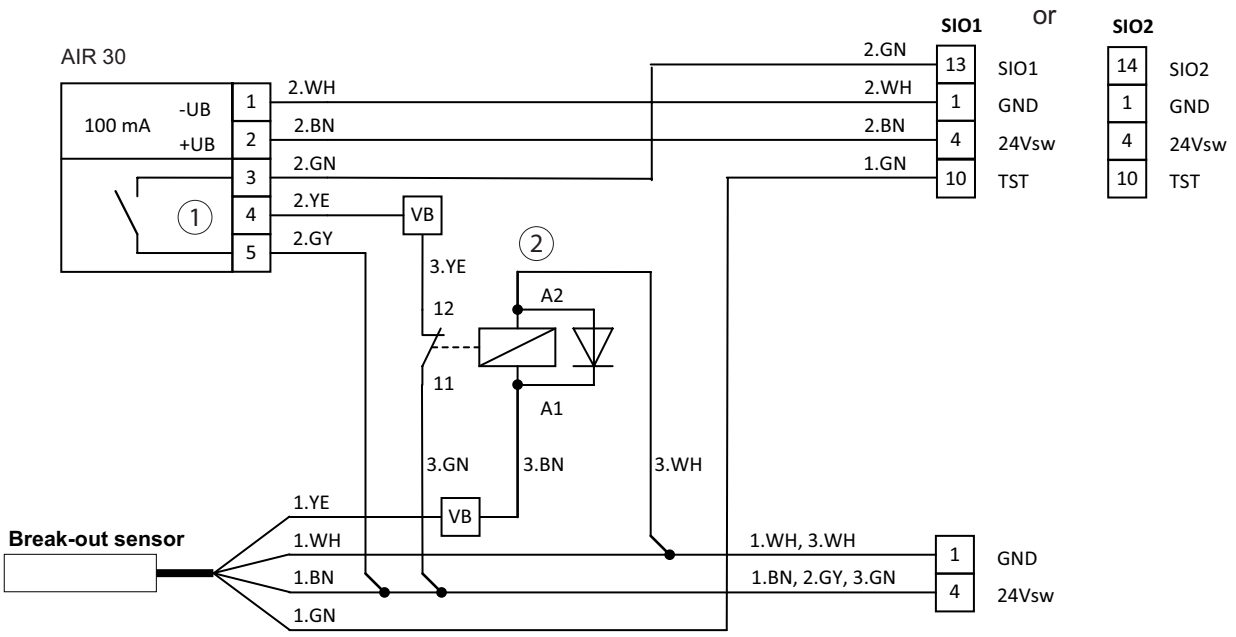


1 Active infrared detector
2 Test
VB Connection of the wires and fixing of sensor cables (see chapter 8.3 Protecting the sensor cable against short-circuit)

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

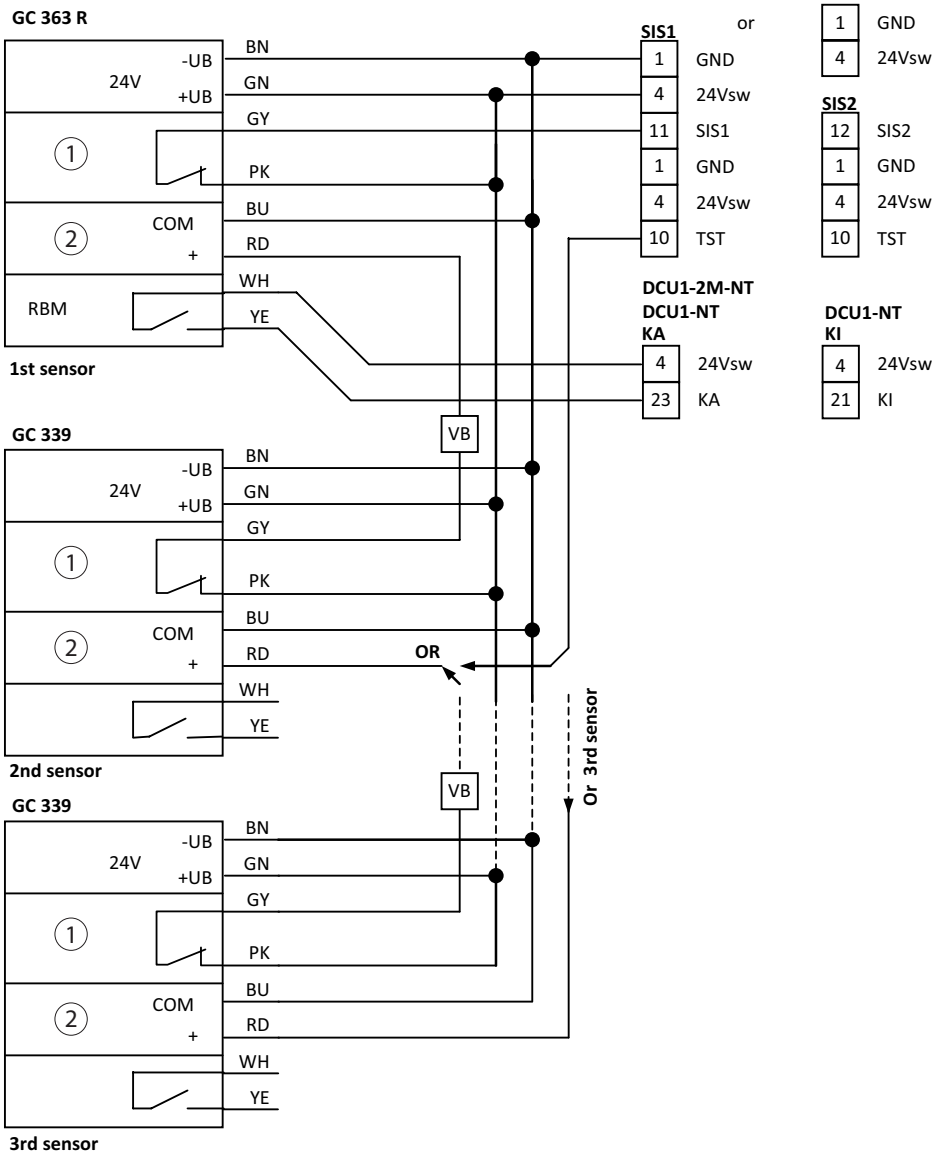
For further information see chapter 6.3 Active infrared sensor push button AIR 30

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)

