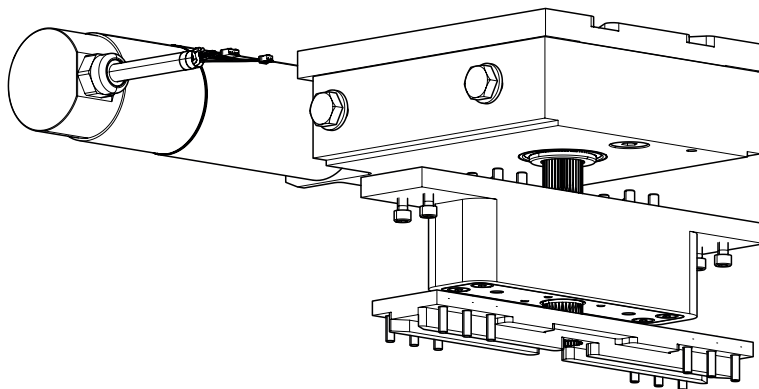




Axira

EN Wiring diagram

213815-00

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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 workflows
	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.
	Conforms to DIN 18650 / EN 16005 Symbol in a table or for information on safety sensors.
	Does not conform to DIN 18650 / EN 16005 Symbol in a table or for information on sensors that do not comply with DIN 18650 / EN 16005.
	Fire protection door Symbol for fire protection door
	Not permitted for fire protection door Symbol "Not permitted for fire protection door"

Validity

- Valid from software version DCU8 V1.8
- Hardware revision DCU800 from F0

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.

1 General information



The Axira drive system is a partly completed machine. It complies with all the relevant regulations of the guidelines 2014/35/EU and 2014/30/EU and may be installed and operated in automatic door systems in accordance with the Machinery Directive. The manufacturer of this machine must ensure that all requirements resulting from the Machinery Directive are observed. A risk assessment must be carried out and documented. Before initial commissioning, the manufacturer of the machine must issue an EC Declaration of Conformity in accordance with Annex II of the Machinery Directive 2006/42/EC and attach the CE marking visibly and permanently to the door system.

The extended risk assessment form is available to support the implementation of a risk assessment. The extended risk assessment, installation instructions and declaration of installation for the door drive must be enclosed with the technical documents.

2 Notes

2.1 Important safety instructions

To ensure personal safety, it is important to follow these safety instructions.

- ▶ Keep these instructions.
- Only specialists who are authorised by GEZE are permitted to carry out installation, commissioning and maintenance.
- If unauthorised changes are made to the system, GEZE cannot be made liable in any way whatsoever for any resulting damages.
- GEZE does not accept any warranty for combinations with third-party products. In addition, 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. Perform the mains connection and protective conductor test in accordance with VDE 0100 Part 610.
- ▶ Use an on-site circuit breaker as the mains-side disconnecting device, the rated value of which is matched to the type, cross-section, installation methods and ambient conditions of the on-site mains supply line. The circuit breaker must have a minimum rating of 4 A and a maximum rating of 16 A.
- Attach safety stickers to glass door leaves, mat. no. 081476.
- ▶ 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:
 - ASR A1.7 "Guidelines for doors and gates"
 - EN 16005 "Power operated pedestrian doorsets – Safety in use – Requirements and test methods"
 - Guidelines for hold-open systems
 - DIN VDE 100-600 "Installation of low-voltage systems - Part 6 Tests"
 - DIN EN 60335-2-103 "Household and similar electrical appliances - Safety; Particular requirements for drives, for gates, doors and windows"
 - Accident Prevention Regulations, in particular BGV A1 (VBG1) "General Regulations" and BGV A3 (VBG4) "Electrical Installations and Resources"

2.2 Installation information

- The drive is designed exclusively for use in dry rooms.
- ▶ Only use the cables specified in the wiring diagram. Connect the shields according to the connection diagram.
- ▶ Always use insulated wire end ferrules for wire cores.
- ▶ Insulate unused wires.
- ▶ Observe the maximum permitted total power consumption required to supply the periphery.

2.3 Safety-conscious working

- ▶ Secure the workplace against unauthorised entry.
- ▶ Observe the swivelling range of long system parts.
- ▶ Secure the drive/actuators against falling.
- ▶ 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.
- Danger of injury by moving parts (drawing in of hair, clothing, ...) when a drive is opened.
- Danger of injury caused by unsecured crushing, impact, drawing-in or shearing spots.
- Danger of injury due to sharp edges in the drive.
- Danger of injury due to glass breakage.
- Danger of injury when working at heights.
- Danger of injury through heavy leaves.

2.4 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.

2.5 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, slide nuts, ...)
 - Iron (drivers, screws, ...)
 - Plastic
 - Electronic components (bolt, motor gear unit, control unit, transformer, sensors, ...)
 - Cables

The parts can be disposed of at the local recycling depot or by a scrap metal recycling company.

- Rechargeable batteries contain pollutants and heavy metals. Do not dispose of these with household waste.
Hand in rechargeable batteries to your local recycler too.

