

Automatic sliding door drives

Door controllers

DCU1-NT-eco

EN Wiring diagram

216580
2026-08_01

GEZE

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Introduction

Symbols and illustrations

Warning notices

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

- ▶ Always read and follow these warnings.
- ▶ Follow all measures labelled 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 instructions 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 must do something. ▶ If there are several actions to be taken, keep to the given order.	
	EN 16005	Symbol in a table or relating to information on safety sensors that are standard-compliant.
	EN 16005	Symbol in a table or relating to information on safety sensors that are not standard-compliant.

Validity

Applies to devices with control systems:

- ▫ Hardware: DCU1-NT-ECO-ST Rev. B2 (215942)
- ▫ Software: DCU1-NT-ECO-ST from version 6.1.1 (215940) onwards

- ▫ Hardware: DCU1-NT-ECO-GD Rev. B3 (215943)
- ▫ Software: DCU1-NT-ECO-GD from version 6.1.1 (215941) onwards

Product liability

In accordance with the manufacturer’s liability for its products as defined in the German "Product Liability Act", compliance with the information contained in this brochure (product information and intended use, misuse, product performance, product maintenance, obligations to provide information and instructions) must be ensured. Failure to comply releases the manufacturer from its statutory liability.

Related documents and accessories



- ▶ Note chapter 1.3 “Reference documents”, p. 6..
- ▶ Note chapter 19.3 “Accessories, spare parts, wear parts”, p. 43..

1 Notes

1.1 Safety notes

- ▶ Secure the workplace against unauthorised entry.
- ▶ Before working on the electrical system, disconnect the power supply (mains and rechargeable battery) and check that there is no voltage. 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.
- ▫ Only specialists who are authorised by GEZE are permitted to carry out installation, commissioning and maintenance.
- ▫ Danger of injury when working at heights.
- ▫ 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 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 as well.
- ▫ 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.
- ▶ Connection to the mains voltage must be carried out by a qualified electrician. Perform the mains connection and protective conductor test in accordance with VDE 0100 Part 600.
- ▶ Use an on-site automatic circuit-breaker as the line-side disconnecting device. Its dimensioning is matched to the type, cross-section, type of laying and ambient conditions of the on-site power supply circuit. The automatic cut-out must have at least 4 A and may have max. 16 A.
- ▶ In accordance with Machinery Directive 2006/42/EC, carry out the safety analysis before commissioning the door system and label the door system in accordance with the CE Labelling Directive 93/68/EEC.
- ▫ Observe the latest versions of guidelines, standards and country-specific regulations, in particular:
  - ▫ EN 16005 "Power operated pedestrian doorsets – Safety in use – Requirements and test methods"
  - ▫ 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.

1.2 Installation information

- ▫ The drive is designed exclusively for use in dry rooms.
- ▶ Only use the cables specified in the wiring schematic. Connect the shields according to the wiring diagram.
- ▶ Always use insulated wire-end ferrules for wire cores.
- ▶ Insulate unused cores.
- ▶ Secure loose, internal drive cables with cable ties.
- ▶ Observe the maximum permitted total power consumption required to supply the periphery.



Install/fit the product in such a way that it can be easily accessed for any repairs and/or maintenance with relatively little effort and that any removal costs are not disproportionate to the value of the product.

1.3 Reference documents

These documents are subject to change. Use only the most recent version.

Mat. no.	Document	Product
134302	Automatic sliding door systems user manual	Door drive
187118	Errors and corrective measures DCU1-NT(-eco)/ DCU1-2M-NT drive electronics for automatic sliding doors	Door drive
186786	Automatic sliding door systems: safety analysis	Door drive
198724	Installation instructions GC 307+	Non-contact activation sensor
203845	Installation instructions GC 308 R	Radar movement detector
203882	Installation instructions GC 339+	Active infrared detector
203870	Installation instructions GC 363+ R	Active infrared light curtain and radar movement detector
160261	Installation instructions GC 365 R	Active infrared light curtain and radar movement detector
030450	Inspection book	Automatic
	Pre-installation instructions	Door drive
	Installation instructions	Door drive

1.4 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 detectors and motion detectors.
- Check the protective conductor connection to all touchable metal parts.

2 Abbreviations

Core colours

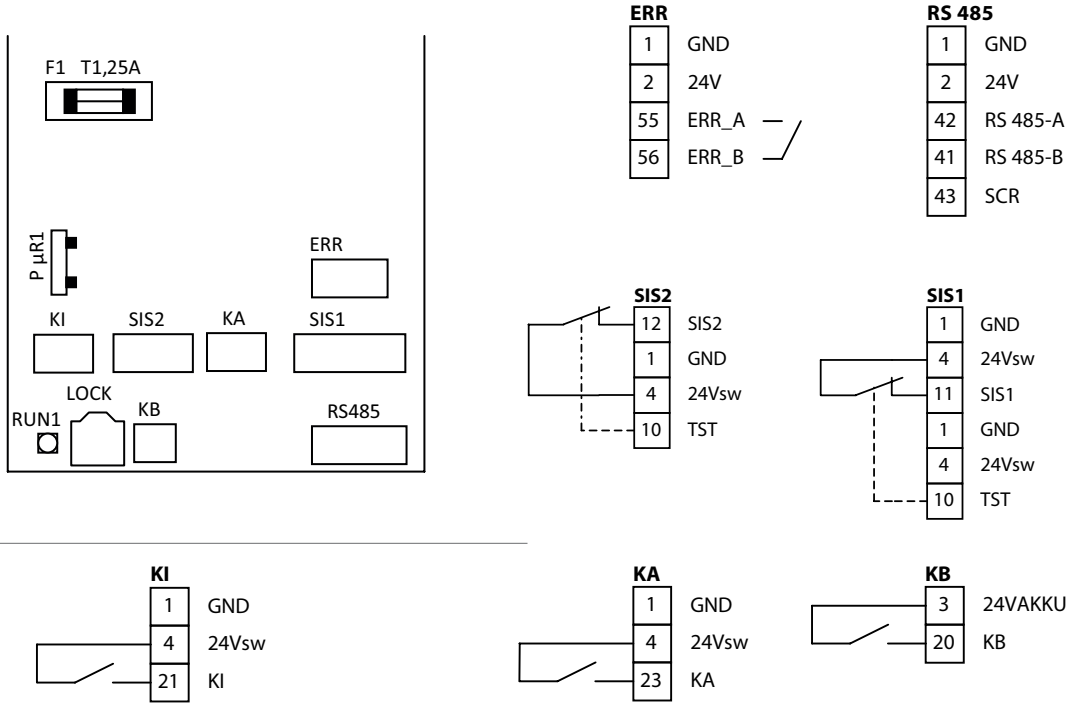
BN	brown	GN	green	OG	orange	TQ	turquoise
BK	black	GY	grey	PK	pink	VT	violet
BU	blue	YE	yellow	RD	red	WH	white

Connections, terminals and plugs

AIR	Active infrared detector
AU	Automatic
DO	Hold open
DPS	Display programme switch
ENC	Incremental encoder
ERR	Output fault message
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
M1B	Motor gear unit 1, B
NA	Night mode
N.C.	Not assigned
NC	Normally closed contact (normally closed)
NO	Normally opened contact (normally open)
OFF	Off
ÖW	Opening width
PROG	Programming interface
RBM	Radar movement detector
RUN	Status display
RS485	Communication signal to DPS, ST 220
SCR	Screen
SIS	Safety sensor “close”
ST 220	Service terminal ST 220
TEMP	Temperature sensor
Test	Test input
TPS	Keypad programme switch
TST	Test signal for 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)

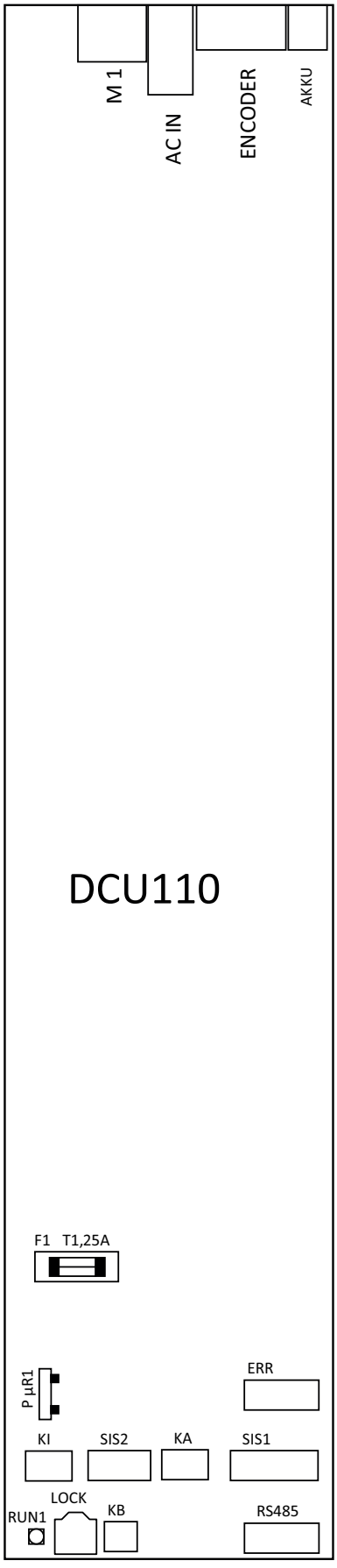
3 Terminal diagram and control unit

3.1 Terminal diagram



3.2 Control unit

- DCU1-NT-eco:
  - F1 24 V EXT (T1.25 A, 5x20 mm)
  - RUN1 RUN-LED, µController 1
  - P µR1 Programming connector, µController 1
  - M1 Motor gear unit 1
- RUN-LED
  - LED on: Everything OK
  - LED flashes slowly (0.25 Hz): Drive not taught
  - LED flashes quickly (2 Hz): Fault



4 Electrical data

Mains connection 230 V

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

ECdrive variants

▫ Capacity rating	140 W
▫ Primary fuse	2 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
▫ 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”

Further information on series connection of the safety sensors is provided in chapter “7.1 ‘Close’ safety sensor (standard doors)” on p. 16.