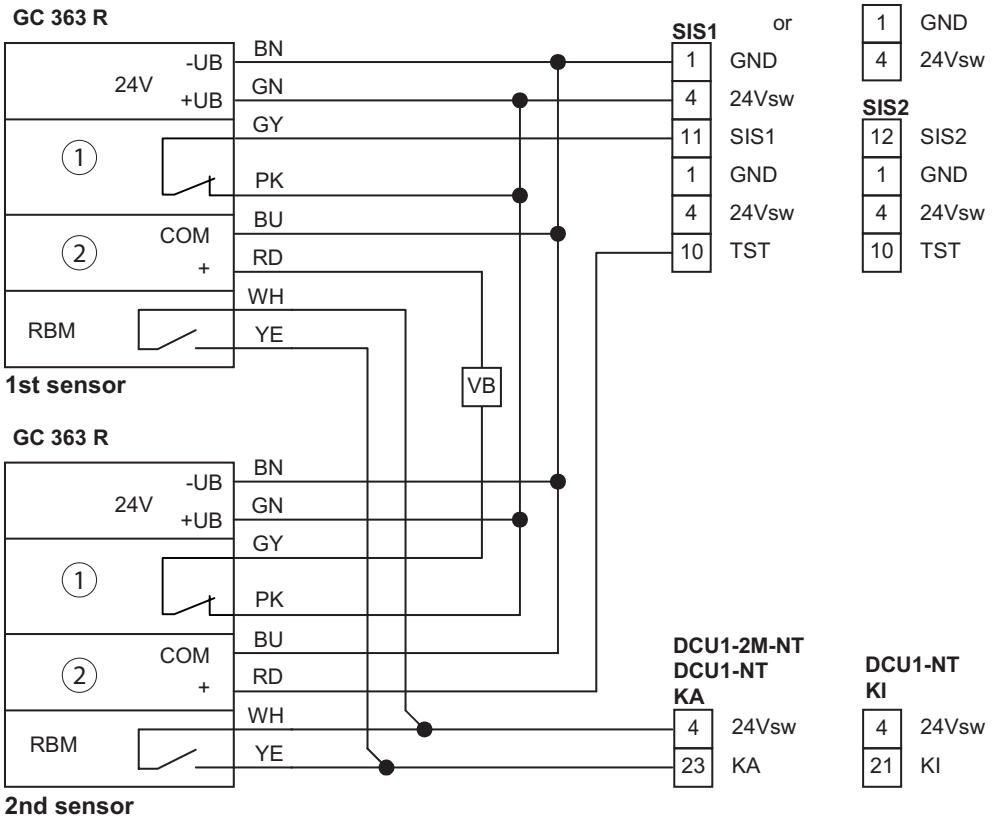
Parameter setting GC 363 R

- 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



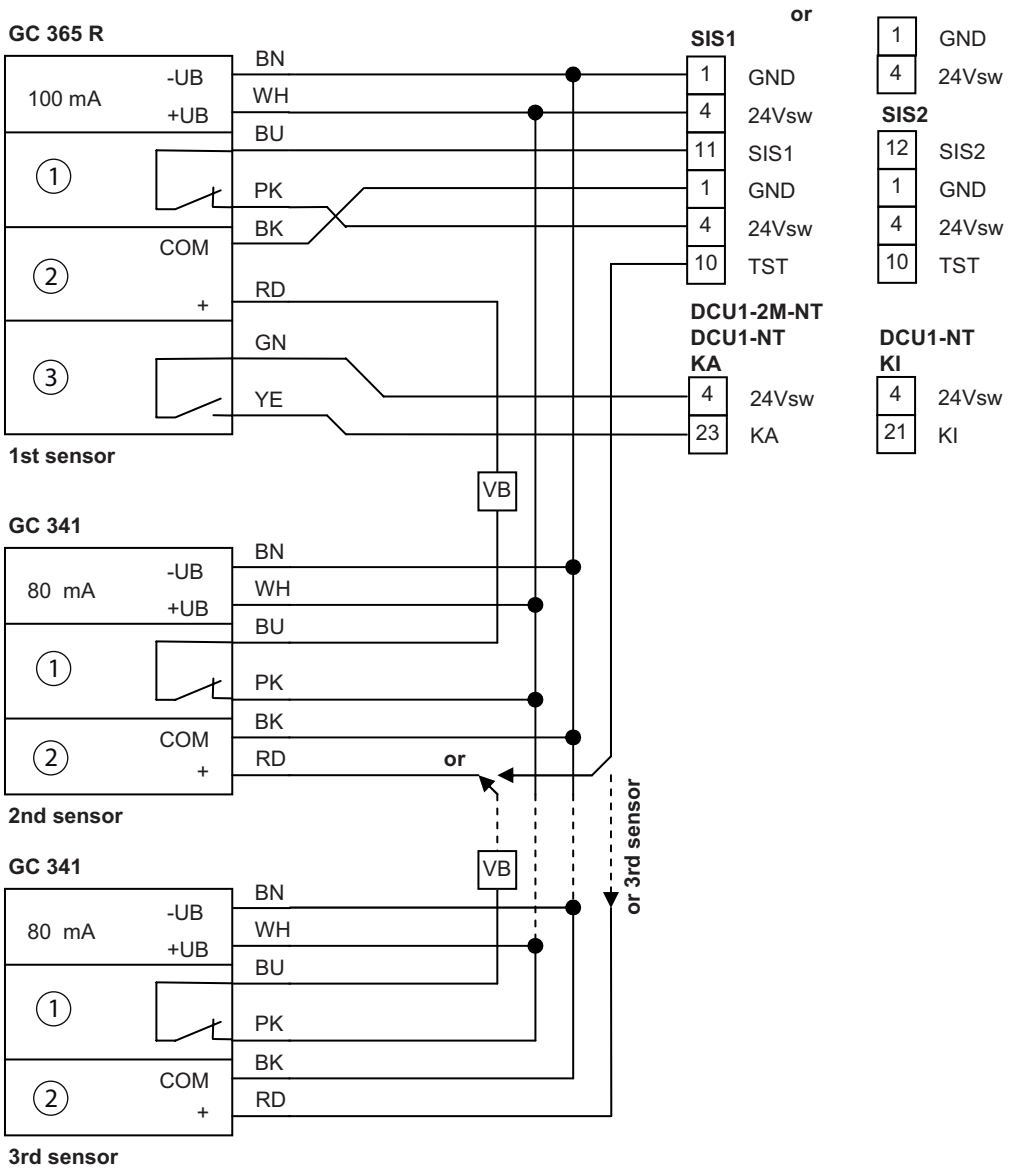
1 Active infrared detector
2 Test
VB Connection of the wires and fixing of sensor cables (see chapter 8.3 Protecting the sensor cable against short-circuit)

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



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)

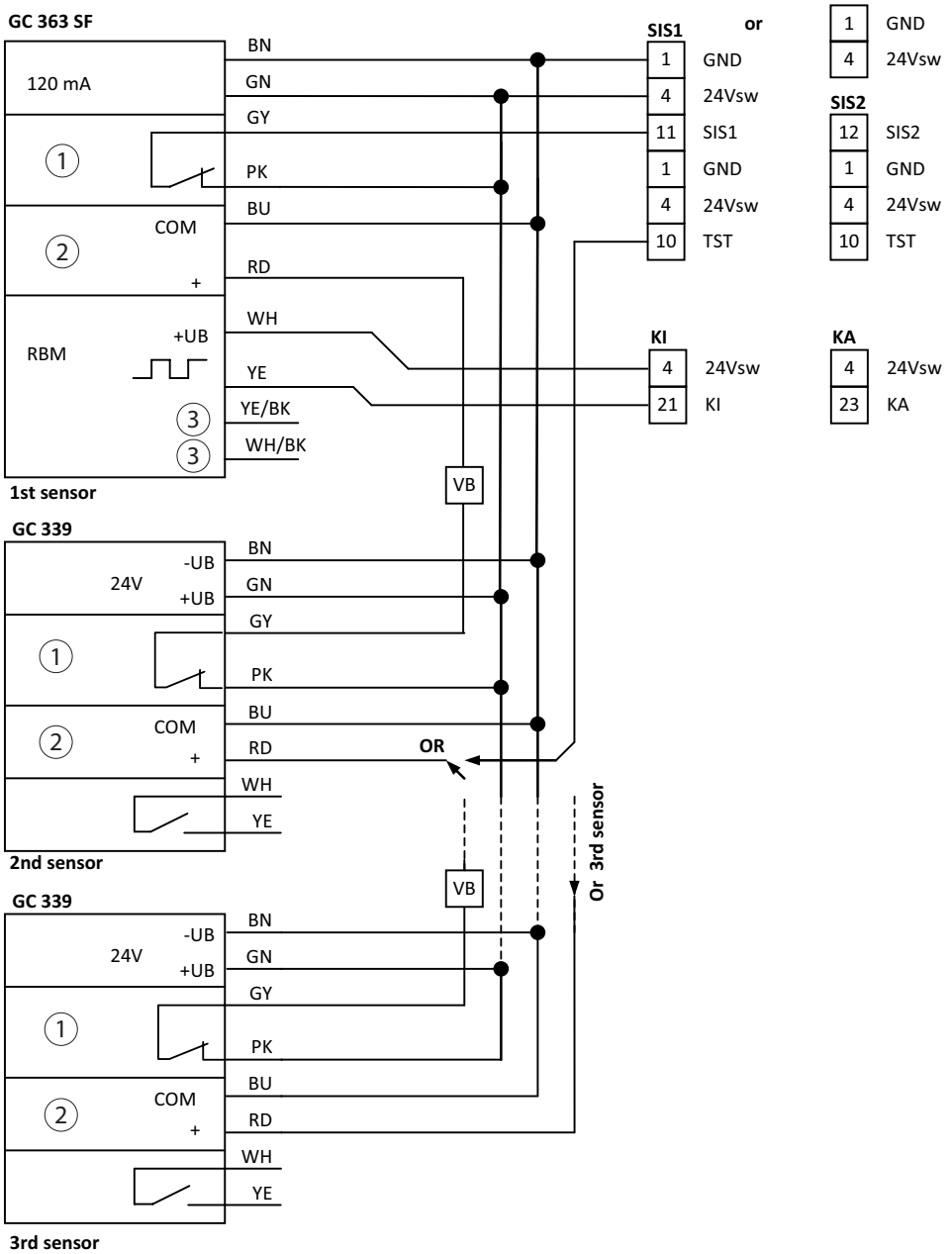
Parameter setting DCU1-NT

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

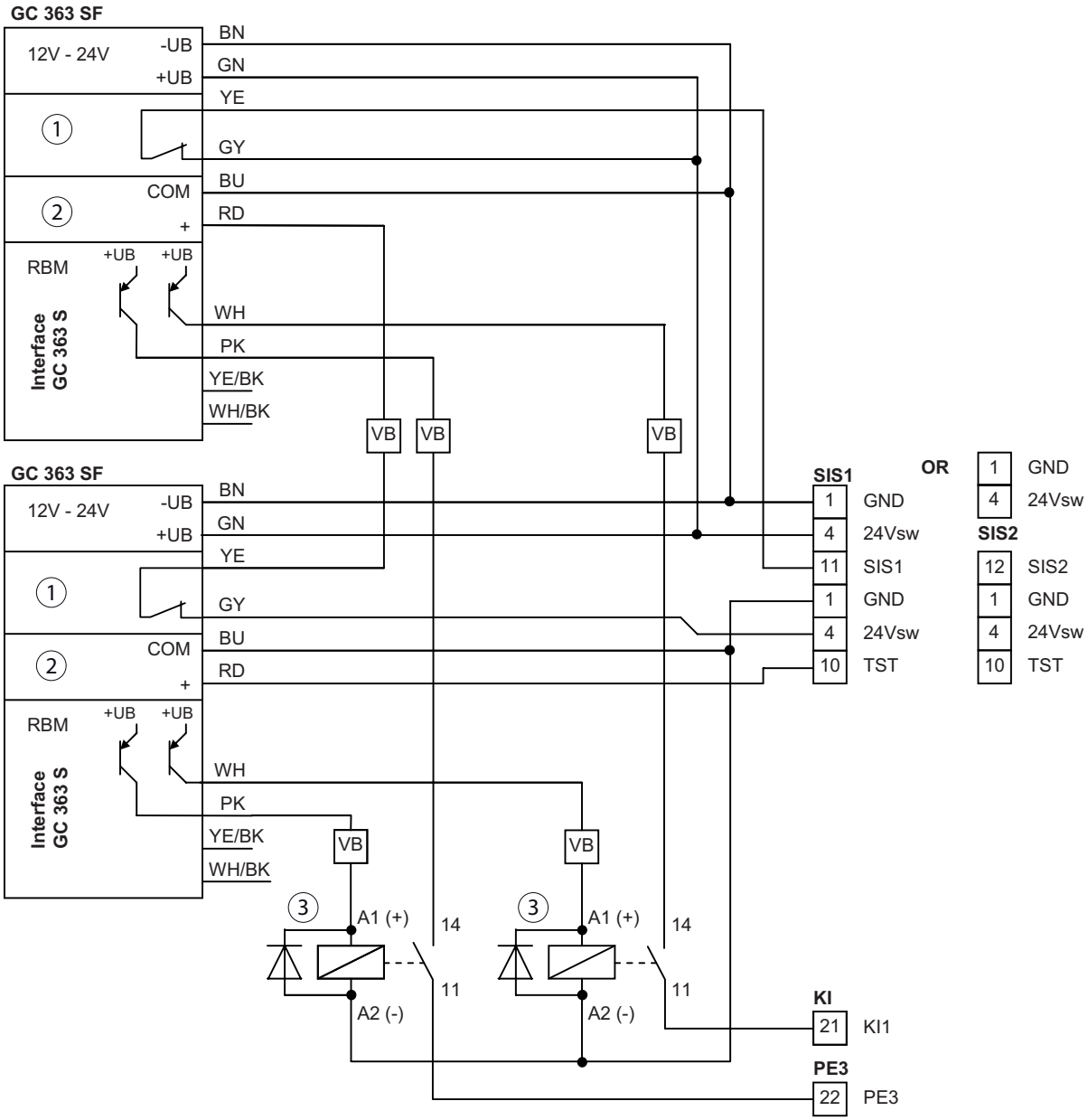
- Ci (contact sensor inside, contact type) or Co (contact sensor outside, contact type) to 04 (frequency).