3 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

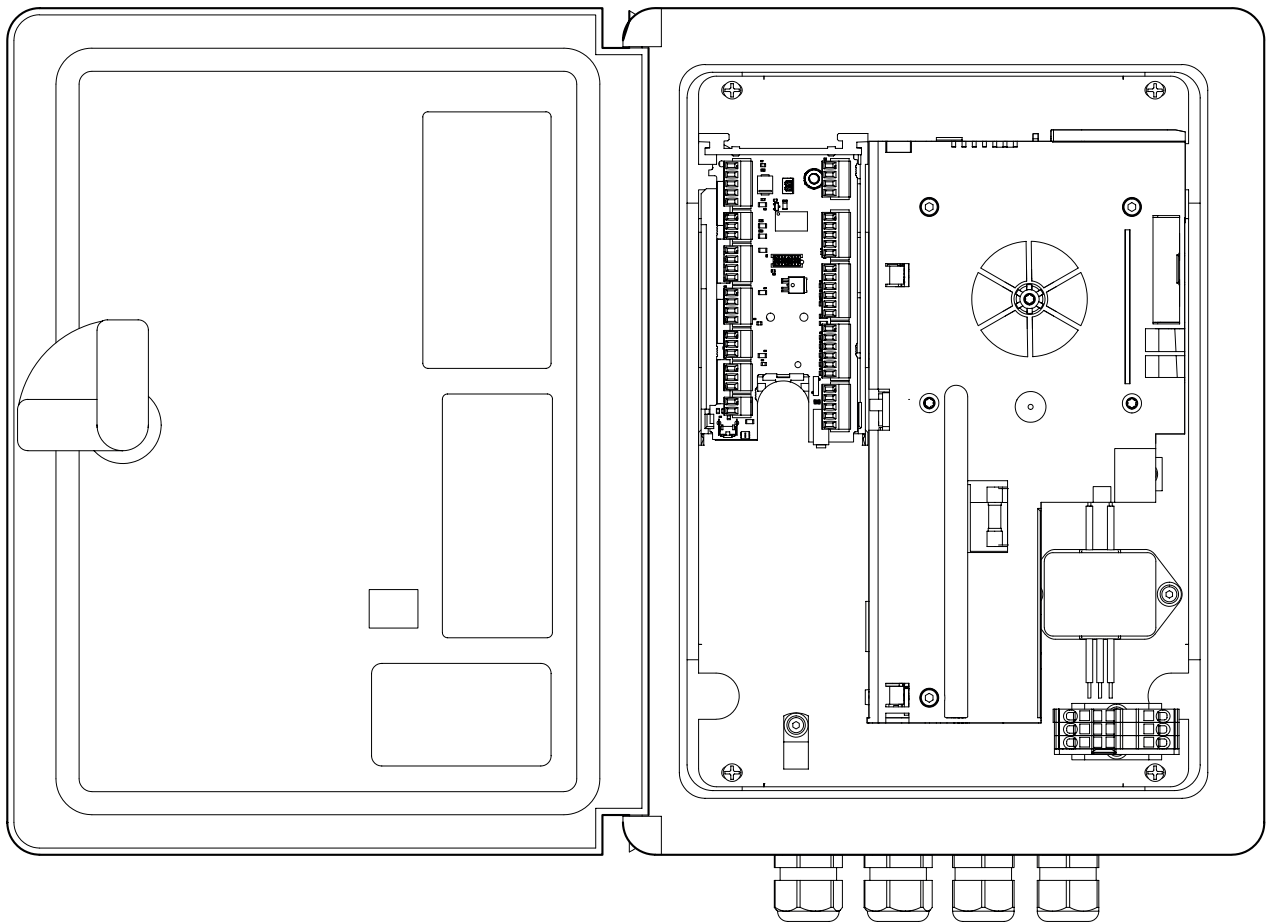
Connections, terminals and plugs

AU	Automatic	LS	Exit only	SF	Passive leaf
HS	Hinge side	MPS	Mechanical programme switch	STOP	Stop
BGS	Opposite hinge side	NA	Night mode	SCR	Screen
DO	Hold open	PA	Configurable output	SO	Safety sensor open
DPS	Display programme switch	PE	Configurable input	SIS	Safety sensor close
END	Latching action	RBM	Radar movement detector	STG	Fault
GF	Active leaf	RES	Reset push button	TK	Door transmission cable
GND	Reference potential	RM	Bolt message	TOE	Electric strike
KA	Contact sensor outside	RSZ	Smoke switch control unit	TST	Test signal for safety sensors
KB	Mechanical contact	RS485	Communication signal to DPS and second drive	24V	Supply voltage for external devices
KI	Contact sensor inside	OFF	OFF mode of operation	24VSENS	Supply voltage for sensors, switched after setting ECO mode
LK	Luster terminal				

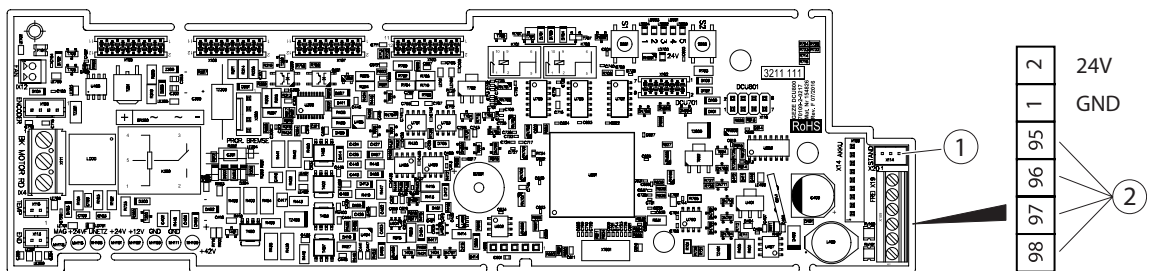
4 Electrical data

Mains voltage	230 V AC –15 %, +10 %
Frequency	50 Hz
Protection class	I
Capacity rating	200 W
Mains connection	Fixed connection (installation cable or drip loop)
Primary fuse	–
Secondary fuse	10 A slow-blow, 5×20 mm
Secondary voltage (transformer)	33 V AC (46 V DC)
Control voltage for external components	24 VDC ±10 %
Output current control voltage 24 V	1200 mA permanently 1800 mA briefly (5 s, duty ratio 30 %)
Fuse protection <24 V	2.5 A; reversible
Temperature range	–15 °C... +50 °C
IP rating	IP65

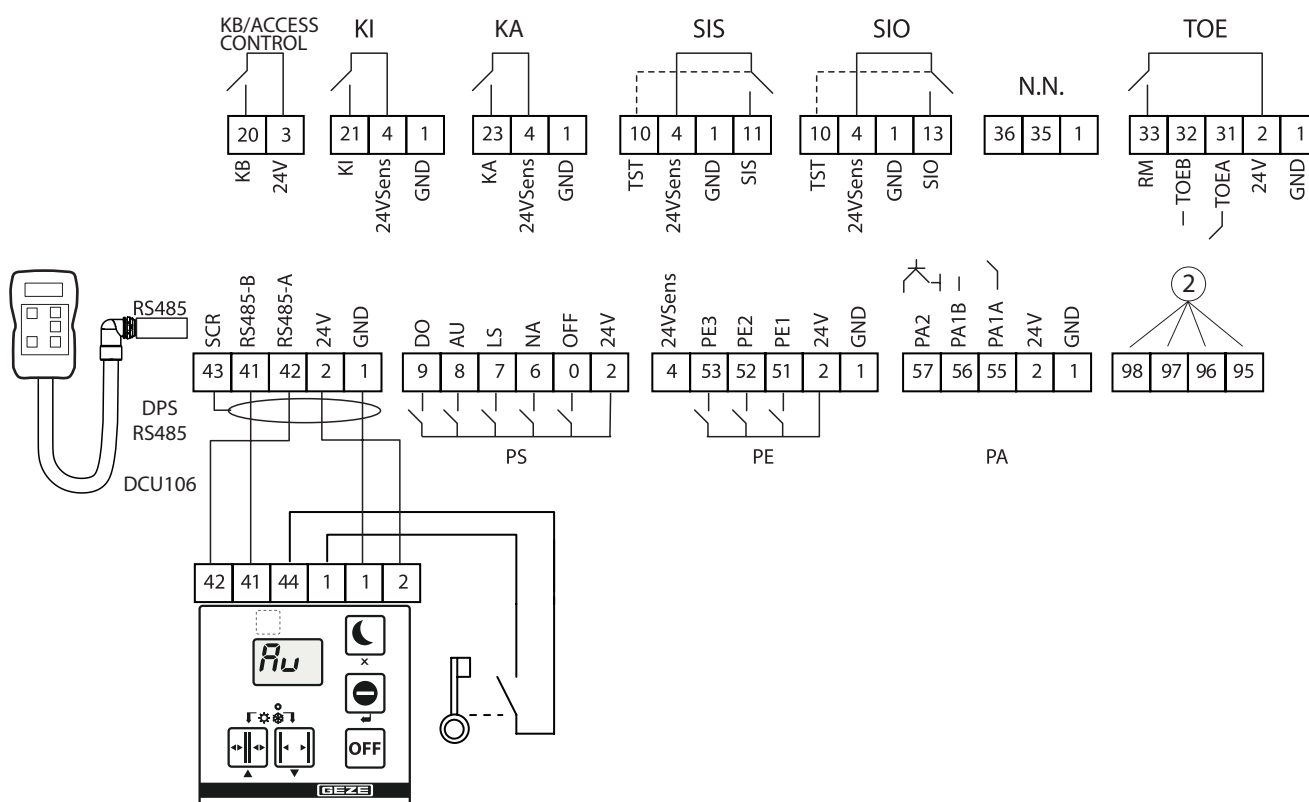
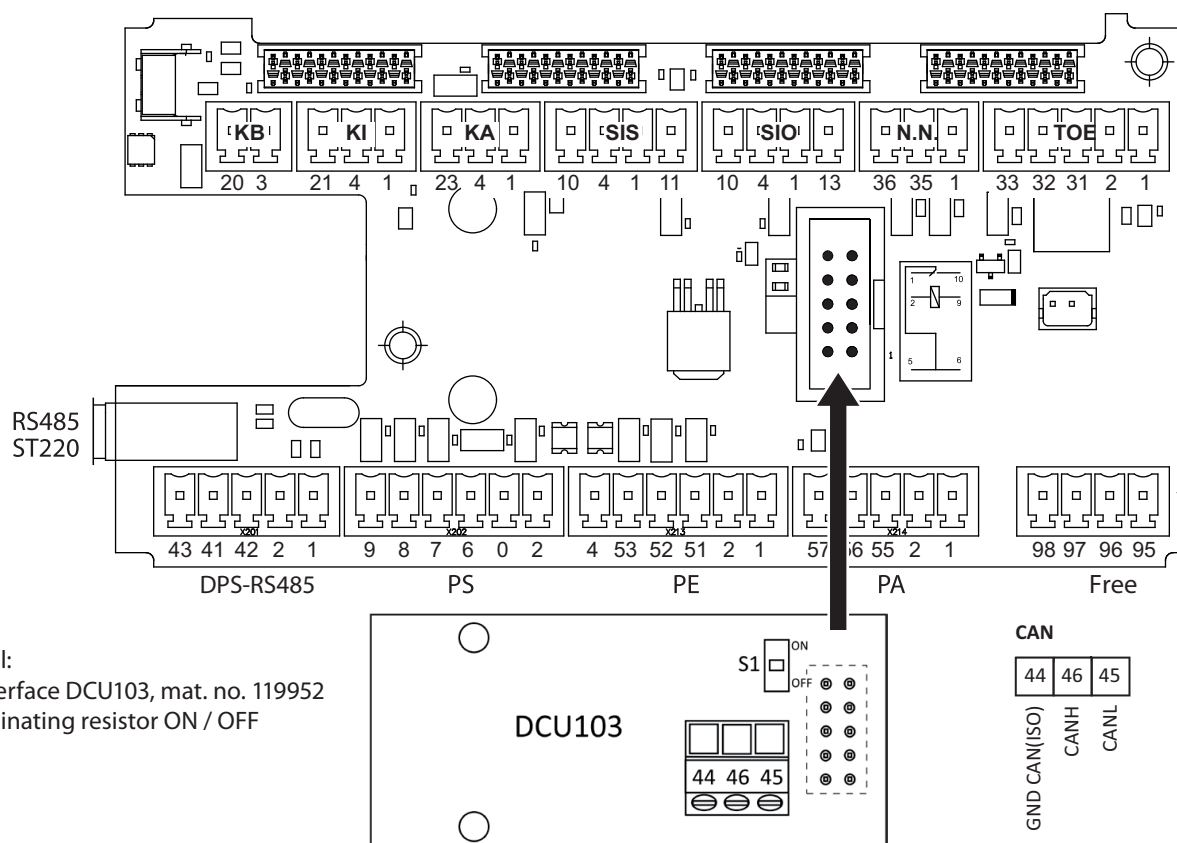
5 Terminals