- Up to two “Close” safety sensors can be connected (terminals SIS1 and SIS2).
- If more than two “Close” safety sensors are required, these must be connected in series.
- If an “Open” safety sensor is required, an SIS must be connected in series.
- During detection, the output of the safety sensor "close" is open. GND is applied to the input.

Parameter setting DCU1-NT-eco for safety sensors

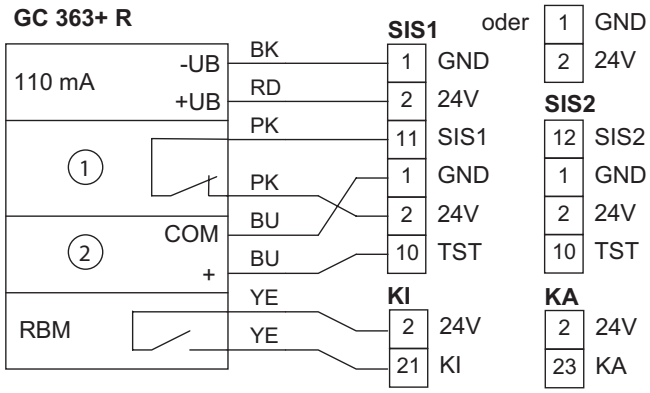
- ▶ Set the contact type for the terminal used:
  - With DPS: S1 or S2 to 02
  - With ST 220: “SI1” or “SI2 contact type” to “Normally closed contact”
- ▶ Set the function for detection (see chapter 18.1.4 Service menu ST 220 and chapter 18.2.2 Service menu DPS):
  - With DPS: F1 or F2,
  - With ST 220: “SI1” or “SI2 function”

In order to safeguard the closing process in compliance with EN 16005, 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 GC 363+ R active infrared light curtain and radar movement detector

EN 16005

- The GC 363+ R features an active infrared light curtain and a directional radar movement detector.



1 Active infrared detector
2 Test

GC 363+ R parameter settings

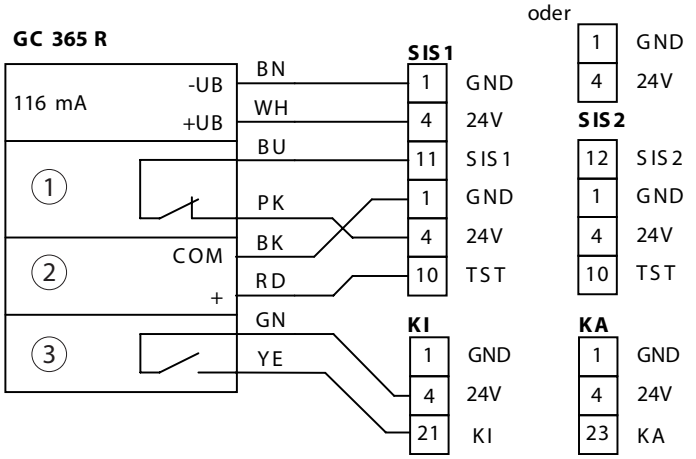
- Output configuration:
  RAD: OUTPUT, AIR: OUTPUT to 1 (NO/NC)

Parameter setting DCU1-NT for activations

- Set PARAMETER C1 (contact sensor inside, contact type) OR C0 (contact sensor outside, contact type) TO 01 (normally open contact).

5.2 Active infrared detector and radar movement detector GC 365 R

EN 16005



1 Active infrared detector
2 Test
3 Radar movement detector

Parameter setting GC 365 R

- Output configuration:

  RAD: OUTPUT DIP 12 set to OFF (NO)

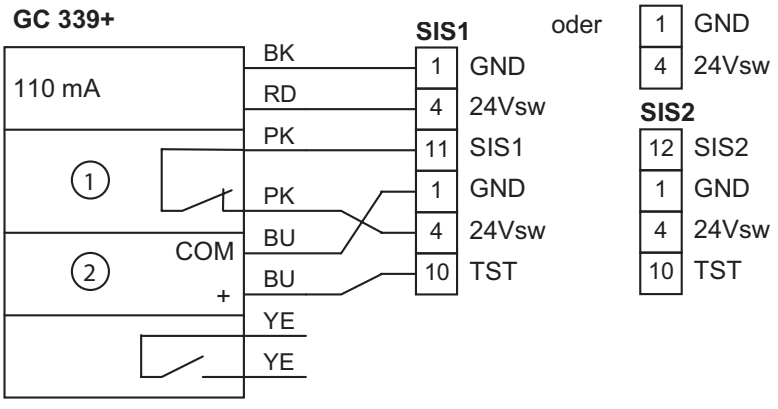
  AIR: OUTPUT DIP 7 set to OFF (NC)

Parameter setting DCU1-NT-eco for activation devices

- Set PARAMETER C. (contact sensor inside, contact type) OR Co (contact sensor outside, contact type) TO 01 (normally open contact).

5.3 GC 339+ active infrared light curtain

EN 16005



1 Active infrared detector
2 Test

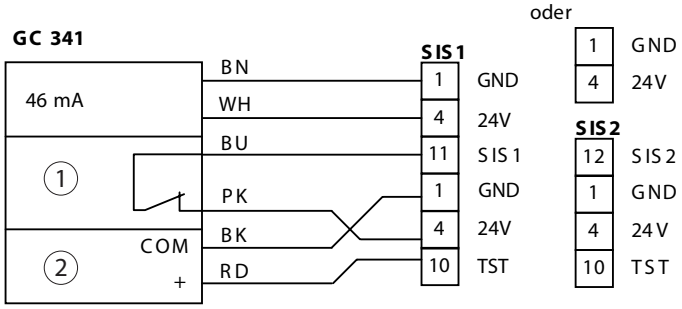
GC 339+ parameter settings

- Output configuration:

  AIR: OUTPUT to 1 (NC)

5.4 Active infrared detector GC 341

EN 16005



1 Active infrared detector
2 Test

Parameter setting GC 341

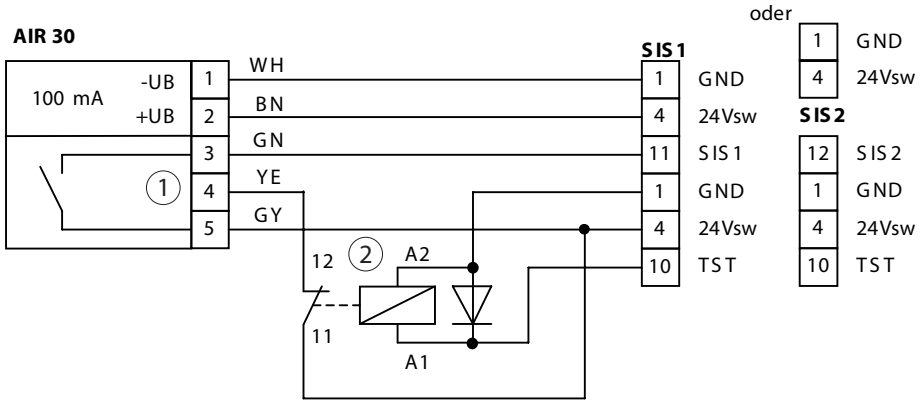
- Output configuration:
  AIR: OUTPUT DIP 7 set to OFF (NC)

5.5 Active infrared sensor push button AIR 30

EN 16005

- In order to safeguard the closing process in compliance with EN 16005, 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.

- Relay with free swing diode



1 Test
2 Relay with free swing diode

Illustration: with operating voltage switched off

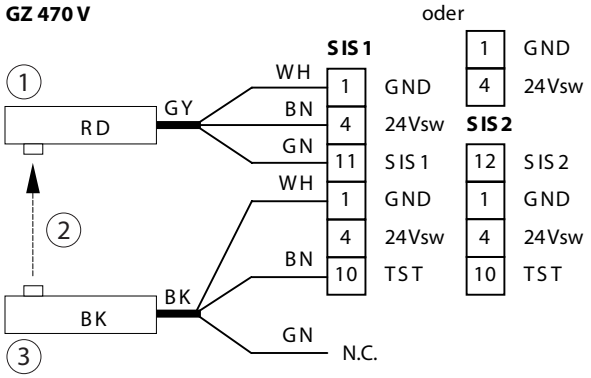
- ▶ Only use the AIR 30 as an additional sensor for monitoring closing.
- ▶ Set the light/dark selector switch to (D) (setting dark-switching)
- ▶ Adjust the scanning range to 0.2 m above the floor using the adjustment screw.