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



1 Active infrared detector
2 Test
3 Relay with free swing diode
Illustration: with operating voltage switched off

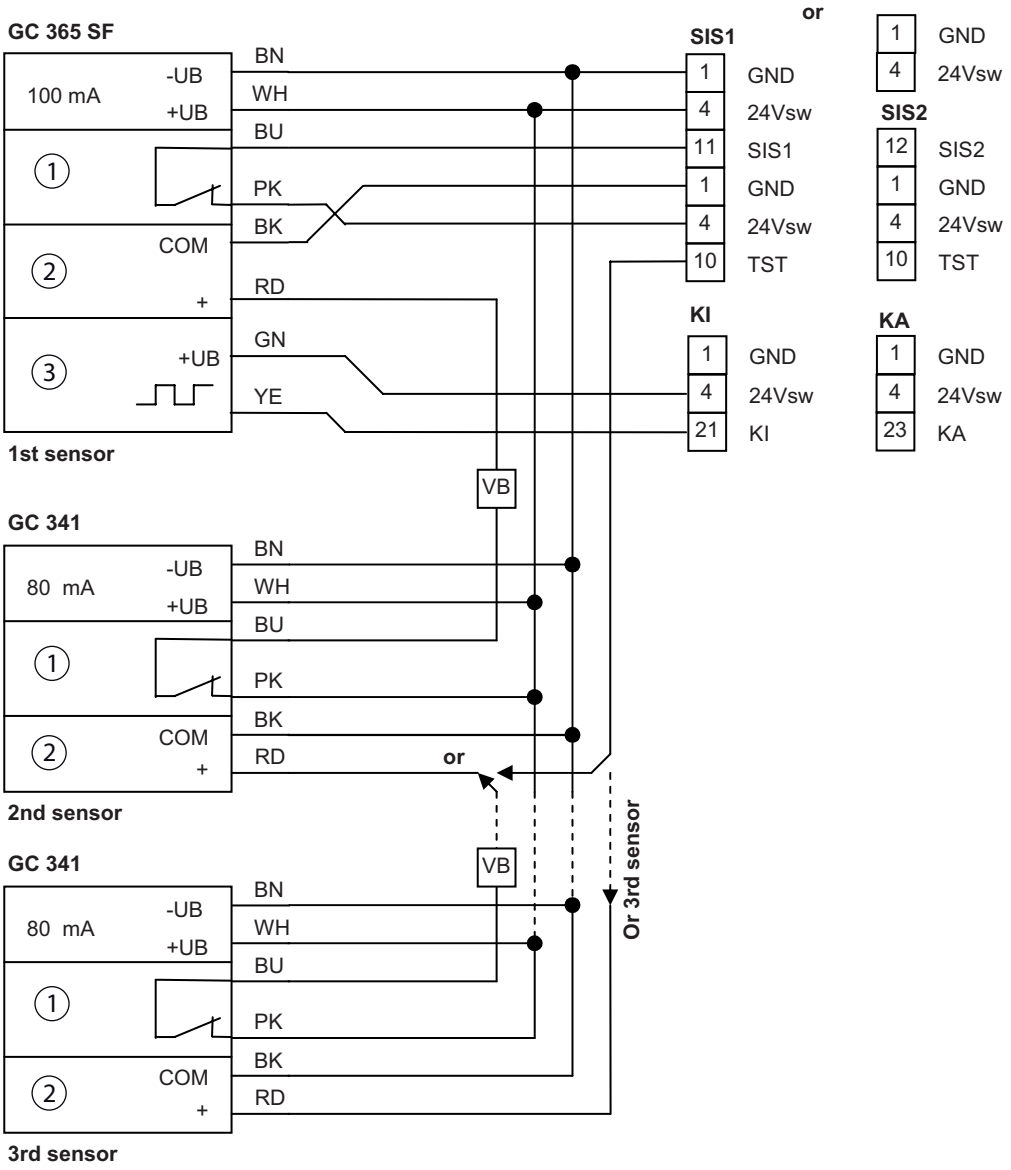
VB Connection of the wires and fixing of sensor cables (see chapter 8.3 Protecting the sensor cable against short-circuit)

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)

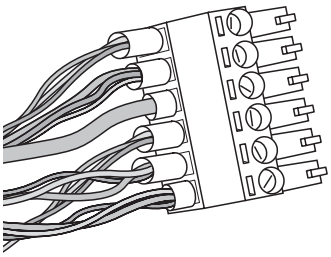
Parameter setting DCU1-NT

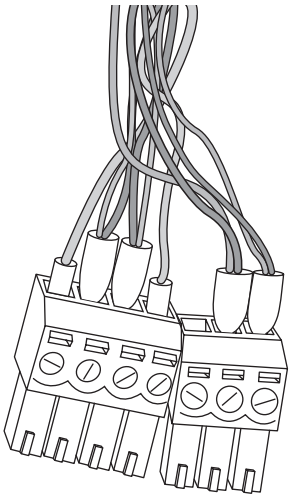
► Set Ci (contact sensor inside, contact type) or Co (contact sensor outside, contact type) to 04 (frequency).

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:

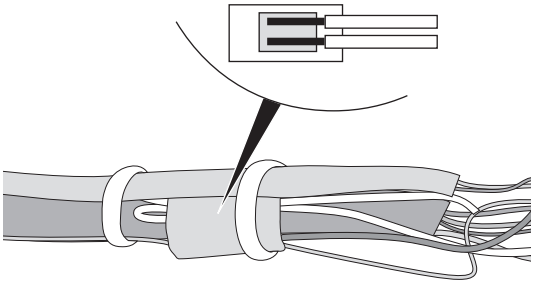
Combine several wires to be connected in one wire-end ferrule





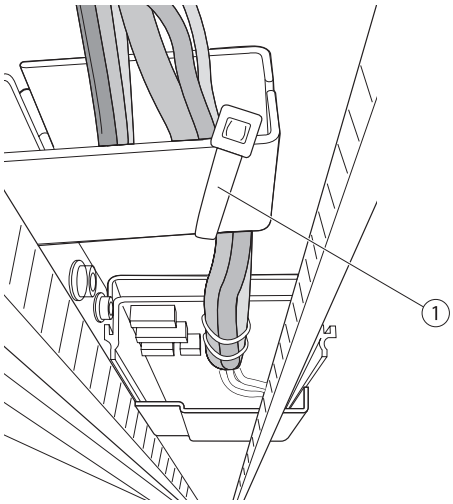
Connect VB wires using an insulated parallel connector
Parallel connectors: e.g. Bürklin, order no. 07F680

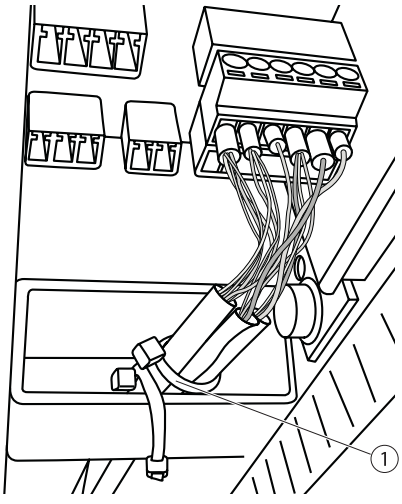
- Use shrink tubing to insulate wires until the start of the cable sheath. The shrink tubing must project 10 mm over the insulated parallel connector.
- Lay the insulated wires backwards over the cable sheaths.
- Insulate non-used wires and lay them backwards over the cable sheaths.
- Fix wires and cables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



Secure sensor cables against movement

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





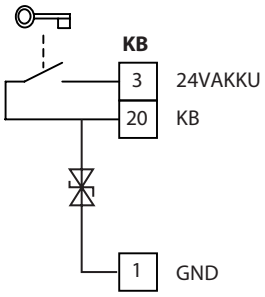
9 Mechanical contact

- The input KB is active in modes of operation Au, LS and nA.
- 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 Au 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)

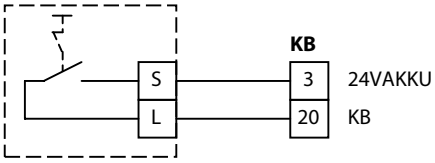
If the activation device at the KB input is installed away from the building (e.g. on a bollard), a protective diode BZW06-33B, mat. no. 165678, is required at the KB input of the control DCU1-NT, DCU1-2M-NT.



9.1 Emergency shut-off switch without illumination

- Mat. no. 120881

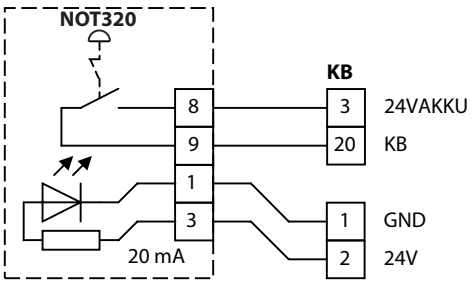
Mark “Open emergency push button” using the label enclosed.



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 Au and LS.

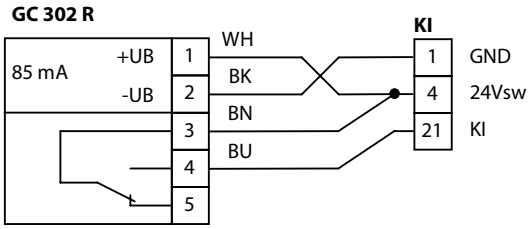
▶ Heed the installation instructions for the respective sensors.

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.