DCU800



- 1 RS485 passive leaf
- 2 FREE



- 1 Slot DCU103
- 2 FREE

6 Safety sensor close and open

- ▶ For 2-leaf systems, connect the safety sensors of the active leaf to the active leaf control unit and those of the passive leaf to the passive leaf control unit.
- ▶ Fit the sensor for monitoring closing on the opposite hinge side of the door leaf.
If the SIS is activated during closing, the door reverses and opens again.
- ▶ Install the sensor for monitoring opening on the door leaf, hinge side.
If the SIO is activated during opening, the door stops.

On detection the sensor output is open (GND applied to SIS or SIO input).

- ▶ Check function and correct setting of the sensors during commissioning and service.
 - Operation of the display programme switch DPS see chapter 20.4 "Display programme switch DPS".
 - Operation of the service terminal ST220 see chapter 20.1 "Service terminal ST220".

The status of the drive to which the ST220 is connected is displayed.

- ▶ Press the $\leftarrow$ key.
- ▶ Select "Active leaf para" or "Passive leaf para" using the $\blacktriangle$ or $\blacktriangledown$ key and press the $\leftarrow$ key.
- ▶ In the Selection menu, use the key $\blacktriangle$ or $\blacktriangledown$ to select "Signals" and then press the $\leftarrow$ key.

For further settings see the descriptions below.

The wall blanking area of the SIO safety sensor is set automatically during the teach-in operation.

If required, it can be changed with DPS or ST220 via the service menu, with

- DPS: Set the parameter *Rb* to the desired wall blanking area (1° to 99°).
- ST220: Set "Input signals", "SIS – terminal SIO1", "SIS wall blanking range" to the desired value (1° to 99°).

6.1 Safety sensor GC 342/GC 342 +



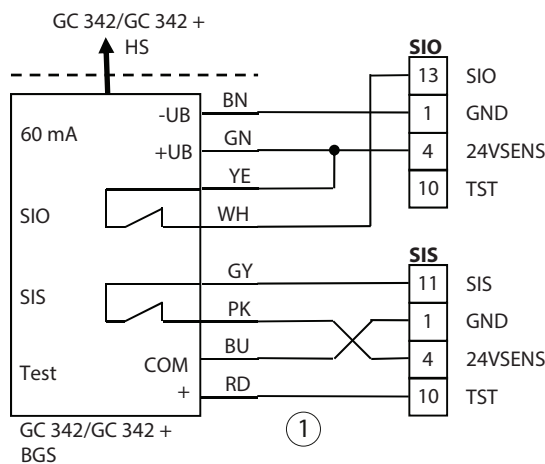
DIN 18650
EN 16005

- Safety sensor GC 342/GC 342 +
- Follow the installation instructions for GC 342/GC 342 +
- Accessories (optional):
 - Remote control, mat. no. 100061
 - For further accessories, see installation instructions GC 342/GC 342 +

Sensor position

- ▶ Install safety sensors on the door leaf as specified in the GC 342/GC 342 + installation instructions.
- ▶ Setting the testing parameter.
 - DPS: Set *EE* to *03* (testing with GND).
 - ST220: Set "Output signals", "Testing SI" to "Testing with GND".

6.1.1 Monitoring closing and opening



Settings GC 342/GC 342 +

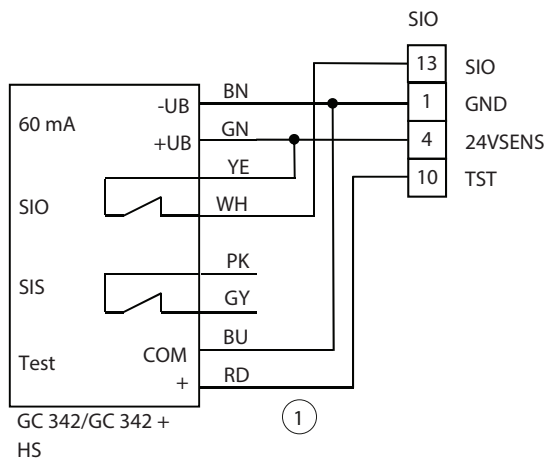


- See installation instructions GC 342/GC 342 +.
- GEZE recommends using the optional remote control to change the sensor parameters.

Settings DCU8

- ▶ Set the "Contact type" parameters:
 - DPS: Set **51** and **53** to **02** ("NC") (factory setting).
 - ST220: Set the "Input signals", "SI1 – terminal SIS", "SI1 contact type" to "normally closed contact" and "SI3 – terminal SIO", "SI3 contact type" to "normally closed contact" (factory setting).
- ▶ Set the "Function" parameters:
 - DPS: Set **F1** to the desired function and **F3** to **05** (SIO stop) or **06** (SIO stop SF GF).
 - ST220: Set the "Input signals", "SI1 – terminal SIS", "SI1 function" to the desired function and "SI3 – terminal SIO", "SI3 function" to "SIO stop" or "SIO stop SF GF".