5.6 1-channel photoelectric barrier GZ 470 V

EN 16005

In order to safeguard the closing process in compliance with EN 16005, 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.

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



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

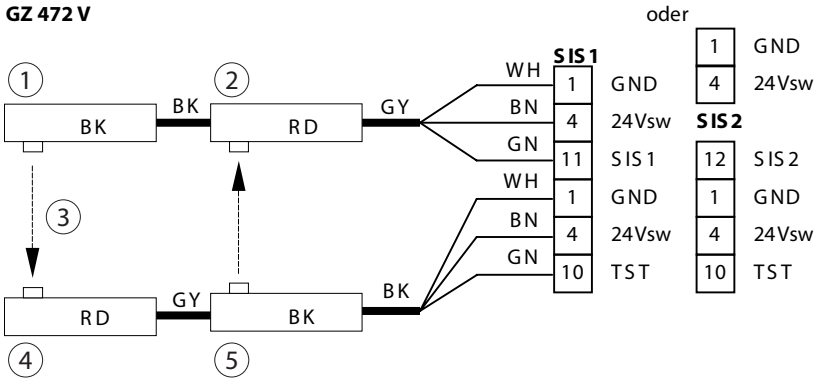
- Installation 1.0 m above the floor.
- Current consumption GZ 470 V: 50 mA

5.7 2-channel photoelectric barrier GZ 472 V

EN 16005

In order to safeguard the closing process in compliance with EN 16005, 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.

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



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

6 Safety sensor “open”

Further information on series connection of the safety sensors is provided in chapter “7.2 ‘Open’ safety sensor” on p. 20.

- ▶ Configure the DCU1-NT-eco SIS1/SIS2 to ‘SIO Stop’.
- ▫ Up to two “Open” safety sensors can be connected (terminals SI1 and SI2).
- ▫ During detection, the output of the safety sensor “open” is open. GND is applied to input SI1 and SI2.

Parameter setting DCU1-NT-eco for safety sensors

- ▶ Set contact type for terminals used:
  - ▫ With DPS:set S1 or S2 to 02.
  - ▫ ST 220: set parameter “SI1” or “SI2 contact type” to “Open”.
- ▶ Set function for terminals used (see chapter 18.1.4 Service menu ST 220 and chapter 18.2.2 Service menu DPS):
  - ▫ Set DPS parameter F1 or F2.
  - ▫ Set ST 220 parameter “SI1” or “SI2 function”.

6.1 GC 339+ active infrared light curtain

See chapter “5.3 GC 339+ active infrared light curtain” on p. 12..

6.2 Active infrared detector GC 341

See chapter “5.4 Active infrared detector GC 341” on p. 13.

6.3 Active infrared sensor push button AIR 30

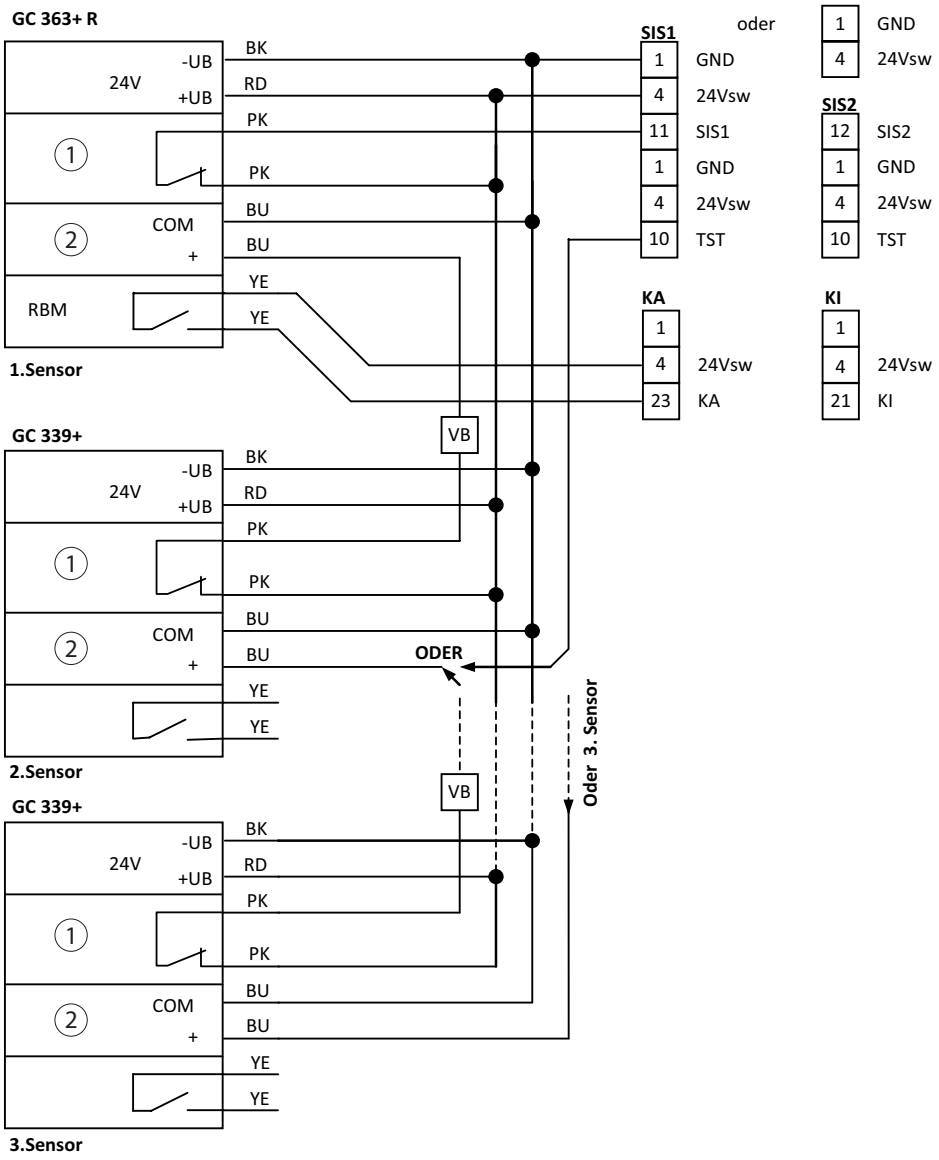
See chapter “5.5 Active infrared sensor push button AIR 30” on p. 13.

7 Series connection of safety sensors

7.1 'Close' safety sensor (standard doors)

EN 16005

7.1.1 GC 339+ active infrared light curtain with GC 363+ R activation sensor



1 Active infrared detector
2 Test
VB Connectingthe cores and securing the sensor leads (see "7.2 'Open' safety sensor" on p. 20.

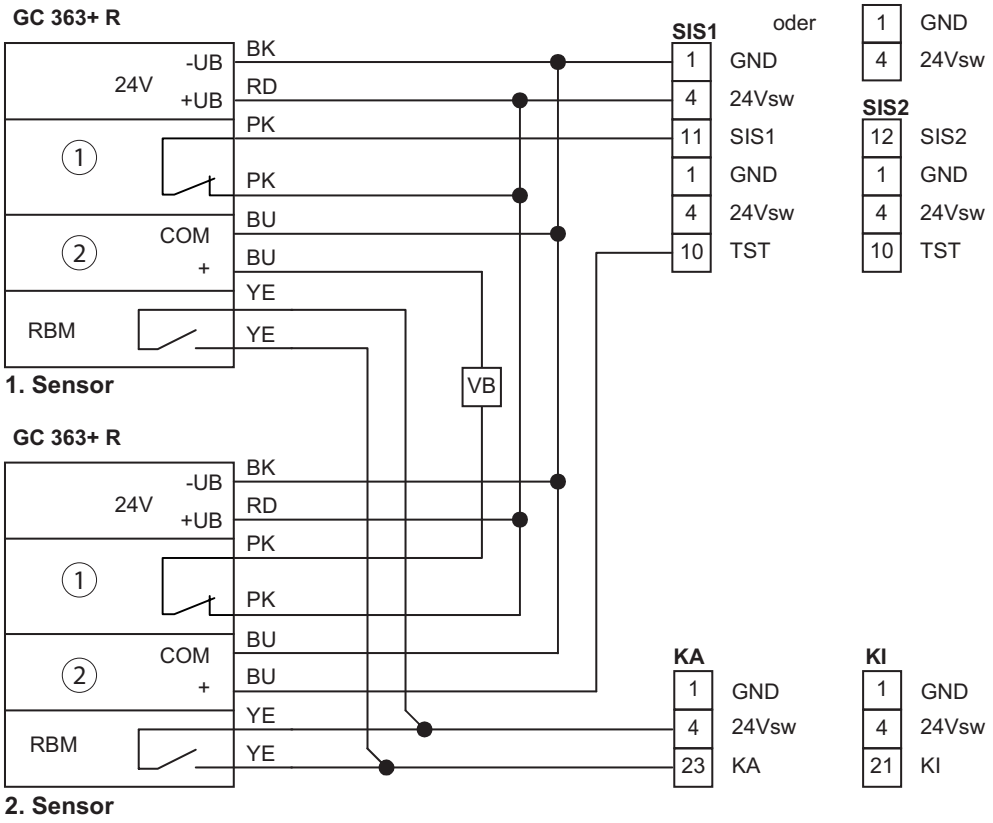
GC 363+ R parameter settings

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

GC339+ parameter settings

- AIR: OUTPUT to 1 (NC)