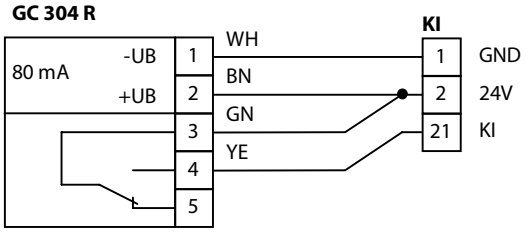


- Accessories:
  - Remote control, mat. no. 099575
  - Ceiling installation kit, mat. no. 115384
  - Rain cover, mat. no. 115339

▶ 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

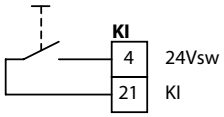
See chapter 5.1 Active infrared detector and radar movement detector GC 363 R.

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

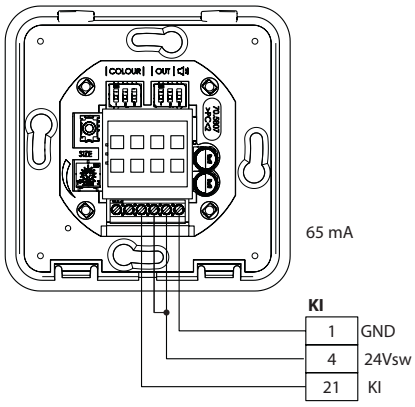


10.1.6 Non-contact activation sensor GC 307+

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

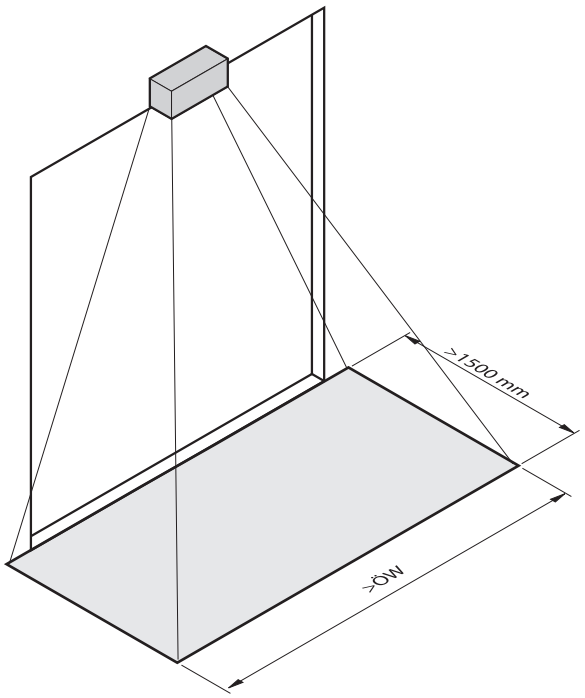
▶ Set the type of contact for KI and KA to "normally open contact".



- 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 = ÖW × 1.5 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

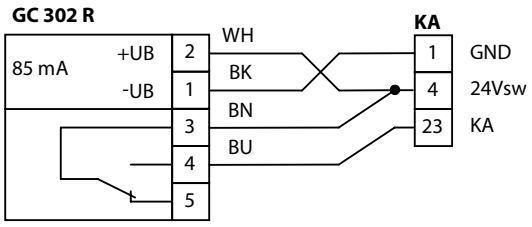
See chapter 5.5 Active infrared detector and radar movement detector GC 365 SF.

11 Contact sensor outside

- The KA input is only active in mode of operation Au.
- 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

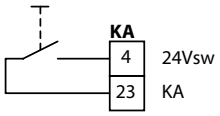
See chapter 5.1 Active infrared detector and radar movement detector GC 363 R.

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+.

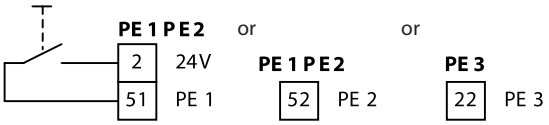
12 Configurable inputs

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	*10*	The first switch contact opens the door and the next closes the door.
Switch function with closing after OHZ	*11*	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 *E1*, *E2* or *E3* to *10* (switch function) or *11* (switch function with closing after hold-open time).
- With ST 220: Set PE1, PE2 or PE3 function to "switch function" or "switch function OHZ".

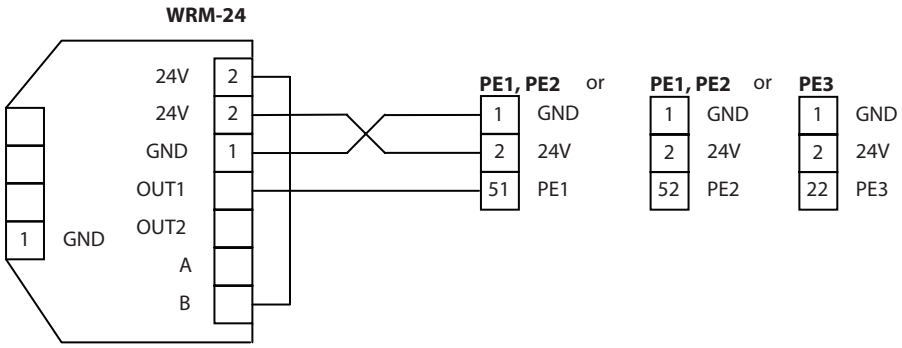


- During activation, the push button is closed (24 V is applied to inputs PE1, PE2 and PE3).

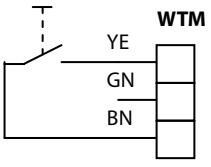
12.2 Wireless activation

- 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

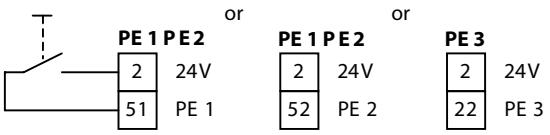


- The receiving module WRM-24 can be activated with the transmitting module WTM and the remote control WTH.
- WTM transmitting module, mat. no. 131212, for clipping into a plastic elbow switch.
- Follow the installation instructions for the wireless programme AUT.



12.3 Pharmacy opening

- ▶ Set function parameter for input used:
  - With DPS: Set E1, E2 or E3 to 06.
  - 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 nA 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!

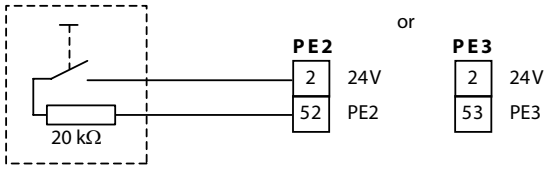
The safety sensors and the obstacle are not evaluated. The door closes with the set force.

- ▶ 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.

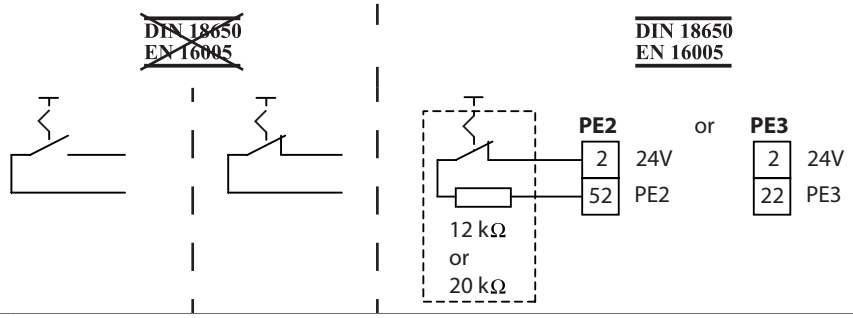
- When the emergency lock switch is activated, the contact is closed and approx. 5 V is applied to the input PE2 or PE3.
  - Contact sensors KA, KI and KB, safety sensors SIS as well as obstacle detection are hidden.
  - "Hold open" mode of operation is cancelled.
  - The door closes and locks.
  - The 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.



With DPS:	E2 or E3 to 24 (STOP NO)	E2 or E3 to 25 (STOP NC)	E2 or E3 to 12 (STOP 12k) to 23 (STOP 20k)
With ST 220:	STOP closer	STOP opener	STOP 12 k or STOP 20 k

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:

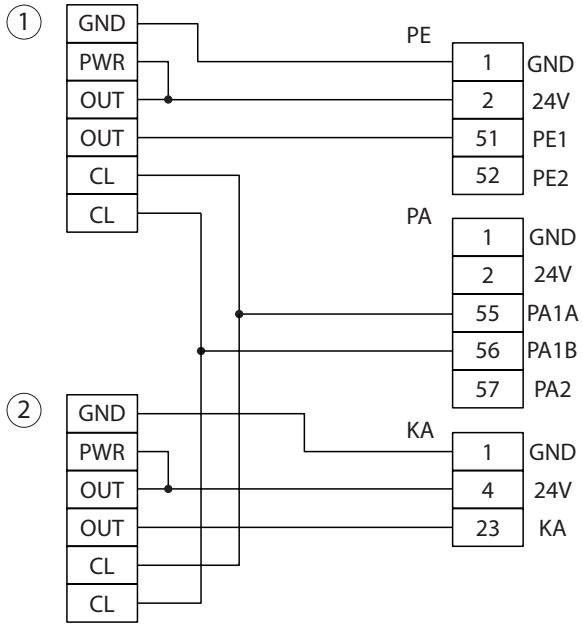
- DPS:
  - Set E1, E2 or E3 to 21 (WC control), depending on the input used.
  - Set A1 to 14 (LS).
  - Set A2 to 24 (fault WC timeout) if monitoring of permanent locking is required (signal horn to the lodge)
  - Set AC to 01 (open) or 03 (rechargeable battery operation max. 30 minutes / 30 cycles,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

- Colour “detection” → blue 

- Colour “occupied/external control signal” → red 

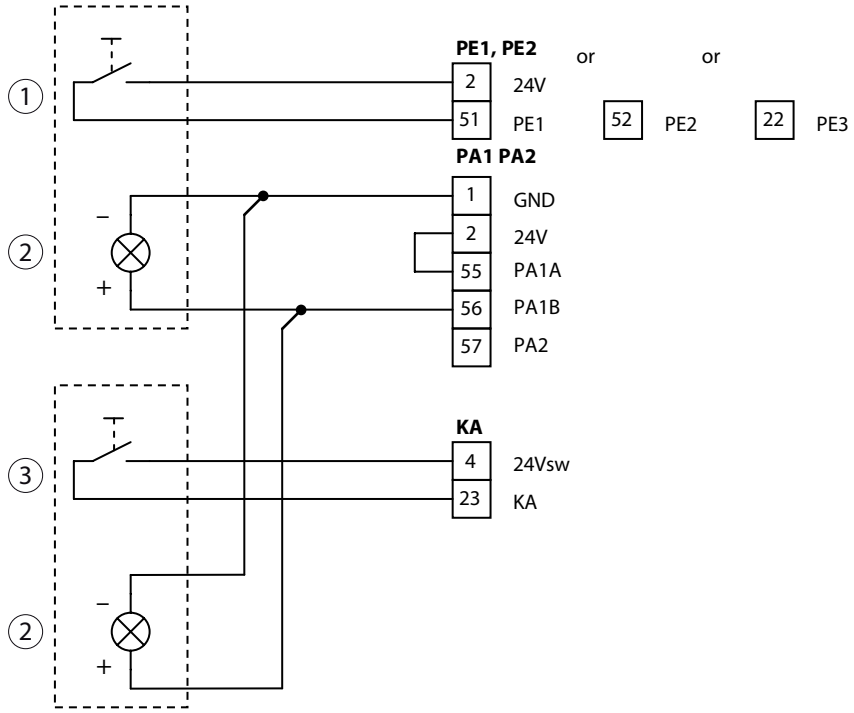
For further settings (e.g. acoustic feedback) see installation instructions GC 307+.