6.1.2 Monitoring opening

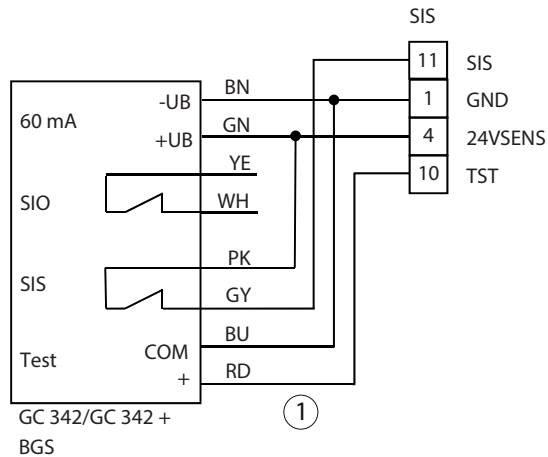


1 Door transmission cable

Settings DCU8

- ▶ Set the "Contact type" parameters:
 - DPS: Set **53** to **02** (normally closed contact) (factory setting).
 - ST220: Set the "Input signals", "SI3 – terminal SIO", "SI3 contact type" to "normally closed contact" (factory setting).
- ▶ Set the "Function" parameters:
 - DPS: Set **F3** to **05** (SIO stop) or **06** (SIO stop SF GF).
 - ST220: Set the "Input signals", "SI3 – terminal SIO", "SI3 function" to "SIO stop" or "SIO stop SF GF".

6.1.3 Monitoring closing



1 Door transmission cable

Settings DCU8

- ▶ Set the "Contact type" parameters:
 - DPS: Set **51** to **02** ("NC") (factory setting).
 - ST220: Set the "Input signals", "SI1 – terminal SIS", "SI1 contact type" to "normally closed contact" (factory setting).
- ▶ Set the "Function" parameters:
 - DPS: Set **F1** to the desired function.
 - ST220: Set the "Input signals", "SI1 – terminal SIS", "SI1 function" to the desired function.

7 Mechanical contact

- The KB input is only active in the AU mode of operation.
- For 2-leaf systems, the mechanical contact can be connected to the active leaf control or to the passive leaf control.
- When activated, the active leaf opens and, if switched on, the passive leaf opens.
- During activation, the output of the mechanical contact is closed, 24 V are applied at the KB input (normally open contact). Parameter settings as normally closed contact 0 V applied.

The status of the drive to which the ST220 is connected is displayed.

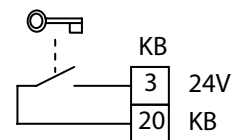
- ▶ Press the **↵** key.
- ▶ Select "Active leaf para" or "Passive leaf para" using the **▲** or **▼** key and press the **↵** key.

For further settings see the descriptions below:

- Set the "Contact type" parameters:
 - With DPS: Set **LB** to **01** (normally open contact) or to **02** (normally closed contact).
 - With ST220: Set the "Signals", "Input signals", "KB", "KB contact type" to "normally open contact" or "normally closed contact".

7.1 Key switch

- Set the parameter "Contact type" with
 - DPS: Set **LB** to **01** (factory setting).
 - ST220: Set the "Signals", "Input signals", "KB", "KB contact type" to "normally open contact" (factory setting).
- Key switch SCT, single-pole, flush-mounted installation, AS500 without Euro profile half cylinder, mat. no. 117996
- Accessories:
 - Euro profile half cylinder mat. no. 090176
 - Additional contact, mat. no. 024467



8 Push And Go



WARNING

Danger of injury due to crushing and shearing!

► During an activated Push And Go function door handles can form potential danger points.

- The function can only be used if the motor lock is unlocked or can be unlocked.
- The Push And Go function allows activation of the drive without contact sensors being used.
- When the Push And Go function is set, the drive opens the door automatically as soon as the door leaf is moved manually out of the closing position.
- The opening angle for using the opening automatic functions is adjustable (1°–20°).
- For convenient use, the opening time should not be set to the minimum value.



If the opening angle is too small, the door may open automatically.

When this function is used, the door must be marked in accordance with DIN 18650.

- Operation of the display programme switch DPS see chapter 20.4 "Display programme switch DPS".
- Operation of the service terminal ST220 see chapter 20.1 "Service terminal ST220".

The status of the drive to which the ST220 is connected is displayed.

► Press the $\leftarrow$ key.

► Select "Active leaf para" or "Passive leaf para" using the $\blacktriangle$ or $\blacktriangledown$ key and press the $\leftarrow$ key.

For further settings see the descriptions below:

▫ Set the parameters with:

- DPS: Set P_{u} to the desired opening range (1-20) to start the automatic opening function or set P_{u} to 00 to disable the function. Set H_{P} to the desired hold-open time with "Push And Go" (0 – 60 s).
- ST220: Use the keys $\blacktriangle$ or $\blacktriangledown$ or to set the "Movement parameters", "Push And Go" to the opening range (1-20) for activation of the opening automatic function, or set "Push And Go" to 0 to disable the function. Set the "Movement parameters", "Hold-open times", "Push And Go" to the desired hold-open time (0 – 60 s).

9 Configurable inputs

- Various special functions are assigned to the configurable inputs PE2 and PE3, see chapter 20 "Service menu". The contact type required for the desired function can be found in chapter 20.6 "DPS service menu and service buttons S1/S2 with LEDs" or chapter 20.3 "Service menu ST220".
- The configurable input PE1 is permanently assigned.
- The configurable inputs PE2 and PE3 are analogue inputs that are suitable for connecting normally open or normally closed contacts, as well as for connecting the analogue programme switch MPS, see chapter 13 "Mode of operation".
- For operation of the DPS display programme switch, see chapter 20.4 "Display programme switch DPS".
- For operation of the ST220 service terminal, see chapter 20.1 "Service terminal ST220".

The status of the drive to which the ST220 is connected is displayed.

► Press the $\leftarrow$ key.

► Select "Active leaf para" or "Passive leaf para" using the $\blacktriangle$ or $\blacktriangledown$ key and press the $\leftarrow$ key.

► Select "Signals", "Input signals" and press the $\leftarrow$ key.

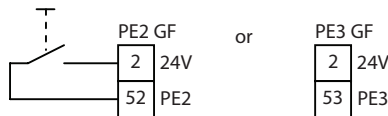
For further settings see the description below:

▫ Set the parameters with:

- DPS: Set E_2 or E_3 to the desired function.
- ST220: Set "PE2", "PE2 function" or "PE3", "PE3 function" to the desired function.

9.1 Sabotage

- The configurable input PE2 or PE3 can be used to connect an alarm contact, which can be used to monitor a closed (key switch) housing, for example. When the housing is closed, the contact is closed and 24 V is present at input PE2 or PE3. If the alarm contact opens, 0 V is present at input PE2 or PE3. In this case, the door remains closed and locked.
- If the contact is interrupted, KB is not analysed in the NA, LS, AU operating mode. All other functions remain the same. You must then acknowledge (delete error).
- Set the parameters with:
 - DPS: Set **E2** or **E3** to **05** (Sabotage).
 - ST220: Set "PE2 function" or "PE3 function" to "Sabotage NC".



9.2 Closing position active leaf

- Feedback from a door contact attached in the closing position, connected to PE2 or PE3.
- The door contact closes as soon as the door leaf has reached the closing position (active leaf).
- Set the parameters with:
 - DPS: Set **E2** or **E3** to **06** (closing position door closer GF).
 - ST220: Set "PE2 function" or "PE3 function" to "Closing position GF".

9.3 Emergency lock



WARNING

Danger of injury due to crushing and shearing!

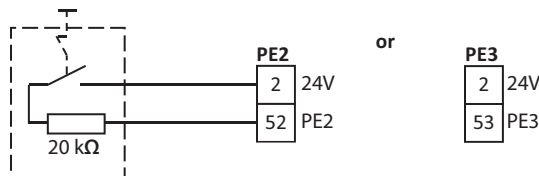
Safety sensors and obstructions are not analysed. The door closes with the set force.

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



Not permitted for rebated doors and escape routes.
Only the use of a configurable input is permitted.