7.1.2 Security/activation sensors GC363+ R



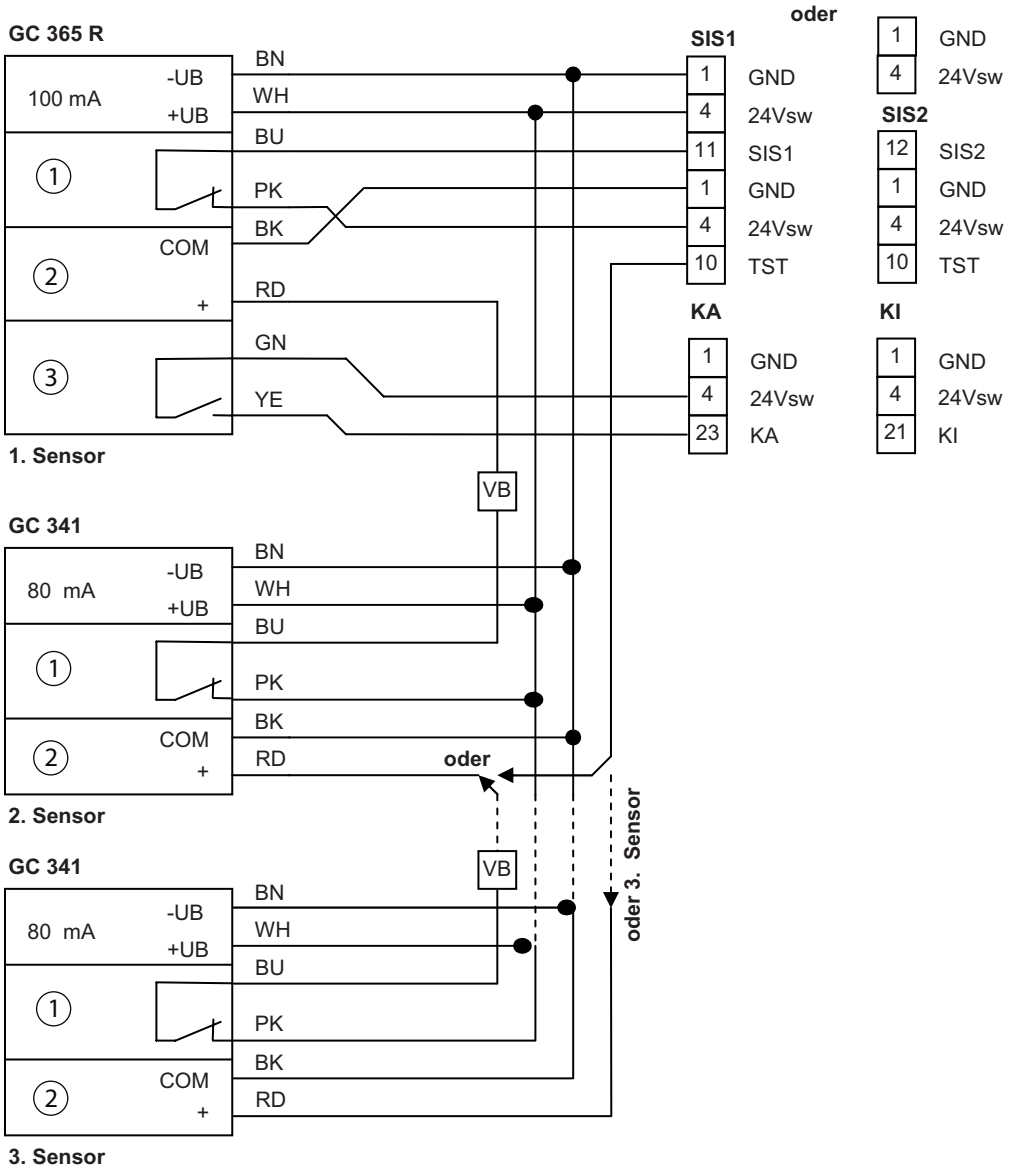
1 Active infrared detector
2 Test
VB Connecting the cores and securing the sensor leads (see chapter"9.4 Sicherung der Sensorleitung gegen Kurzschluss" on p. 28.).

GC 363+ R parameter settings

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

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

For further information see chapter 5.2 Active infrared detector and radar movement detector GC 365 R.



1 Active infrared detector
2 Test
3 Radar movement detector
VB Connecting the cores and securing the sensor leads (see chapter"7.2 'Open' safety sensor" on p. 20.).

Parameter setting GC 365 R

- Output configuration:

RAD: OUTPUT	DIP 12 set to OFF (NO)
AIR: OUTPUT	DIP 7 set to OFF (NC)

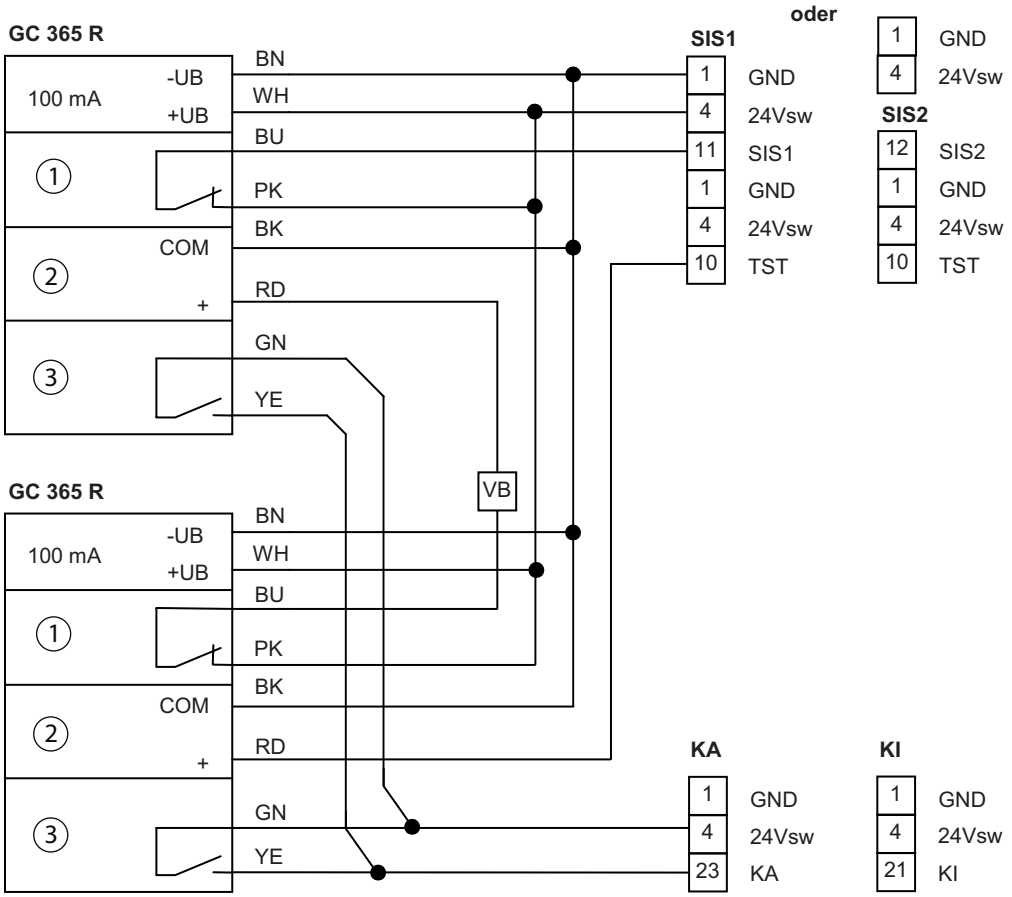
Parameter setting GC 341

- Output configuration:

AIR: OUTPUT	DIP 7 set to OFF (NC)

7.1.4 Security/activation sensors GC 365 R

For further information see chapter 5.2 Active infrared detector and radar movement detector GC 365 R.



1 Active infrared detector
2 Test
3 Radar movement detector
VB Connecting the cores and securing the sensor leads (see chapter"7.2 'Open' safety sensor" on p. 20.).

Parameter setting GC 365 R

- Output configuration:

RAD: OUTPUT	DIP 12 set to OFF (NO)
AIR: OUTPUT	DIP 7 set to OFF (NC)

7.2 'Open' safety sensor

The series connection of 'Open' safety sensors is carried out in the same way as the series connection of 'Close' safety sensors. See chapter "7.1 'Close' safety sensor (standard doors)" on p. 16.

7.2.1 GC 339+ active infrared light curtain

See chapter 5.3 GC 339+ active infrared light curtain.

7.2.2 Active infrared detector GC 341

See chapter 5.4 Active infrared detector GC 341.