13.2 Elbow switches and indicator lamps

Accessories:

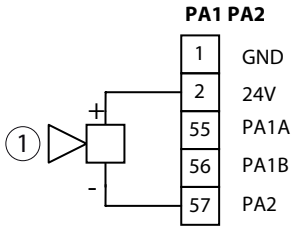
- Plastic elbow switch, white, mat. no. 114078
- Plastic elbow switch, stainless steel, mat. no. 114077
- Stainless steel elbow switch, mat. no. 119898
- LS 990 stainless steel elbow switch, surface-mounted, mat. no. 128582
- LS 990 stainless steel elbow switch, flush-mounted, mat. no. 128583
- SLE220 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)

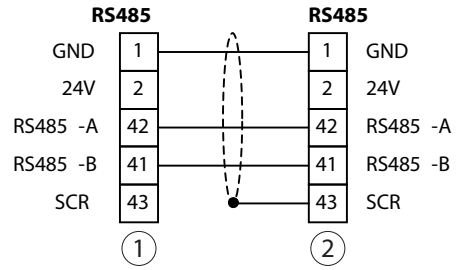
13.4 Emergency shut-off switch

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.



1 Control door 1
2 Control door 2

▶ 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

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.

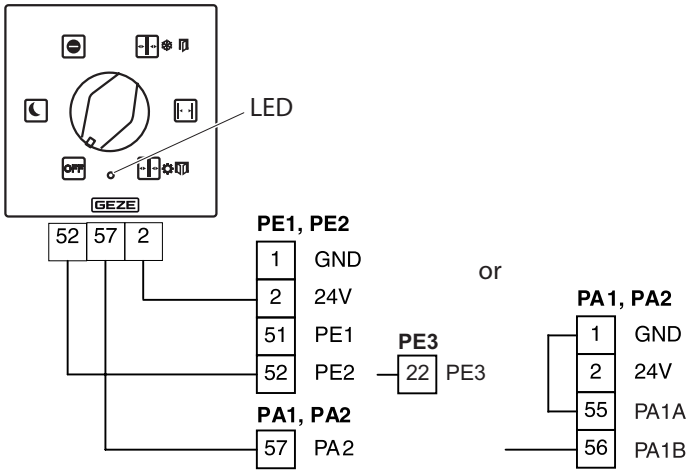
Mode of operation	Setting	Explanation
Automatic		Door opens and closes again. Inside and outside activation devices active.
▫ Full opening width		Door opens the complete opening width.
▫ Reduced opening width		Door opens only part of the possible opening width (can be set).
Exit only (one-way operation)		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)	OFF	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, nA, LS, Au Winter, do, Au 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 A1 or A2 to 04 for fault display MPS.
- With ST 220: Set "PA1" or "PA2 function" to "fault MPS".

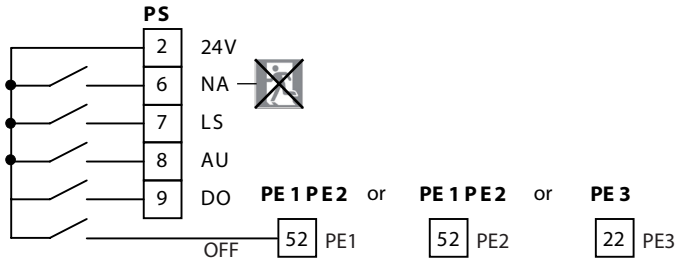
- If the mechanical programme switch is used, it is not possible to change the mode of operation using the keypad programme switch, display programme switch or the inputs nA, LS, Au and do.

15.2 Switching the mode of operation using push buttons or switches

In addition, it is possible to change between the modes of operation nA, Au, 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

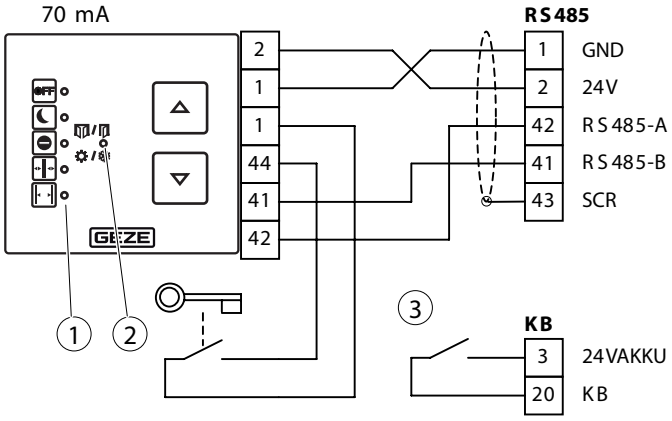
- With DPS: Set E1, E2 or E3 to 02.
- With ST 220: Set "PE1", "PE2" or "PE3 function" to "OFF".
- The control switches to the desired mode of operation if the level switches from GND to 24 V at the corresponding input.
- Operation using the keypad programme switch or display programme switch is only possible if there is no signal pending at the inputs nA, Au, LS and do.
- Locking the door (changing to mode of operation nA) 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, nA, LS, Au, do, 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

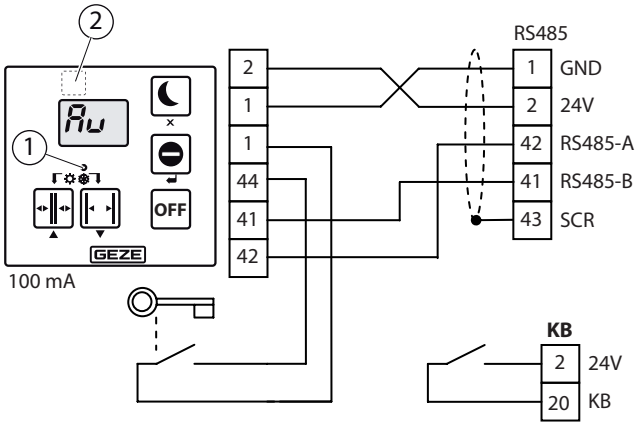
No TPS can be connected when PE2 function is "MPS" (only display possible).

- ▶ 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, nA, LS, Au, do, Summer/Winter opening width

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



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

- Changing the operating with the DPS is only possible if 24 V are not applied to nA, LS, Au, do 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.

- 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

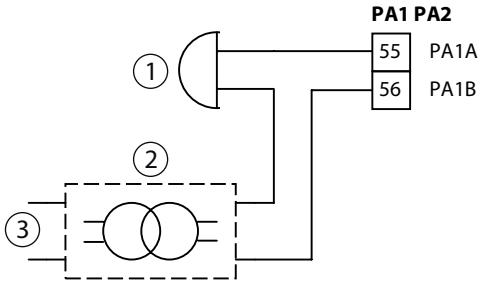
The control indicates various states via the two configurable outputs PA1 and PA2 (see Service menu). Parameters must be set for the outputs accordingly.

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 A1 or A2 to 01.
  - With ST 220: Set “PA1” or “PA2 function” to “gong”.

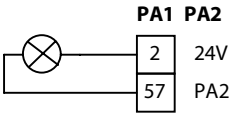
The contact closes as soon as SIS1 or SIS2 is actuated.



1 Gong
2 Bell transformer
3 Power supply circuit

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 A1 or A2 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.