- The configurable inputs PE2 and PE3 can be used to connect an emergency interlock switch.
- When the emergency lock switch is activated, the contact is closed and 17.83 V is applied to the input PE2 or PE3. Contact sensors KA, KI and KB, safety sensors SIS and SIO as well as obstruction detection are hidden. Permanent open operating mode is cancelled. The door closes and locks. The function requires a 20 kOhm terminating resistor for proper function.
- The door remains closed as long as the emergency lock signal is applied to the input.
- Set the parameters with:
 - DPS: Set **E2** or **E3** to **07** (emergency lock 20 kOhm).
 - ST220: Set "PE2 function" or "PE3 function" to "Emergency lock.20kOhm NO".



DIN 18650
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9.4 Switch functions

9.4.1 General points

- On activation, the output of the button is closed (24 V applied to the PE2 input).
- For double-leaf systems, the push button can be connected to the active leaf control or the passive leaf control.
- ▶ Set the hold-open time at the active leaf control.
- If the push-button is connected to the passive leaf control, both door leaves open when the push-button function is activated, even if the "single-leaf" operating mode is set. The "Automatic" operating mode must be set on the passive leaf.

9.4.2 Switch function

DPS

- ▶ Set **E2** to **10** for:

1st switch contact = open door / 2nd switch contact = close door.

If there is no second push-button contact, the door remains open until the operating mode is switched.

With a double-leaf operator, the opening is double-leaf if the push-button is connected to the SF operator.

ST220

- ▶ Set "PE2", "PE2 function" to "Push button NO" for:

1st switch contact = open door / 2nd switch contact = close door.

If there is no second switch contact, the door remains open until the mode of operation is changed.

9.4.3 Switch function OHZ



In the case of 2-leaf drives, the settings on the active leaf control determine the hold-open time.

DPS

- ▶ Set **E2** to **11** for:

1st switch contact = open door / 2nd switch contact = close door

If the SIO is triggered before the hold-open time or the 2nd switch contact is activated, the hold-open time runs out and is not cancelled by the 2nd switch contact.

After expiry of the hold-open period at the latest

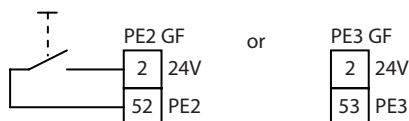
- **oH** with 2-leaf drive and 2-leaf operating mode, if push-button is connected to the SF drive.
- **oF** for 1-leaf drive or for 2-leaf drive and "reduced opening width" mode of operation, if the push button is connected to the GF-drive.

ST220

- ▶ Set "PE2", "PE2 function" to "Push button OHZ NO" for:

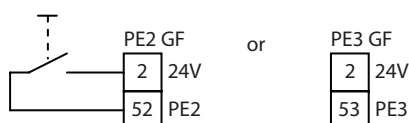
1st switch contact = open door / 2nd switch contact = close door

The door closes at the latest after the hold-open time has expired.



9.5 Control unit reset

- The control unit can be restarted via the configurable inputs. After pressing the button, the drive behaves in the same way as after switching on the mains voltage.
- Set the parameters with:
 - DPS: Set **E2** or **E3** to **13** (reset push button).
 - ST220: Set "PE2 function" or "PE3 function" to "Reset push button NO".



9.6 STOP

The configurable inputs PE2 and PE3 can be used to connect a stop button or safety edge. The inputs PE2 and PE3 can also be evaluated in the same way.

- When activated, the door leaf stops (both in the case of double-leaf systems) and remains stationary as long as the input is active.
- For double-leaf systems, the stop button can be connected to the active leaf control or to the passive leaf control.
- For operation of the DPS display programme switch, see chapter 20.4 "Display programme switch DPS".
- For operation of the ST220 service terminal, see chapter 20.1 "Service terminal ST220".

The status of the drive to which the ST220 is connected is displayed.

▶ Press the $\leftarrow$ key.

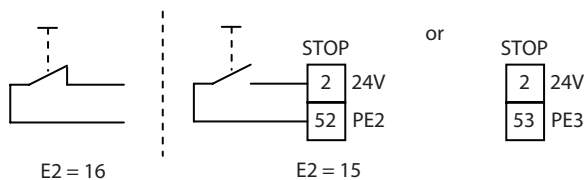
▶ Select "Active leaf para" or "Passive leaf para" using the $\blacktriangle$ or $\blacktriangledown$ key and press the $\leftarrow$ key.

For further settings see the description below:

For PE2, PE3:

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

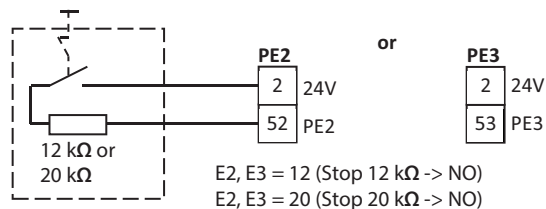
- Set the "Contact type" parameters with:
 - DPS: Set $E2$ or $E3$ to 15 (normally open contact, not monitored) or to 16 (normally closed contact, not monitored).
 - ST220: Set "Signals", "Input signals", "PE2 function" or "PE3 function" to "Stop normally closed contact" or "Stop normally open contact".



For PE2 or PE3:

DIN 18650
EN 16005

- For personal protection in accordance with DIN 18650 / EN 16005, a terminating resistor 12 k or 20 k must be set to monitor the input. The terminating resistor must be connected directly to the switch contact.
- Set the "Contact type" parameters with:
 - DPS: Set $E2$ or $E3$ to 12 or 20 .
 - ST220: Set "Signals", "Input signals", "PE2" or "PE3", "PE2 function" or "PE3 function" to "Stop 12 kOhm" or "Stop 20 kOhm".



9.7 Closing position detection

9.7.1 Closing position door leaf (active leaf drive)

Feedback from a door contact fitted in the closed position, connected to PE2 or PE3 of the control unit. The door contact closes once the door leaf associated with the drive has reached the closed position.

Set the parameters with

- DPS: Set $E2$ or $E3$ to 06 (closing position GF).
- ST220: Set "PE2 function" or "PE3 function" to "Closing position GF".

9.8 1-leaf Open

- The passive leaf must be switched on.
- On activation, the output of the activation device is closed (24 V applied to the PE2 input).
- With 2-leaf systems the activation device must be connected to the active leaf control. Set the hold-open time on the active leaf control.
(In the case of 2-leaf drives, the settings on the active leaf control determine the hold-open time)

DPS

- ▶ Set $E2$ to 23 .

With a 2-leaf drive, the opening is single-leaf if the control element is connected to the active leaf control.

- ▶ Set ar on the active leaf control.

ST220

"PE2", "PE2 function"

- ▶ Set to 'Open 1-leaf' for control element on active leaf.

The door closes at the latest after the hold-open time has expired.

- ▶ Set hold-open times 1-leaf (winter) on the active leaf control.

10 Outputs

10.1 Output PA1

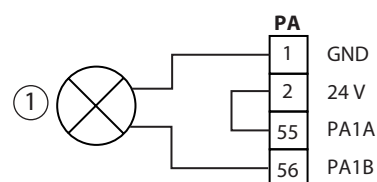
PA1 is a potential-free relay contact, switching voltage max. 24 V AC/DC, current 0.5 A.

10.1.1 Wind alarm

The output is switched if wind load is activated at PE1.

The parameter is permanently set.

- 1 Light



10.2 Output PA2

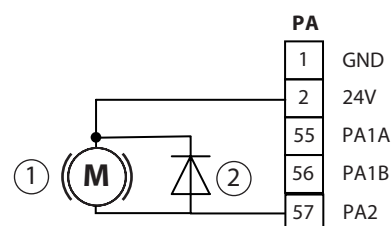
PA2 is a transistor output, switching voltage/current max. 24 V DC / 0.5 A.

10.2.1 Motor gear unit brake

The output is switched if wind load is activated at PE1.

The parameter is permanently set.