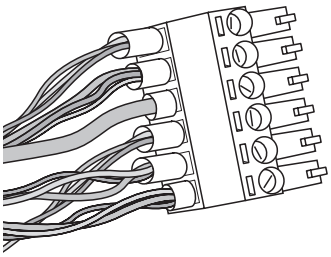
7.2.3 Active infrared sensor push button AIR 30

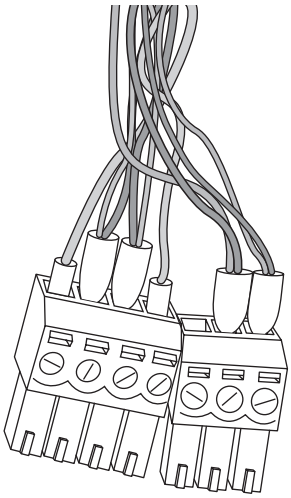
See chapter 5.5 Active infrared sensor push button AIR 30.

7.3 Protecting the sensor cable against short circuits

Connect sensor lines to the SIS1, SIS2 connectors as follows:

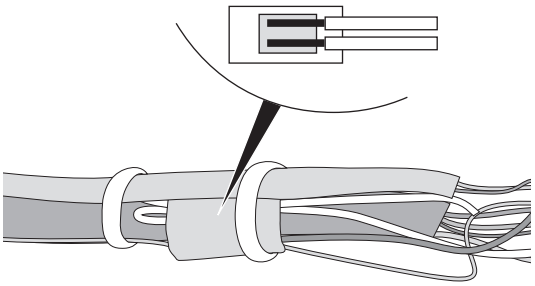
Combine several wires to be connected in one wire-end ferrule





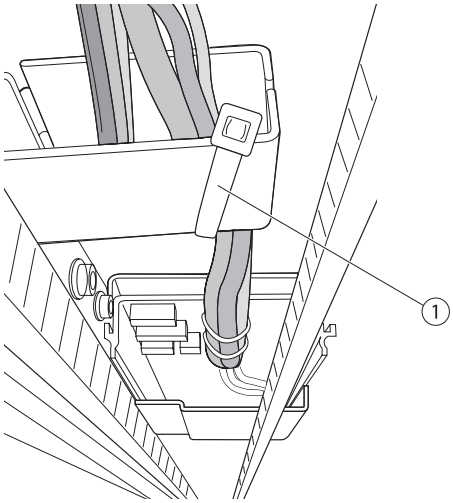
Connect VB wires using an insulated parallel connector

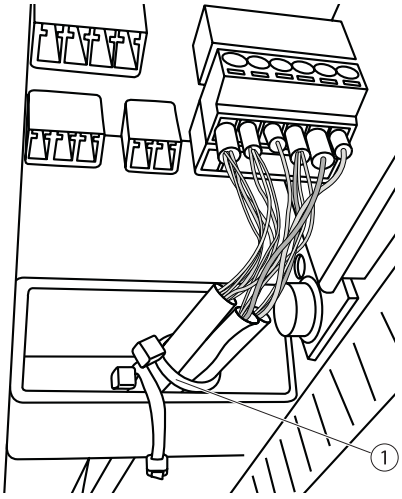
- Use shrink tubing to insulate wires until the start of the cable sheath. The shrink tubing must project 10 mm over the insulated parallel connector.
- Lay the insulated wires backwards over the cable sheaths.
- Insulate non-used wires and lay them backwards over the cable sheaths.
- Fix wires and cables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



Secure sensor cables against movement

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





8 Mechanical contact

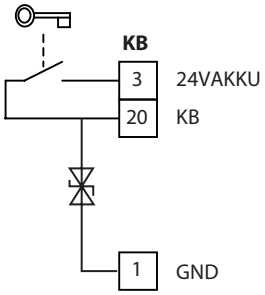
Does not meet the escape route requirements according to EN 16005.

- 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

If the activation device at the KB input is installed away from the building (e.g. on a bollard), a protective diode BZW06-33B, is required at the KB input of the control DCU1-NT, DCU1-2M-NT.



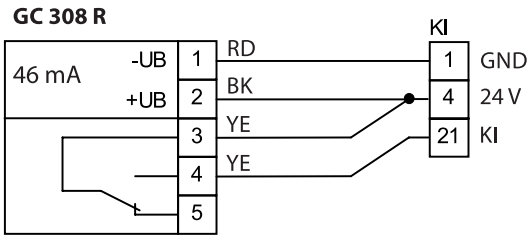
9 Contact sensor inside

Does not meet the escape route requirements according to EN 16005.

- The KI input is active in modes of operation Au and LS.
- During activation, the output of the contact sensor inside is closed (24 V are applied to the KI input).

9.1 Radar movement detector GC 308 R

- The GC 308 R is a direction-sensitive radar movement detector.



9.2 GC 363+ R active infrared light curtain and radar movement detector

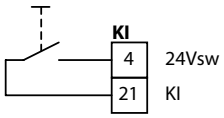
See chapter 5.1 GC 363+ R active infrared light curtain and radar movement detector.

9.3 Active infrared detector and radar movement detector GC 365 R

See chapter 5.2 Active infrared detector and radar movement detector GC 365 R.

9.4 Push button (potential-free contact)

- Plastic elbow switch
- Stainless steel elbow switch



10 Contact sensor outside

Does not meet the escape route requirements according to EN 16005.

- 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).

10.1 GC 308 R radar movement detector

See chapter 9.1 Radar movement detector GC 308 R

10.2 GC 363+ R active infrared light curtain and radar movement detector

See chapter 5.1 GC 363+ R active infrared light curtain and radar movement detector

10.3 Active infrared light curtain and radar movement detector GC 365 R

See chapter 5.2 Active infrared detector and radar movement detector GC 365 R.

10.4 Push buttons (potential-free contact)

See chapter 9.4 Push button (potential-free contact).

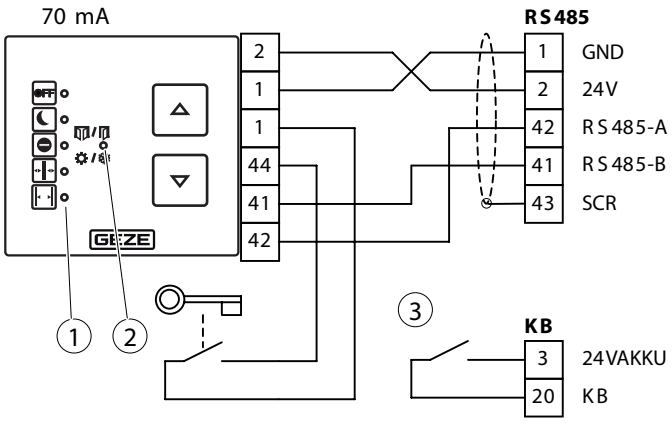
11 Mode of operation

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

11.1 Keypad programme switch

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.

- Operating Modes:
  - Automatic, exit only, hold open, summer/ winter
- Operation of the programme switch can be blocked for unauthorised persons by using a key switch or assigning a password (see chapter 9.4.2).

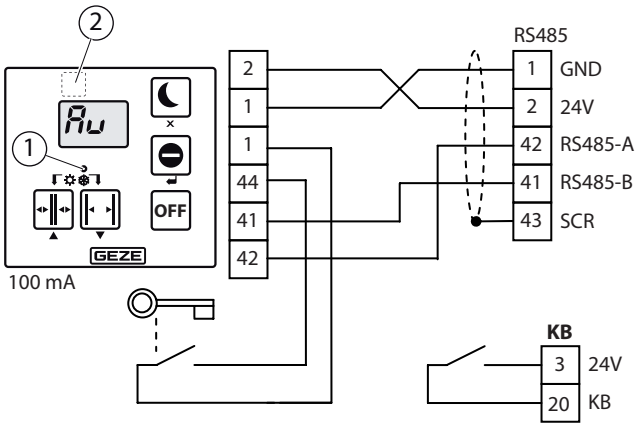


1 LEDs for mode of operation display
2 LED for reduced opening width
3 Additional contact

11.2 Display programme switch (DPS) with OFF switch

- Modes of operation: OF, nA, LS, Au, do, summer/winter opening width
- Operation of the programme switch can be blocked for unauthorised persons by using a key switch or assigning a password (see chapter 9.4.2). Switching between summer/ winter opening width:

▶ Press the ▲▼ keys simultaneously.



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

11.3 Reset function (DPS with OFF switch, TPS)

In the Off operating mode, 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.

Further information on operation and the operating modes is provided in the user manual.

11.4 Permanent release of programme switch operation

▶ For permanent release, either attach a jumper between terminals 1-44 of the TPS or DPS.

or

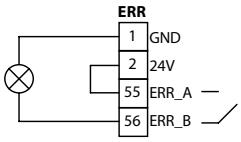
▶ Set the value “00” (factory setting) as the DPS/TPS password in the Service menu.

12 ERR (fault)

- Set parameters for fault indication:
  - With DPS: Set A1 to 02.
  - With ST 220: Set “Contact type” to “Fault normally closed contact” (factory setting).

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).



13 Mains connection

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.