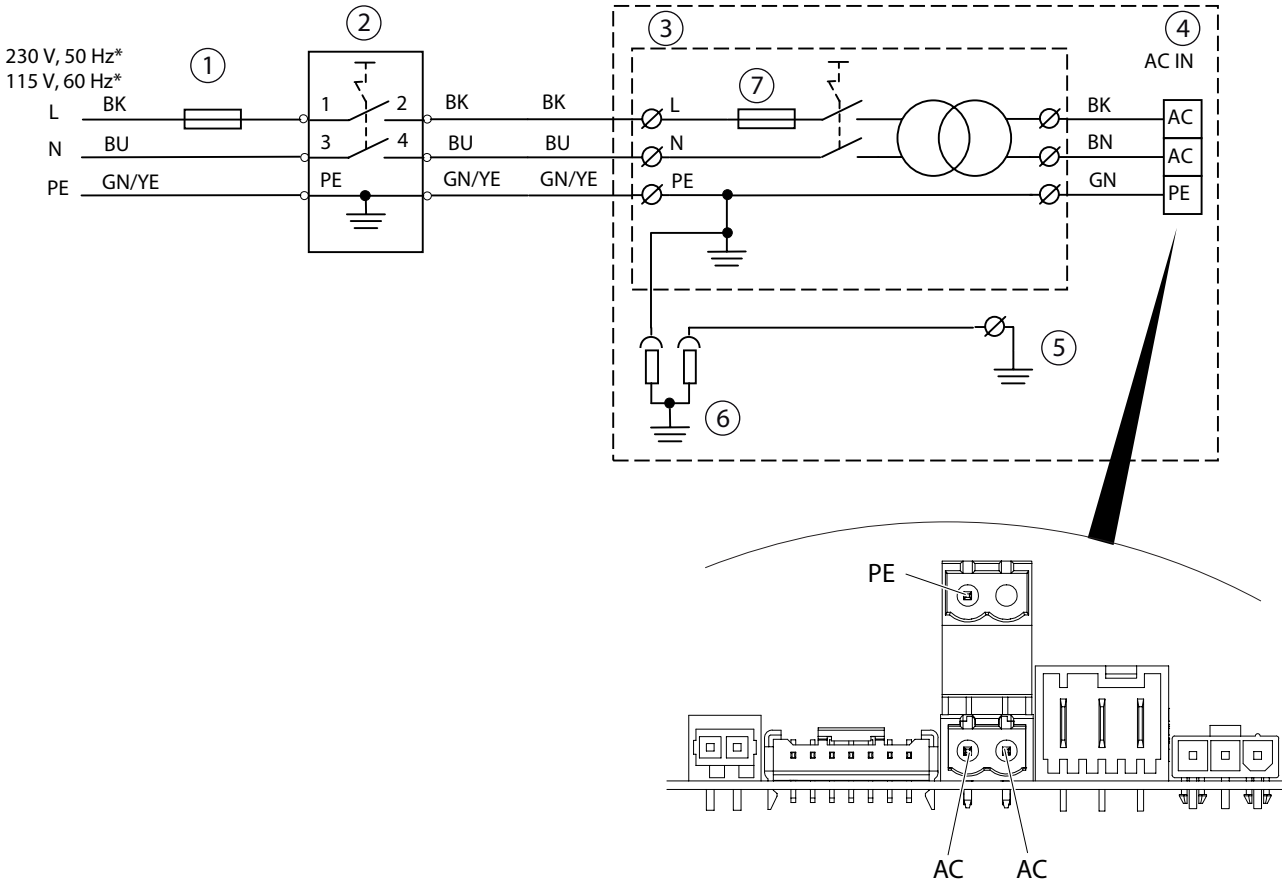
- ▶ A relay for galvanic isolation must be installed for forwarding the problem signal (e.g. to a building management system).
- ▶ Set parameters for the use of a fan for cooling the motor gear unit:
  - With DPS: Set A1 or A2 to 07.
  - With ST 220: Set “PA1” or “PA2 function” to “motor fan”.

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

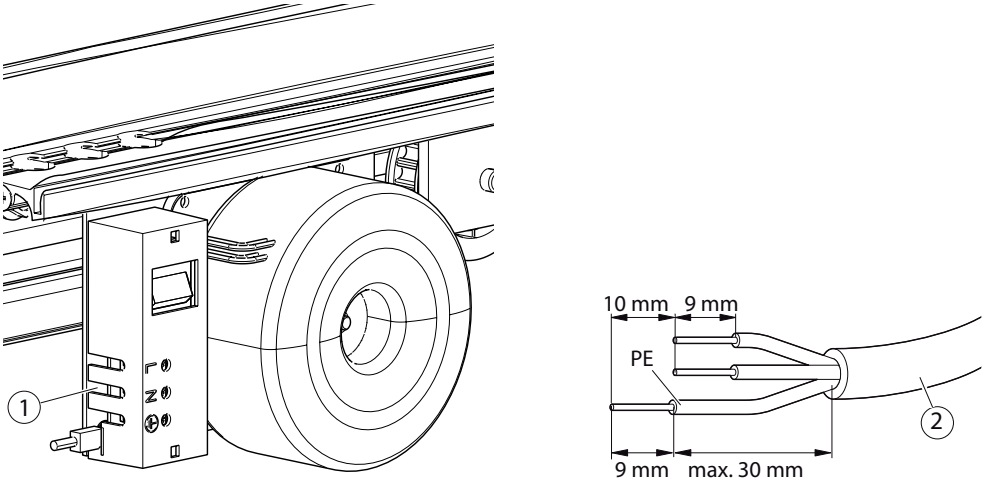
17 Mains connection

- 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 5×20 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



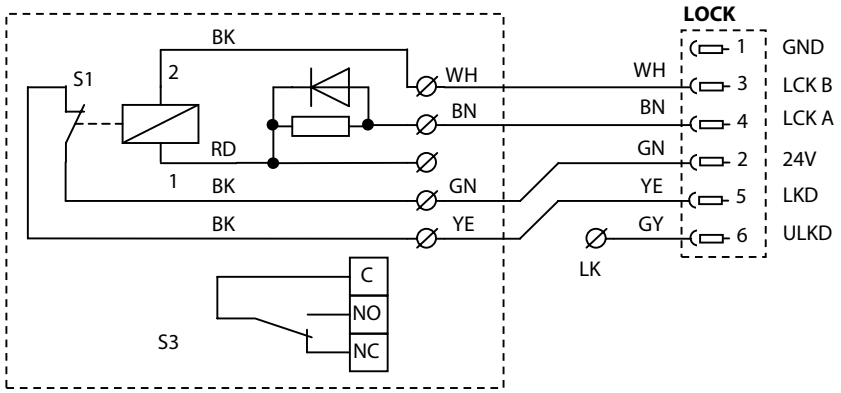
1 Mains connection terminal 230 V/115 V

- ▶ 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

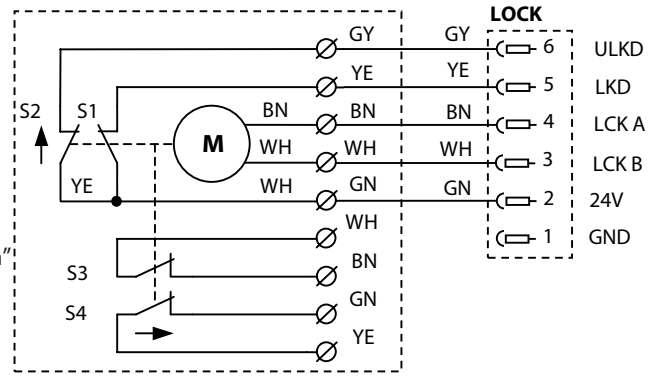


- ▫ Illustration in unlocked state.
- ▫ Switch S3, mat. no. 019080, can be installed optionally, switching voltage/current max. 24 V AC/DC / 0.5 A.
- ▫ In the locked state, switches S1 and S3 are actuated and the contact of switch S1 is opened.

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 rt 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
  rt to 05
- With ST 220: "PE2" to "manual unlocking"
  "electric locking mechanism" to "Lock A"

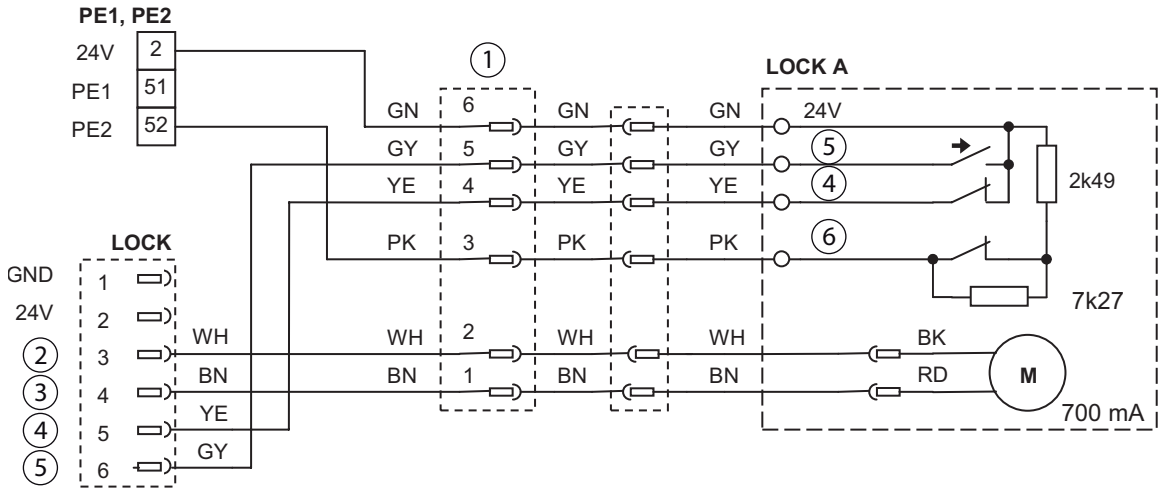
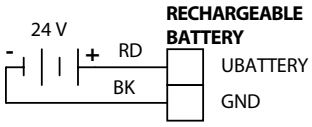


Illustration in "unlocked" state

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

19 Rechargeable battery

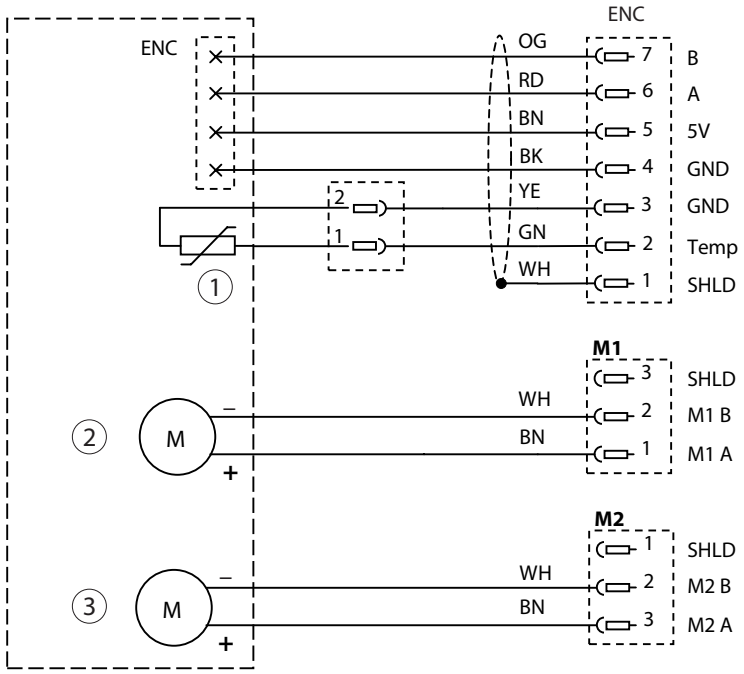
Rechargeable battery, mat. no. 106863
- Voltage in charged state: ≥26 V (with rechargeable battery unplugged).