- 1 Motor gear unit brake
- 2 Free-wheeling diode



11 Electric strike

- ▶ Connect the electric strike of the active leaf to the active leaf control and the electric strike of the passive leaf to the passive leaf control.
- Potential-free relay contact, switching voltage/current max. 24 V AC/DC, 1 A.
- Use an electric strike with a duty rating of ED 100.
- For operation of the DPS display programme switch, see chapter 20.4 "Display programme switch DPS".
- or operation of the ST220 service terminal, see chapter 20.1 "Service terminal ST220".

The status of the drive to which the ST220 is connected is displayed.

- ▶ Press the ↵ key.
- ▶ Select "Active leaf para" or "Passive leaf para" using the ▲ or ▼ key and press the ↵ key.

For further settings see the descriptions below:

- Set the parameter electric strike type with:
 - DPS: Set $\mathbb{E} \mathbb{A}$ to the desired electric strike type, see chapter 20.6 "DPS service menu and service buttons S1/S2 with LEDs".
 - ST220: Set the "Door parameters", "Electric strike type" to the desired type, see chapter 20.3 "Service menu ST220".
- Holding magnet MA 500 with counterplate, mat. no. 024740, for the magnetic locking of emergency exit doors.
- Motor lock with panic function GEZE IQ Lock EL for 1-leaf doors.
The GEZE IQ Lock EL is a self-locking anti-panic motor lock with external control.
See wiring diagram for motor lock IQ Lock EL.

IQ Lock SecuLogic set

(Motor lock PZ-bored, complete, incl. flat face plate and strike plate, motor lock control, power supply cable for control, reed switch contact as well as open drip loop)

- When a motor lock without bolt message is used, the parameters "Opening delay day" (time in which the motor lock can unlock before the drive opens the door; only applies in the automatic and exit only modes of operation) or "Opening delay night" (time during which the motor lock can unlock before the drive opens the door; only applicable in the night mode of operation) are set to give the motor lock time to unlock.
- Set parameter $\mathbb{d} \mathbb{L}$ for delayed opening day or $\mathbb{d} \mathbb{N}$ for delayed opening night mode with:
 - DPS: Set $\mathbb{d} \mathbb{L}$ to the required time (0 s ... 9 s).
 - ST220: Set "Door parameters", "Opening delay day" or "Opening delay night" to the required time.

The electric strike signal is activated up to the entire opening position and over the hold-open time. After the hold-open time has expired and of the door has closed by approx. 10°, the electric strike signal is deactivated.

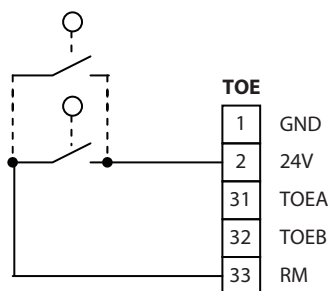
11.1 Bolt message



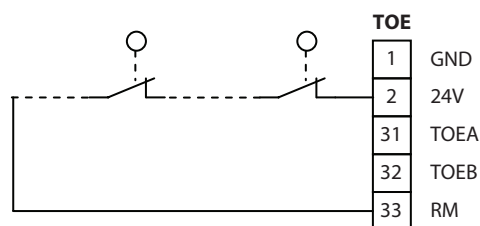
If active, DPS switches to night mode.

An operating mode LED on the drive indicates the operating mode (e.g. automatic operating mode in green).

- Input RM blocks control of the drive when the door is locked. If the Input RM becomes active while the door is open, the door reverses and remains open.
- When connecting an additional electric strike with
 - Normally open contact: Circuit the contacts in parallel.
 - Normally closed contact: Switch the contacts in parallel.
- Set the parameters with:
 - DPS: Set $\mathbb{r} \mathbb{M}$ to $\mathbb{O} \mathbb{1}$ (normally open contact) or $\mathbb{O} \mathbb{2}$ (normally closed contact).
 - ST220: Set the "Signals", "Input signals", "Bolt contact type", "Bolt contact type" to "normally open contact" or "normally closed contact".
- When the bolt feedback signal is pending, the drive remains in the set mode of operation, but the DPS switches its own state to "night mode".



Normally open contact



normally closed contact

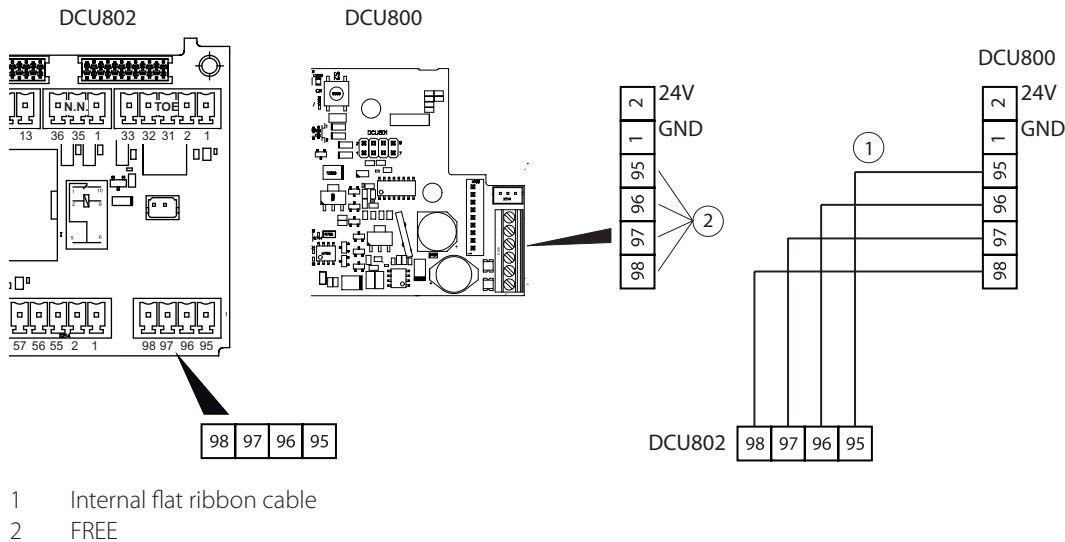
11.2 Activation delay for lock switch contact

If a lock switch contact is used and “no electric strike” or “not used” is selected, the drive opens the door after valid activation only after 2.5 s if a change from “locked” to “not locked” has taken place.

12 Free line connections

Up to 4 signals can be transmitted via the ribbon cable between the DCU802 connection board and the DCU800 control board using the free cable connections. This is useful if devices are installed in the add-on or intermediate bonnet, for example, and need to be connected to the connection board.

- Max. signal voltage: 30 V AC/DC
- Max. signal current: 0.3 A



13 Mode of operation



The modes of operation are described in the Axira user manual.

- For operation of the DPS display programme switch, see chapter 20.4 “Display programme switch DPS”.
- For operation of the ST220 service terminal, see chapter 20.1 “Service terminal ST220”.
- Setting and operation via
 - Service buttons
 - Mode of operation key

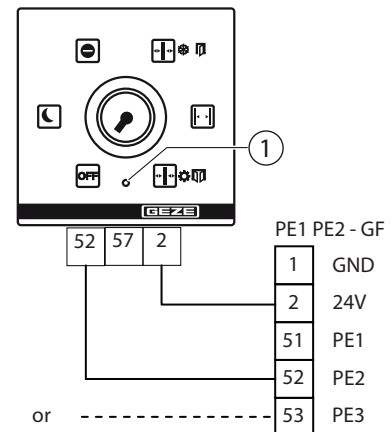
The status of the drive to which the ST220 is connected is displayed.

- ▶ Press the ↵ key.
 - ▶ Select “Active leaf para” or “Passive leaf para” using the ▲ or ▼ key and press the ↵ key.
- For further settings, see the descriptions below.