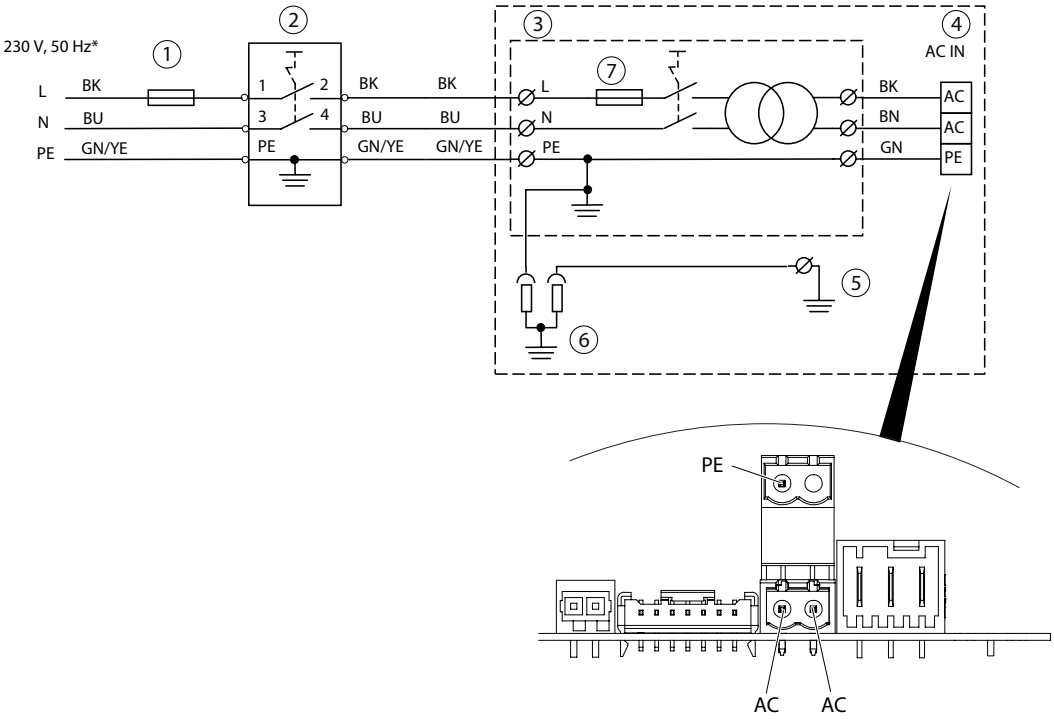
Note on protective earth check

Carry out the measurements whilst the system is de-energised; switch off the mains fuse

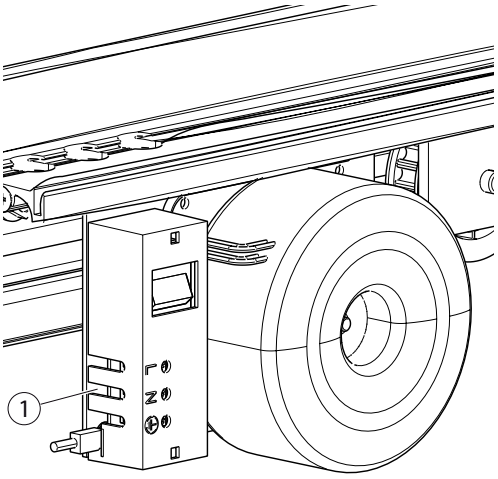
- Insulation test
  - Requirement: Insulation test at 500V, insulation resistance between conductor and PE > 1MΩ
  - Test points between:
    1) Mains connection terminal for conductor L1 and mains connection terminal PE.
    2) L1 conductor and track.
    3) L1 conductor and module carrier.
- Protective earth check
  - Requirement: Protective earth check at 0.2A; low-resistance protective conductor connection to all accessible and earthed metal parts, < 0.2 Ω (Depending on the type and length of the supply cable, the resistance value may vary.) With a conductor cross-sectional area of 1.5mm², for example, the conductor resistance is approx. 13 mΩ/m.)
  - Test points between:
    1) PE and mains connection terminal PE (on the transformer).
    2) PE and track or module carrier.
    3) PE and control housing.
    4) PE and cover.

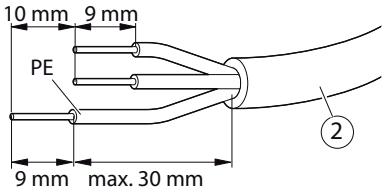


Bare patches on the relevant metal parts must be selected as test points



1 Mains fuse on site, 4A...16A
2 Main switch (optional)
3 Transformer
4 Control unit
5 Cover earthing
6 Earthing connection
7 Primary fuse, rating 5×20mmT2AH for transformer





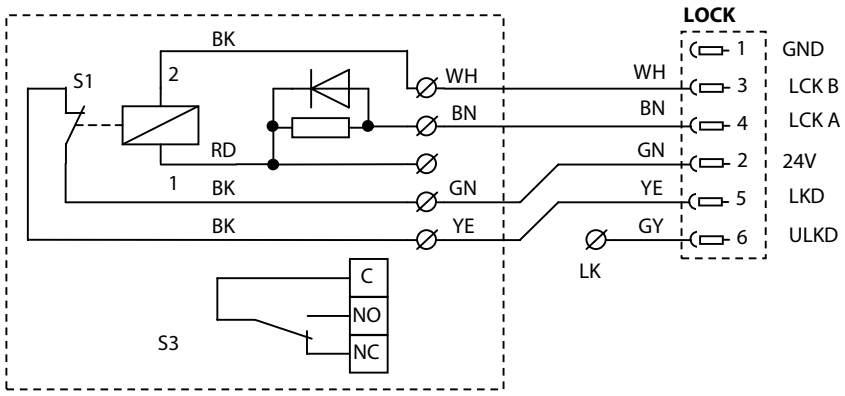
1 Mains connection terminal 230 V/115 V

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

14 Locking mechanism

14.1 Toothed belt locking

- Toothed belt locking ECdrive T2

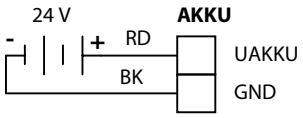


- Illustration in unlocked state.
- Switch S3 can be installed optionally,
  switching voltage max. 24 V AC/DC and switching current 0.5 A.
- In the locked state, switches S1 and S3 are actuated and the contact of switch S1 is opened.

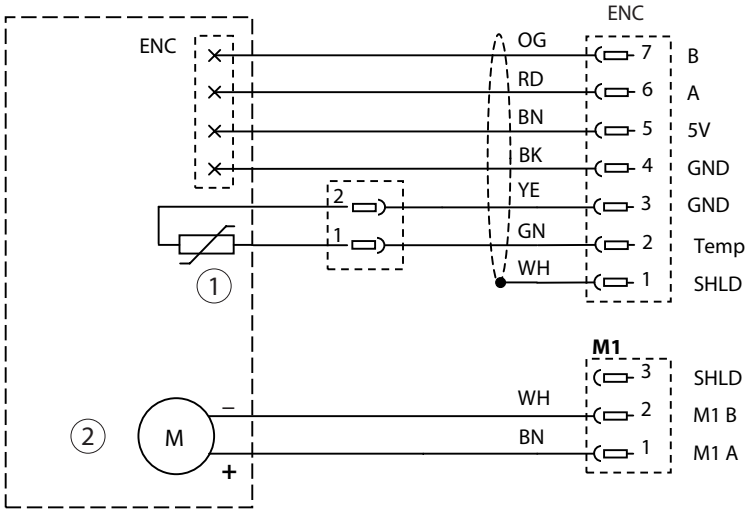
15 Rechargeable battery

Rechargeable battery

- Voltage in charged state: ≥26 V (with rechargeable battery unplugged).



16 Motor gear unit



1 Temperature sensor
2 Motor gear unit 1

17 Commissioning and service

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

Only one service tool may be used at once!

17.1 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!
Risk of fatal injury due to electric shock!
- ▶ Disconnect the drive from the 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 the drive to the power supply.

- ▶ Reset the control to factory settings using CP, display programme switch indicates LE.
- ▶ Press the service button and the icon corresponding to Ru at the same time (see service menu, display programme switch operation); the production test will start:
  - 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.
- ▶ Follow the instructions on the ST220.
- The status is displayed.
- ▶ Unplug the rechargeable battery after the production test and leave it unplugged until commissioning.

17.2 Commissioning

17.2.1 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 that is already connected will not interfere with commissioning with the display programme switch.
- ▶ 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 previously taught controls, the mode of operation must be *Au*, *LS do* (teaching cannot be done in *OF* and *MA*).
- ▶ Set parameters for control, in particular:
  - ▫ *EF* Number of door leaves
  - ▫ *Ci* Contact sensor inside
  - ▫ *S1*, *F1*, *S2*, *F2* safety sensors (function and contact type)
- ▶ Close the door up to approx. 5 cm.
- ▶ Select the function *LE* in the Service menu.

CAUTION
The leaves accelerate quickly when the leaf mass is being determined.
- ▶ Step out of the travel path.
- ▶ Teach the control by pressing the enter key.

- ▫ 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
    - ▫ The leaves come to a standstill with *L6*.
    - ▶ Manually move the leaf to the desired reduced opening width and confirm ↵.
    - ▫ Automatic acceptance of the current position occurs after 20 sec. only with control DCU1-NT-eco.
  - ▫ *L7* End learning
- ▶ To save the calculated values, confirm ↵.
- ▫ 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.
- ▶ 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.