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.



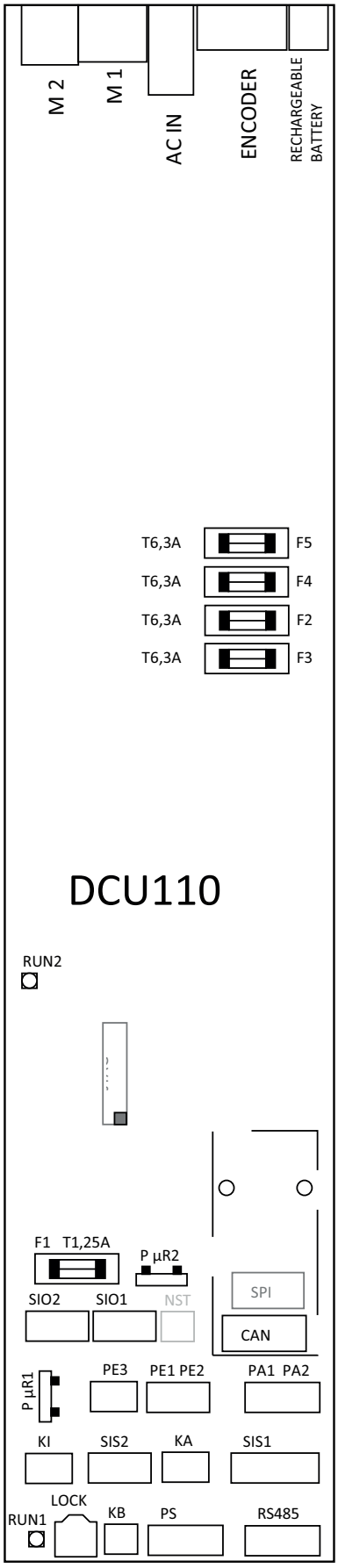
1 Temperature sensor
2 Motor gear unit 1
3 Motor gear unit 2

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; 5×20 mm)
  - F5 RECHARGEABLE BATTERY (T6.3 A; 5×20 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 CP, display programme switch indicates LE.
- ▶ Press the service key and Au 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.
  - A0 Rechargeable battery was not detected.
  - A1 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 *Au*, *LS do* (teaching cannot be done in *OFF* and *NA*).
- ▶ Set parameters for control, in particular:
  - ▫ *At* Drive type
  - ▫ *EF* Number of door leaves
  - ▫ *rt* Dead bolt type
  - ▫ *C1* 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
  - ▫ *L6* 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 *L6*.
    - ▶ 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 *Au*.
- ▶ Check the running behaviour of the door and adjust other parameters if necessary.

- ▶ Clear fault memory oE.
- ▶ 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 (↵) (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 (↵).

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 Fr.
- ▶ Mount drive cover and turn locking pin back in if necessary.
- ▶ With the ST 220, select the Au mode of operation; with the DPS, activate the motor gear unit Fo.
- ▶ 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 nA and unlocking by changing to mode of operation Au.

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 Er and oE.
- ▶ Clear fault memory oE.
- ▶ Reset service display (CS).

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”

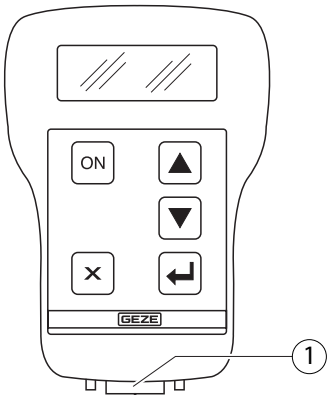
23 Service menu

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 ×. 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	
G E Z E **Service terminal** **2.1** **XXXXXYWWJJZZZZZZV**	
	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 **SW version uC2 4.1** **Automatic Summer** **opens**	
unknown	Drive type, pre-setting is unknown. If parameters have been set for the drive type, this is displayed here, e.g. “SL NT”.
DCU_2M-NT	Control type
Automatic summer	Current mode of operation
opens	Current status. If a fault is pending, the fault is shown rather than the status.
5.0	Software version µC1
4.1	Software version µC2 (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.



- 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 ×.
- 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 ECdrive T2	–
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**		Behaviour of the drive in case of a power failure in modes of operation LS, AU and DO.
	Open	**Open**	Open and switch off.
	Close		Close and switch off.
	30 min. open		30 min. max. 30 cycles with rechargeable battery, then open and switch off.
	30 min. close		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**	**Without**	
	Bistable	Bistable	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.
	Motor-driven	Motor-driven	Rod locking
	Fail-secure	Fail-secure	 only for motor gear unit DCU1-2M with fail-secure brake, mat. no. 117480
	Fail-safe		
	Lock A	Lock A	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	**00** 01…07 cm/s	Final speed in the open position
Latching action closed	**00** 01…07 cm/s	**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	Open	Reduced speed before open position
	Closed	Closed	Reduced speed before closing position
Acceleration	1 … **20** …40 ×10 cm/s²		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!
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** / Yes	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.
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 activation delay		Contact sensor inside	
KI contact type	Not used **Normally open contact** Normally closed contact Voltage Frequency	Normally closed contact Voltage **Frequency**	Voltage Frequency	Movement detector with voltage output Movement detector with frequency output
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 activation delay		Contact sensor outside	
KA contact type	Not used **Normally open contact** Normally closed contact Frequency	Not used **Normally open contact** Normally closed contact 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** Normally closed contact	**Not used**	–
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** Normally closed contact	Not used **Normally open 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** Normally closed contact	Not used **Normally open 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** Normally closed contact	Not used **Normally open contact** Normally closed contact	–

Configurable inputs						
Designation	Setting values				Explanation	
						
PE1 current status	Indication of state and function				OFF	Mode of operation “off”; the mode of operation cannot be changed as long as this is active. With the DCU1-2M-NT, the door opens before it switches off.
PE1 function	**Not used**		**Not used**		Summer	As long as this is active, the season cannot be changed.
	OFF	NO	OFF	NO	Winter	
	Summer	NO	Summer	NO	Sabotage	In NA active: Door does not open again until sabotage is inactive and mode of operation has been changed.
	Winter	NO	Winter	NO	Limited opening width	In NA: first flank opens 10–15 cm and locks, second closes and locks.
	Sabotage	NC	Sabotage	NC	MPS	A mode of operation change via TPS, DPS or the mode of operation inputs NA, LS, AU, DO and OFF is not possible.
	Pharmacy	NO	Pharmacy	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		
	Reset push button	NO	Reset push button	NO		
	Double push button	NO	Double push button	NO		
	WC control	NO				
PE2 current state	Indication of state and function				Emergency lock	The door closes if this is active. Activation and safety sensors are inactive.
PE2 function	**Not used**		**Not used**		P-KI activation	Only active in mode of operation LS and AU (like KI).
	MPS		MPS		P-KA activation	Only active in mode of operation AU (like KA).
	OFF	NO	OFF	NO	Push button	First edge opens the door, and next edge closes it.
	Summer	NO	Summer	NO	OHZ push button	First edge opens the door, and next edge closes it. If the hold-open time for mechanical contact expires while the door is open, the door closes automatically.
	Winter	NO	Winter	NO	KI2	If the contact type KI is configured as opener for DCU1-2M-NT, PE3 is the second contact sensor input and cannot be configured freely.
	Sabotage	NC	Sabotage	NC		
	Pharmacy	NO	Pharmacy	NO		
	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		
	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 1×: reduced opening width; Press 2×: full opening width
	MPS	MPS	
	OFF NO	OFF NO	
	Summer NO	Summer NO	Manual unlocking: The door leaves can be moved by hand.
	Winter NO	Winter NO	
	Sabotage NC	Sabotage NC	Emergency stop 12k: Function emergency stop button, normally closed contact with 12k terminating resistance
	Pharmacy NO	Pharmacy NO	
	Emergency lock 20k NO		
	P-KI activation NO	P-KI activation NO	Emergency stop 20k: Function emergency stop button, normally closed contact with 20k terminating resistance
	P-KA activation NO	P-KA activation NO	
	Push button NO	Push button NO	
	OHZ push button NO	OHZ push button NO	Stop NO: Function stop, normally closed contact without terminating resistance
	Emergency stop 12k NC		
	Reset push button NO	Reset push button NO	Stop NC: Function stop, normally open contact without terminating resistor
	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: ▫ Collective problem signal ▫ Maintenance message
	Fault NO contact	Fault NO contact	
	Fault normally closed contact	Fault normally closed contact	Warn: Active if the door continues moving despite active safety device at reduced speed.
	Fault MPS	Fault MPS	
	Warn	Warn	Motor gear unit brake: CO48 pre-setting with drive SL CO48 and ECdrive CO48. 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 gear unit brake		
	Motor fan	Motor fan	Motor fan: Active if motor temperature is higher than 67°C
	Locked closed	Locked closed	
	Closed	Closed	Open: Active if leaf is in current open position
	Not closed	Not closed	
	Open	Open	Light control: Output is active following activation for the duration of activation + 1 s.
	Off	Off	
	Night mode	Night mode	
	Exit only	Exit only	
	Automatic	Automatic	
	Hold open	Hold open	
	Light control	Light control	
	Opens		
	Does not open		
	Maintenance due	Maintenance due	F-manual unlocking: Manual unlocking Lock A activated
	F-manual unlocking	F-manual unlocking	
	F-WC timeout		F-WC timeout: 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 STOP KB, KI, KA NA, LS, AU, DO PE1, PE2, PE3 Bolt 1, bolt 2	V
	PA1, PA2 Bolt TST	V
	Current Position Current Motor current Mains voltage Rechargeable battery voltage 24 V internal DCU100 temperature DCU101 temperature Motor gear unit DCU100 temperature Cycles Operating hours Tests	mm A on/off V V °C °C °C Hours
Current states	SI1, SI2, SI3, SI4 STOP KB, KI, KA NA, LS, AU, DO PE1, PE2, PE3 Bolt 1, bolt 2	The logical state of the signal is displayed (active, inactive, fault).
	PA1, PA2 Bolt TST ECO mode	
	IoT module (GN) Connection (BU) CCDMS (YE)	