13.1 Programme switches

Mechanical programme switch (MPS)

- Connection to PE2 or PE3
- MPS, AS500, mat. no.113226
MPS-ST, with key, AS500, mat. no. 113227
- Modes of operation
OFF, AU 1-leaf, AU 2-leaf
- Follow the installation instructions
- Accessories:
Surface mounting cap, single, AS500, mat. no. 120503
- In 2-leaf systems, the MPS is connected to the active leaf.
- If the MPS is used, it is not possible to change the mode of operation with DPS or via the input AU.
- Set the parameters of the control to which the MPS is connected, with:
 - DPS: Set **E2** or **E3** to **01** (MPS).
 - ST220: Set "Signals", "Input signals", "PE2", "PE2 function" or "PE3", "PE3 function" to "MPS" and "Signals".



- 1 In the event of an error and when maintenance is due, the LED on the MPS lights up
MPS flashes when maintenance is due

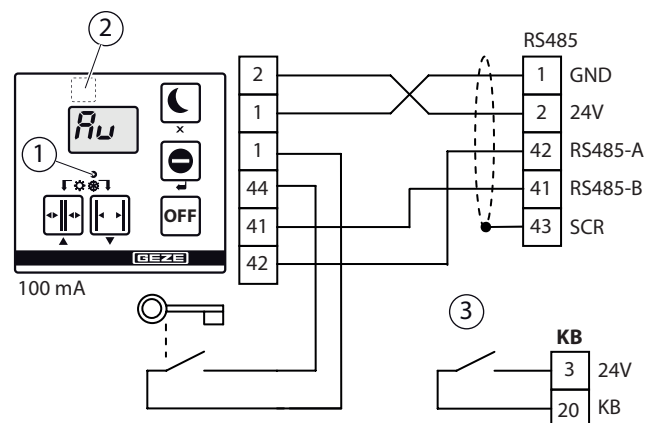
Display programme switch (DPS) with OFF

- AS500, DPS with OFF, UP, alpine white, mat. no. 151524
- Operating Modes: OFF, AU, 1-leaf/ 2-leaf opening



- ▶ Follow the installation instructions.

- DPS cannot be connected if the PE2 or PE3 function is set to "MPS" (only display possible).
- ▶ Connect DPS to the active leaf.
- Changing the operating mode with the DPS is only possible if 24 V is not applied to NA, LS, AU, DO or to PE2 or PE3, if PE2 or PE3 is configured to OFF, 2-leaf opening or 1-leaf opening. After the power returns, the drive is in the operating mode that was previously set.
- It is possible to change the operating mode if the key switch is active or with bridge 1-44.
- Switching over between 1-leaf and 2-leaf operation:
 - ▶ Press the ▲ ▼ keys simultaneously.



- 1 Display 1-leaf/2-leaf operation (LED lights up with 1-leaf operation)
2 Hidden service push button
3 Additional contact in the key switch for activating KB



- Operation at the DPS is not possible during the self-test, e.g. after changing the operating mode.

The control can be configured using DPS.

Accessing the service menu:

- ▶ Press the concealed service button and ↵ simultaneously.

Accessories:

- AS500, DPS with OFF and SCT, without Euro profile half cylinder, flush-mounted, alpine white, mat. no. 155810
- Key switch SCT, single-pole, flush-mounted installation, AS500 without Euro profile half cylinder, mat. no. 117996
- Euro profile half cylinder mat. no. 090176
- Additional contact, mat. no. 024467
- Surface-mounted cap, single, AS500, mat. no. 120503
- Surface-mounted cap, double, AS500, mat. no. 128609

Blocking or releasing DPS operation

- Locking operation with key switch

Operation of the DPS can be locked/enabled by connecting a key switch to prevent unauthorised persons from switching the operating mode.

Operation is possible when the key switch is pressed.

- Locking operation by assigning a password

The operation of the DPS can be protected by a password in the service menu to prevent unauthorised persons from switching the operating mode.

The password can only be set and changed with the ST220 service terminal via the service menu.

The password for operating the DPS has 2 digits (0 ... 9).

Factory setting: 00 = released

- Changing the operating mode when password protection is set



Instead of entering the password, the operating mode switchover can also be enabled by pressing the key switch.

The number of times the key is pressed corresponds to the digit to be entered.

- ▶ Enter the first digit using key ▲.
- ▶ Enter the second digit using key ▼.

Example: The password is 37.

- ▶ Press the ▲ key 3 times.
- ▶ Press the ▼ key 7 times.

- Permanent release of programme switch operation

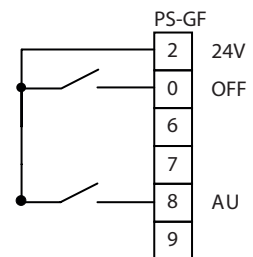
- ▶ For permanent release, attach a jumper between terminals 1-44 of the DPS.

– and –

- ▶ Set the password in the service menu to '00' (factory setting).

13.2 Operating mode setting with buttons or switches

- The operating mode can be set using buttons or switches (e.g. timer).
- The buttons or switches are connected to the control unit of the active leaf.
- The control switches to the desired mode if 24 V is applied to the corresponding input and remains in this mode of operation. A pulse signal is sufficient.
- Operation on the DPS is only possible if there is no signal at the OFF, NA, LS, AU and DO inputs.
- Set the parameter Contact type (if changed), with
 - DPS: Setting not possible
 - ST220: Set the "Signals", "Input signals", "NA", "Contact type" to "NO". The same applies for the contact type for "LS", "AU", "OFF" and "DO" (factory settings)



13.2.1 Changing the operating mode using the service LEDs

The service LEDs are used

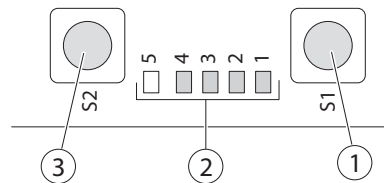
- to indicate system signals,
- to indicate and change drive parameters,
- to start the production test.

During normal operation the LEDs indicate the current mode of operation.

The mode of operation can be changed using keys S1 and S2.