17.2.2 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.

▶ 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' and '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 previously taught controls, the set 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 serial no. — 12-digit serial number of the drive
- KI — Type of contact and delay contact sensor inside
- SI1, SI2 — Contact type 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)
  - Red. opening width opening wid. — The leaves come to a standstill in the teaching programme "reduced opening width".
    ▶ Manually move the leaf to the desired reduced opening width and confirm ↵The current position is automatically saved after 20 s.
    The control system limits the reduced opening width – which can be adjusted during the learning process – to a minimum of 30 percent of the system's previously determined opening width.
  - Teaching programme quit teaching — End of teaching

▶ To save the calculated values, confirm ↵.
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.
- Once a brand-new control system has been programmed, the system automatically switches to the automatic mode of operation.

▶ Check the running behaviour of the door and adjust other parameters if necessary.
▶ Clear the fault memory.
▶ Disconnect ST 220.

17.2.3 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.

▶ Use the ST220 to select 'Off' mode of operation, or use the display programme switch to disengage the motor *Fr*.
▶ Mount drive cover and turn locking pin back in if necessary.
▶ Use the ST220 to select the automatic mode of operation, or use the display programme switch to switch the motor on *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 that the system locks when switching to night mode of operation and unlocks when switching to *Au* mode of operation.

17.3 Service

17.3.1 Service with DPS

After making changes to 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 SR).
- Note faults in the fault memory Er and oE.
- Clear fault memory oE.
- Reset service display (CS).

17.3.2 Service with ST 220

After making changes to 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 “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”

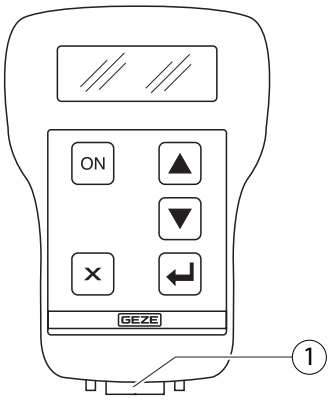
18 Service menu

18.1 ST 220 service terminal

- ST 220 service terminal
- The drive can be commissioned with service terminal ST 220, software version from V2.1.

18.1.1 Operation ST 220

Key	Function
▲	Cursor upwards Increase number value Scroll upward (if key is pressed longer than 2 s)
▼	Cursor downwards 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 back 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

18.1.2 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)			
EC T2 eco	**6.1.1 B2**		
DCU1-NT-eco			
Automatic	**Summer**		
opens			
		EC T2 eco	ECdrive T2 eco drive type
		DCU1-NT-eco	Control type
		Automatic summer	Current mode of operation
		opens	Current status. If a fault is pending, the fault is shown rather than the status.
		6.1.1	Software version
		B2	Hardware version

18.1.3 Password prompt ST 220

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

```
Password
0---
*
```

- Enter the 4-digit password, consisting of numbers and letters (0 … 9, A … Z, a … z), using the push buttons ▲ and ▼.
  The position to be entered is indicated in the line below by the * symbol.
- Confirm the digit entered and move to the next digit using the push button ↵.
- Cancel entry using the key ×.
- After entering the password, confirm it by pressing the ↵push button.

18.1.4 Service menu ST 220

Mode of operation

Designation	Setting values	Explanation
Mode of operation	Off Night mode Exit only Automatic Hold open	Current mode of operation is displayed and can be changed.
Season	Summer Winter	Full opening width Reduced opening width
Open doors	▲ - Key	

Door parameters

Designation	Setting values	Explanation
Number of leaves	Close on one side **Close centrally**	–
Drive type	ECdrive T2 eco	–
Product serial number	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 ↵.
Maintenance message after operating time	1...**12**	Months
Maintenance message after cycles	100,000...**500,000**	Cycles Cycle: open from closing position and close completely again.
Power failure not NA	**No function**	Behaviour of the drive in case of a power failure in modes of operation LS, AU and DO.
	Close	Close 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 in case of fault	**No**	
Electric locking mechanism	**Without**	
	Bistable	The two-stage locking is automatically detected during commissioning.
ECO mode	**Yes**	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).

Movement parameters

Designation	Setting values	Explanation
Opening speed	max. 70 cm/s	Opening speed
Closing speed	max. 60 cm/s	Closing speed
Acceleration	1 … **20** …40 ×10 cm/s^2	Accelerating and braking when opening and closing The maximum speed and acceleration are dependent on the door weight and friction.
Stat. force open	10...**150** N	Maximum static force during opening
Stat. force close	10...**150** N	Maximum static force during closing
Initial closing pressure	80 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	–
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**	–		
SI1 – terminal SIS1 function	**SIS rev** SIO stop	–	SIS rev SIO stop	Door reversing Door stops during opening.
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**	–		
SI2 – Terminal SIS2 function	**SIS rev** SIO stop	–		

Activation sensors		
Designation	Setting values	Explanation
KB current state	Indication of state, contact type	Mechanical contact
KB Contact type	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	
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	–

Output signals

ERR outputs		
Designation	Setting values	Explanation
Current state	–	
Contact type	Fault NO contact **Fault normally closed contact**	Fault Collective problem signal

Diagnosis

Designation	Setting values	Explanation
Current values	SI1, SI2 KB, KI, KA Bolt 1, bolt 2	V
	ERR Bolt TST	V
	Current Position Current Motor current Mains voltage Rechargeable battery voltage 24 V internal DCU100 temperature Motor gear unit DCU100 temperature Cycles Operating hours Tests	mm A on/off V V °C °C Hours
Current states	SI1, SI2 KB, KI, KA Bolt 1, bolt 2	The logical state of the signal is displayed (active, inactive, fault).
	ERR Bolt TST ECO mode	
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.	
Start production test	yes/no	

Further settings

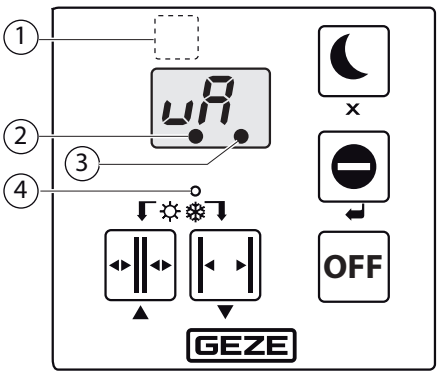
Designation	Setting values		Explanation
Start teaching	yes/no		
Factory setting	yes/no		
Default values	yes/no		(taught values are retained)
Clear maintenance	yes/no		Clear maintenance display
Change password	Password Service 1	Password old **0000** Password new	Password Service 1: for access to the 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**. ▶ The current position is indicated by the asterisk below. ▶ After entry, press ↵ to confirm the password. Important information: ▫ When the password for ST 220 is set, access to the Service menu via DPS is no longer possible. ▫ If the password is forgotten, a special flash file must be requested from GEZE with which the password on the control unit can be reset to 00. ▫ The password cannot be deleted by installing a new software version.
Password DPS/TPS			
Language	**German** English Français Italiano Espanol		Language of the service terminal

18.2 Display programme switch DPS

DANGER!
Risk of fatal injury due to electric shock!
- The drive is not de-energized in the Off operating mode. In this mode of operation, the drive is switched off for maintenance purposes.

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	×	Cancel and return to first menu level
	LS	Shop closing time	↵	Confirm
	Au	Automatic	▲	Scroll up increase value
	do	Hold open	▼	Scroll down Reduce value
OFF	OF	Off		(Only with mat. no. 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.

18.2.1 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 2 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 service terminal ST 220 is active at a drive, the service mode is blocked via the DPS. When attempting to activate service mode, this status is displayed on the display programme switch as “Ns” (no service).

18.2.2 Service menu DPS

1st menu

Display	Explanation	Setting values
uO	Opening speed	03 04…10 12…20 25…**50** 70 cm/s *)
uC	Closing speed	03 04…10 12…**20** 25…50 60 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
bO	Acceleration	1…10 12…**20** 25…40 × 10 cm/s^2 *) (multiply display by 10)
FO	Static force open	01 10 **15** × 10 N (multiply value displayed by 10)
FC	Static force closed	01 10 **15** × 10 N (multiply value displayed by 10)
CL	Reversing limit	01 02…**06**…10 12…20 25 mm
nE	Switch to 2{541}nd{542} menu	–
		*) The maximum speed and acceleration depend on the door weight and friction.