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

Further settings

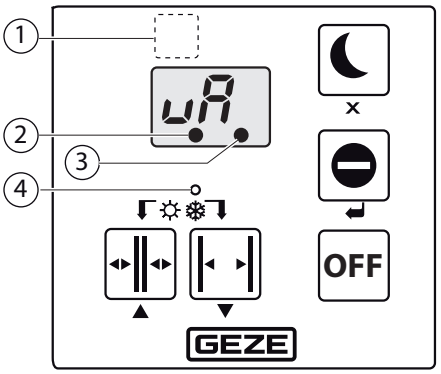
Designation	Setting values		Explanation
Start teaching	yes/no		
Factory setting	yes/no		
Default values	yes/no		(taught values are retained)
Clear maintenance	yes/no		Clear maintenance display
Change password	Password Service 1	Password old **0000** Password new	Password Service 1: for access to the 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	
	nA	Night mode	×	Cancel and return to first menu level
	LS	Exit only	↵	Confirm
	Au	Automatic	▲	Scroll up increase value
	do	Hold open	▼	Scroll down Reduce value
	OF	Off		(Only with mat. no. 152524/ 155810) drive switched without function for service purposes (drive is **not** without voltage)
▲ + ▼ simultaneously	Change Summer (full opening width) Winter (reduced opening width)		–	–
Service button (1) + ↵ simultaneously	Change mode of operation / service mode			



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, Au 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
uO	Opening speed	03 04…10 12…20 25…**50** 80 cm/s *)
uC	Closing speed	03 04…10 12…**20** 25…50 80 cm/s *)
SO	Latching action open	**00** 01…07 cm/s
SC	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
oS	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
bO	Acceleration	1…10 12…**20** 25…40 × 10 cm/s² *) (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
FO	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 2nd menu	–

⚠ **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.

*) 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	00	Not used
		02	**Normally closed contact**	**02**	**Normally closed contact**
F1	Safety 1 function (terminal SIS1)	**01**	**SIS rev**	**01**	**SIS rev**
		02	SIS and KI	02	SIS and KI
		03	SIS and KA	03	SIS and KA
		04	SIS slow	04	SIS slow
		05	SIO stop		
		06	SIO slow	06	SIO slow
		07	SIO break-out		
S2	Safety 2 contact type (terminal SIS2)	00	Not used	00	Not used
		02	**Normally closed contact**	**02**	**Normally closed contact**
F2	Safety 2 function (terminal SIS2)	**01**	**SIS rev**	**01**	**SIS rev**
		02	SIS and KI	02	SIS and KI
		03	SIS and KA	03	SIS and KA
		04	SIS slow	04	SIS slow
		05	SIO stop		
		06	SIO slow	06	SIO slow
		07	SIO break-out		
S3	Safety 3 contact type (terminal SIO1)	**00**	**Not used**	**00**	**Not used**
		02	Normally closed contact	02	Normally closed contact
F3	Safety 3 function (terminal SIO1)	01	SIS rev	01	SIS rev
		02	SIS and KI	02	SIS and KI
		03	SIS and KA	03	SIS and KA
		04	SIS slow	04	SIS slow
		05	**SIO stop**		
		06	SIO slow	**06**	**SIO slow**
		07	SIO break-out		
S4	Safety 4 contact type (terminal SIO2)	**00**	**Not used**	**00**	**Not used**
		02	Normally closed contact	02	Normally closed contact
F4	Safety 4 function (terminal SIO2)	01	SIS rev	01	SIS rev
		02	SIS and KI	02	SIS and KI
		03	SIS and KA	03	SIS and KA
		04	SIS slow	04	SIS slow
		05	**SIO stop**		
		06	SIO slow	**06**	**SIO slow**
		07	SIO break-out		
Cb	Mechanical contact, contact type	00	Not used	00	Not used
		01	**Normally open contact**	**01**	**Normally open contact**
C1	Contact sensor inside contact type	00	Not used		
		01	**Normally open contact**		
		02	Normally closed contact	02	Normally closed contact redundant
		03	Voltage	03	Voltage
		04	Frequency	**04**	**Frequency**
A1	Contact sensor inside activation delay	**00**	01 … 10 s	**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.
Co	Contact sensor outside contact type	00	Not used	00	Not used
		01	**Normally open contact**	**01**	**Normally open contact**
		02	Normally closed contact	02	Normally closed contact
		04	Frequency	04	Frequency
AA	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 OFF	NO	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 o5	NO	11	Switch function, close after o5	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 OFF	NO	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 o5	NO	11	Switch function, close after o5	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 OFF	NO	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 o5	NO	11	Switch function; close after o5	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			
					22	Contact sensor inside 2	NC
		23	Emergency stop 20k	NC			
		24	Stop NO	NO			
		25	Stop NC	NC			

Display	Explanation	Setting values	
			
A1	Configurable output 1	**00 Not used**	**00 Not used**
		01 Gong	01 Gong
		02 Fault normally opened contact	02 Fault normally opened contact
		03 Fault normally closed contact	03 Fault normally closed contact
		04 Fault for MPS	04 Fault for MPS
		05 Warning signal	05 Warning signal
		06 Motor gear unit brake	
		07 Motor fan	07 Motor fan
		08 Closed and locked	08 Closed and locked
		09 Closed	09 Closed
		10 Not closed	10 Not closed
		11 Open	11 Open
		12 OFF	12 OFF
		13 NA	13 NA
		14 LS	14 LS
		15 AU	15 AU
		16 DO	16 DO
		17 Light control	17 Light control
		18 Opens when activated	
		19 Does not open when activated	
		20 Maintenance due	20 Maintenance due
		23 Manual locking fault	23 Manual locking fault
		24 WC timeout fault	
A2	Programmable output 2	**00 Not used**	**00 Not used**
		01 Gong	01 Gong
		02 Fault normally opened contact	02 Fault normally opened contact
		03 Fault normally closed contact	03 Fault normally closed contact
		04 Fault for MPS	04 Fault for MPS
		05 Warning signal	05 Warning signal
		06 Motor gear unit brake	
		07 Motor fan	07 Motor fan
		08 Closed and locked	08 Closed and locked
		09 Closed	09 Closed
		10 Not closed	10 Not closed
		11 Open	11 Open
		12 OFF	12 OFF
		13 NA	13 NA
		14 LS	14 LS
		15 AU	15 AU
		16 DO	16 DO
		17 Light control	17 Light control
		18 Opens when activated	
		19 Does not open when activated	
		20 Maintenance due	20 Maintenance due
		23 Manual locking fault	23 Manual locking fault
		24 WC timeout fault	
nE	Switch to 3rd menu	–	–

3rd menu

Display	Explanation	Setting values			
					
Er	Currently queued errors	CE	Clear error memory		Clear error memory
oE	Old faults (the last 10 faults)	CE	Clear error memory		Clear error memory
d1	Diagnosis	r0 r1 A0 A1 xx yy S8	Without locking mechanism With locking mechanism Without rechargeable battery With rechargeable battery Leaf weight (x 100 kg) + leaf weight (x kg) ECO mode	r0 r1 A0 A1 xx yy S8	Without locking mechanism With locking mechanism Without rechargeable battery With rechargeable battery Leaf weight (x 100 kg) + leaf weight (x kg) ECO mode
SB	ECO mode	**00** 01	**Off** On	**00** 01	**Off** On
St	Control type	00 01 02 03	DCU1-NT DCU1-RD * DCU1-T30 * DCU1-NT-OP * * Special software	20 21 22 23	DCU1-2M_NT DCU1-2M-DUO * DCU1-2M-LL * DCU1-2M-RWS *
SA	Operating duration (6-digit display)	Co Ho Fo	Number of cycles / 100 Operating hours / 4 Number of self-tests	Co Ho Fo	Number of cycles / 100 Operating hours / 4 Number of self-tests
CS	Switch off service LED	cS	Displayed briefly for acknowledgement	cS	Displayed briefly for acknowledgement
CP	Restore factory setting	–		–	
Fr / Fo	Enable/activate motor gear unit	–		–	
SP	Language	00 01 02 04 05	German English Français Italiano Espanol	00 01 02 04 05	German English Français Italiano Espanol
LE	Start teaching	–		–	
EP	Software version	e.g. St 40 for DCU1-NT V4.0		e.g. St 40 for DCU1-2M-NT V4.0	
bt	Start BT pairing	bP b-	BT pairing started BT pairing not possible		

4th menu

Display	Explanation	Setting values	
			
At	Drive type	**00 Unknown**	**00 Unknown**
		01 Slimdrive SC	01 Slimdrive SC
		02 Slimdrive SF	02 Slimdrive SF
		03 Slimdrive SL	03 Slimdrive SL
		04 Slimdrive SL NT	04 Slimdrive SL NT
		05 Slimdrive SL BO	
		06 Slimdrive SL CO48	
		07 Slimdrive SLT	07 Slimdrive SLT
		08 Slimdrive SLV	08 Slimdrive SLV
		09 ECdrive	09 ECdrive
		10 ECdrive CO48	
		11 Powerdrive PL	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	17 ECdrive T2
EF	Number of door leaves	01 Close on one side	01 Close on one side
		02 Close centrally	**02 Close centrally**
AC	Power failure in LS, AU or DO	**00 No function**	
		01 Open	**01 Open**
		02 Close	
		03 Rechargeable battery operation 30 min., then open	
		04 Rechargeable battery operation 30 min., then close	
Eo	Open after fault	**00 Door remains closed**	
		01 Door opens after fault (see fault list for details)	**01 Door opens after fault**
rt	Bolt type	**00 No locking mechanism**	**00 No locking mechanism**
	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.	01 Bistable	01 Bistable
		02 Motor-driven	02 Motor-driven
		03 Fail-secure	03 Fail-secure  only for motor gear unit DCU1-2M with fail-secure brake, mat. no. 117480
		04 Fail-safe	
		05 Lock A (hook bolt lock)	05 Lock A (hook bolt lock)
SL	Interlocking door system, vestibule	**00 Master**	**00 Master**
		01 Slave interlocking door system	
		02 Slave vestibule	
CA	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 Er and oE 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
OFF						
–	–	–	–	–	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.