2. Menu

Display	Explanation	Setting values
S1	Safety 1 contact type	00 Not used **02 Normally closed contact**
F1	Safety 1 function	**01 SIS rev** 05 SIO stop
S2	Safety 2 contact type	00 Not used **02 Normally closed contact**
F2	Safety 2 function	**01 SIS rev** 05 SIO stop
Cb	Mechanical contact, contact type	00 Not used **01 Normally open contact**
Ci	Contact sensor inside contact type	00 Not used **01 Normally open contact** 02 Normally closed contact
Co	Contact sensor outside contact type	00 Not used **01 Normally open contact** 02 Normally closed contact 04 Frequency
AI	Contact type ERR	02 Fault normally opened contact 03 Fault normally closed contact
nE	Switch to 3{543}rd{544} menu	–

3rd menu

Display	Explanation	Setting values
Er	Currently queued errors	CE Clear error memory
oE	Old faults (the last 10 faults)	CE Clear error memory
d1	Diagnosis	r0 Without locking mechanism r1 With locking mechanism A0 Without rechargeable battery A1 With rechargeable battery xx Leaf weight (x 100 kg) yy + leaf weight (x kg) S8 ECO mode
SB	ECO mode	**01 On**
St	Control unit type	04 DCU1-NT-eco
SA	Operating duration (6-digit display)	Co Number of cycles / 100 Ho Operating hours / 4 Fo Number of self-tests
CS	Switch off service LED	cS Displayed briefly for acknowledgement
CP	Restore factory setting	–
Fr / Fo	Enable/activate motor gear unit	–
SP	Language	00 German 01 English 02 Français 04 Italiano 05 Espanol
LE	Start teaching	–
EP	Software version	e.g. St 6 1 for DCU1-NT-eco V6.1

4th menu

Display	Explanation	Setting values
At	Drive type	**25 ECdrive T2 eco**
EF	Number of door leaves	01 Close on one side **02 Close centrally**
AC	Power failure in LS, AU or DO	**00 No function** 02 Close 04 Rechargeable battery operation 30 min., then close
Eo	Open after fault	**00 Door remains closed**
rt	Bolt type The two-stage locking is automatically detected during commissioning.	**00 No locking mechanism** 01 Bistable

19 Error messages

19.1 Display programme switch/service terminal ST 220

For troubleshooting and fault descriptions see “Faults and measures for control device DCU1-NT”.
Currently pending fault messages are displayed briefly in cycles (10 s) on
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
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 does not switch or safety sensor "Close 1" faulty or activation longer than 4 minutes.
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 does not switch or safety sensor "Close 2" faulty or activation longer than 4 minutes.
26	Initialisation	Taught opening width is not reached.
28	Motor relay	Motor relay in control component defective.
34	TPS	No communication between control – keypad programme switch.
37	KI1	Movement detector defective or activation longer than 4 min.
39	KA	Activation longer than 4 min.
40	KB	Activation longer than 4 min.
45	DCU100 drive hot	Temperature > 110 °C (motor gear unit or control DCU100).
46	Motor gear unit gear unit temp. sensor	Motor 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).
54	Communication DPS	Interference of communication with DPS.
60	DCU100	Fault in control DCU100.
61	Rechargeable battery	Rechargeable battery flat.
63	Software	Software not compatible.
90	Control unit	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.

- In addition, the following states are displayed:
  - –– Mode selection blocked.
  - oo Mode selection enabled.
  - 00 Mode switching is locked via another interface.

19.2 Keypad programme switch

Display keypad programme switch					Designation	Display display programme switch
OFF						
–	–	–	–	–	No operating voltage	
–	–	–	x	x	Drive too hot	45, 46, 48
–	–	x	–	x	Position	26, x.x
–	–	x	x	–	SIS	13, 19
–	–	x	x	x	Motor gear unit	10, 11, 12
–	x	–	–	x	Activation takes longer than 4 min	37, 39, 40
–	x	–	x	–	Communication	15, 34, 54,
–	x	x	–	–	Rechargeable battery	61
x	x	–	–	–	Power failure	03
x	x	–	–	x	Control unit	01, 02, 28, 47, 60, 63, 65
x	x	x	–	–	Locking mechanism	16, 17, 18, 51

– 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.

19.3 Accessories, spare parts, wear parts

Mat. no.	Designation	Relevant chapter
203854	GC 363+ R black	"5.1 GC 363+ R active infrared light curtain and radar movement detector" on p. 11. „10.2 Aktiv-Infrarot-Lichtvorhang und Radarbewegungsmelder GC 363+ R" auf S. <?>.
203855	GC 363+ R according to RAL	"5.1 GC 363+ R active infrared light curtain and radar movement detector" on p. 11. „10.2 Aktiv-Infrarot-Lichtvorhang und Radarbewegungsmelder GC 363+ R" auf S. <?>.
203858	GC 339+ black	"5.3 GC 339+ active infrared light curtain" on p. 12. „6.1 Aktiv-Infrarot-Lichtvorhang GC 339+" auf S. <?>.
203859	GC 339+ according to RAL	"5.3 GC 339+ active infrared light curtain" on p. 12. „6.1 Aktiv-Infrarot-Lichtvorhang GC 339+" auf S. <?>.
160283	GC 365 R, combined detector, black	"5.2 Active infrared detector and radar movement detector GC 365 R" on p. 12. "10.3 Active infrared light curtain and radar movement detector GC 365 R" on p. 23.
160285	GC 341 light curtain, black	"5.4 Active infrared detector GC 341" on p. 13. "7.2.2 Active infrared detector GC 341" on p. 20.
072393	AIR 30	"5.5 Active infrared sensor push button AIR 30" on p. 13. "7.2.3 Active infrared sensor push button AIR 30" on p. 20.
103352	Relay with free swing diode	"5.5 Active infrared sensor push button AIR 30" on p. 13.
112726	GZ 470 V	"5.6 1-channel photoelectric barrier GZ 470 V" on p. 14.
112727	GZ 472 V	"5.7 2-channel photoelectric barrier GZ 472 V" on p. 14.
117996	Key switch SCT, single-pole, flush-mounted, AS 500 without Euro profile half cylinder	"8 Mechanical contact" on p. 22. "11.2 Display programme switch (DPS) with OFF switch" on p. 24.
090176	Euro profile half cylinder	"8 Mechanical contact" on p. 22. "11.1 Keypad programme switch" on p. 24. "11.2 Display programme switch (DPS) with OFF switch" on p. 24.
024467	Additional contact	"8 Mechanical contact" on p. 22. "11.1 Keypad programme switch" on p. 24. "11.2 Display programme switch (DPS) with OFF switch" on p. 24.

Mat. no.	Designation	Relevant chapter
165678	Protective diode BZW06-33B	“8 Mechanical contact” on p. 22.
124087	GC 308 R black	“9.1 Radar movement detector GC 308 R” on p. 23. “10.1 GC 308 R radar movement detector” on p. 23.
124088	GC 308 R according to RAL	“9.1 Radar movement detector GC 308 R” on p. 23. “10.1 GC 308 R radar movement detector” on p. 23.
099575	Remote control	“9.1 Radar movement detector GC 308 R” on p. 23.
115384	Ceiling installation kit	“9.1 Radar movement detector GC 308 R” on p. 23.
115339	Rain cover	“9.1 Radar movement detector GC 308 R” on p. 23.
114078	Plastic elbow switch, white	“9.4 Push button (potential-free contact)” on p. 23.
114077	Plastic elbow switch, stainless steel	“9.4 Push button (potential-free contact)” on p. 23.
119898	Stainless steel elbow switch	“9.4 Push button (potential-free contact)” on p. 23.
128582	Stainless steel elbow switch LS 990, surface-mounted	“9.4 Push button (potential-free contact)” on p. 23.
128583	Stainless steel elbow switch LS 990, flush-mounted	“9.4 Push button (potential-free contact)” on p. 23.
193226	GC 307+ standard flush-mounted	“” on p. 23. „10.5 Berührungsloser Ansteuersensor GC 307+“ auf S. <?>.
195727	GC 307+ standard surface-mounted	“” on p. 23. „10.5 Berührungsloser Ansteuersensor GC 307+“ auf S. <?>.
100061	Remote control	“” on p. 23. „10.5 Berührungsloser Ansteuersensor GC 307+“ auf S. <?>.
113231	TPS, AS500, flush-mounted	“11.1 Keypad programme switch” on p. 24.
113232	TPS SCT, AS 500, flush-mounted, with key switch, without Euro profile half cylinder	“11.1 Keypad programme switch” on p. 24.
120503	Surface cap, single, AS 500	“11.1 Keypad programme switch” on p. 24. “11.2 Display programme switch (DPS) with OFF switch” on p. 24.
128609	Surface cap, double, AS 500	“11.1 Keypad programme switch” on p. 24. “11.2 Display programme switch (DPS) with OFF switch” on p. 24.
151524	AS500, DPS with OFF, flush-mounted, alpine white	“11.2 Display programme switch (DPS) with OFF switch” on p. 24.
155810	AS500, DPS with OFF and SCT, flush-mounted, alpine white	“11.2 Display programme switch (DPS) with OFF switch” on p. 24. “18.2 Display programme switch DPS” on p. 39.
106530	Transformer for ECdrive 230 V / 50 Hz, 140 VA	“13 Mains connection” on p. 26.
181144	Toothed belt locking ECdrive T2,	“14.1 Toothed belt locking” on p. 28.
019080	Switch S3	“14.1 Toothed belt locking” on p. 28.
106863	Rechargeable battery,	“15 Rechargeable battery” on p. 28.
105009	Motor 1: Motor DCU1	“16 Motor gear unit” on p. 28.
158615	Control unit DCU1-NT	“3.2 Control unit” on p. 9.
158631	Terminal bag DCU1-NT	“3.2 Control unit” on p. 9.
087261	Service terminal ST 220	“18.1 ST 220 service terminal” on p. 33.

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