S1 = previous mode of operation S2 = next mode of operation

- 1 Service button S1
- 2 Service LEDs
- 3 Service button S2

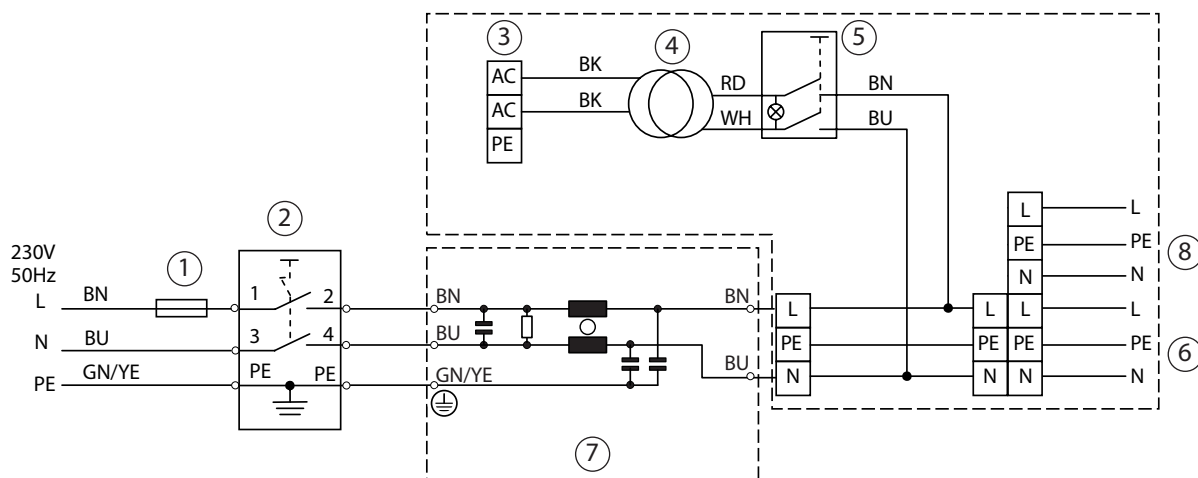


Mode of operation	LED				
	5 *	4	3	2	1
OFF	○	○	○	○	●
Automatic	○	●	○	○	○

- LED off
- LED on

14 Mains connection

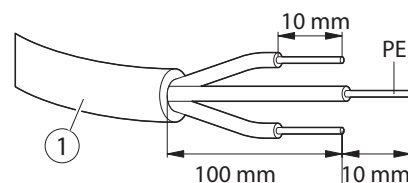
Transom installation



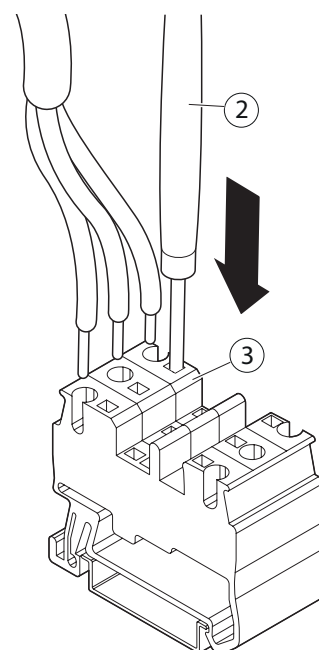
- | | | | |
|---|------------------------|---|---|
| 1 | Mains fuse | 6 | To the second drive |
| 2 | Main switch (optional) | 7 | Line filter |
| 3 | Control AC IN | 8 | 230 V 50 Hz additional device, max. 700 W |
| 4 | Transformer | | |
| 5 | Main switch, internal | | |

14.2.1 Connecting to the mains

- Strip the mains cable (1).
 - Sheath length = 100 mm
 - Stripping length = 10 mm
 - PE conductor lead = 10 mm



- Insert a screwdriver (2) into the activation shaft of the respective terminal (3).
- Push core into the terminal (3).
- Remove screwdriver (2) and connect the next core.



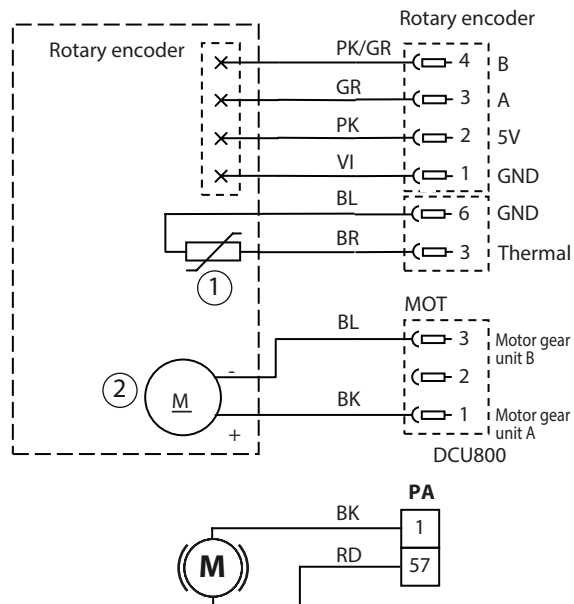
15 Motor gear unit



WARNING

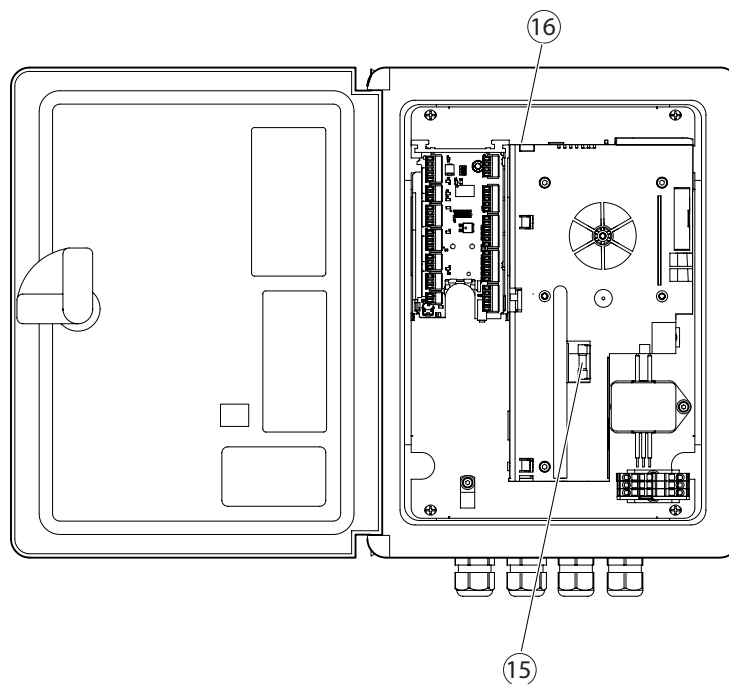
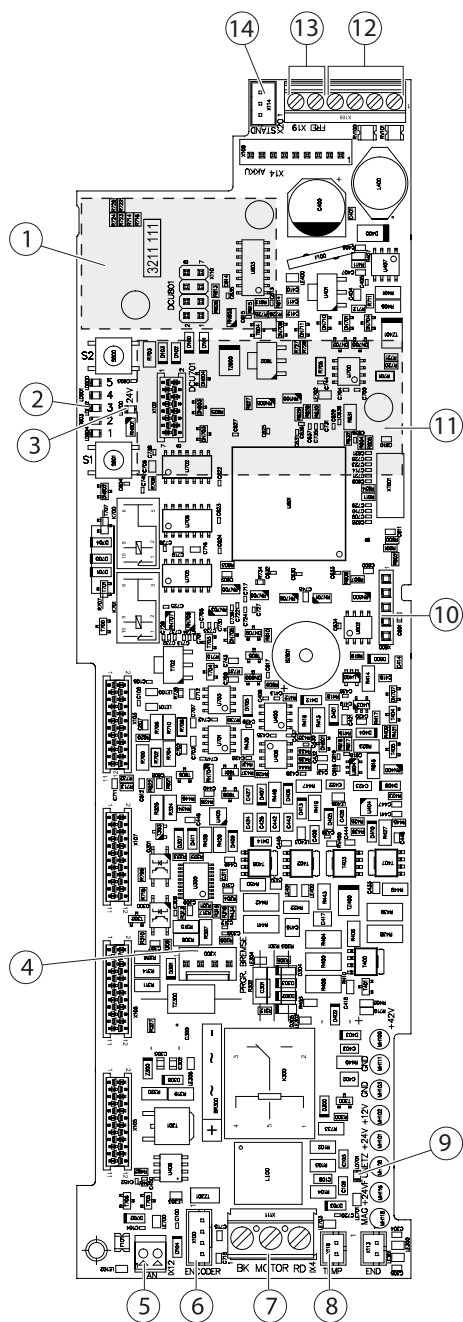
Danger of injury from hot motor gear unit!

- Disconnect motor gear unit from the control only if spring is relaxed.



- 1 Temperature sensor
- 2 Motor gear unit

16 Control unit



- 1 Slot for F-board DCU801
- 2 Service buttons and service LEDs
- 3 LED 24V ext
- 4 Brake
- 5 Ventilator
- 6 Rotary encoder
- 7 Motor gear unit
- 8 Temperature sensor

- 9 LED solenoid valve
- 10 PROG
- 11 Slot for radio board WRB-5
- 12 FREE
- 13 24 V
- 14 RS485
- 15 Safety fuse F1, AC IN (10 A T, 5 × 10 mm)
- 16 Main switch

17 Commissioning and service

Commissioning and servicing can be carried out using the DPS display programme switch, the ST220 service terminal or the internal service buttons.

17.1 Commissioning

17.1.1 Pre-conditions

- Drive
 - attached
 - untaught
 - set to factory setting
- Electrical installation is complete.
- During commissioning the DPS displays "LE" and the operating modes LED is yellow.
- During new teach-in of drive: both drives to automatic mode of operation.
- The motorised lock must be bypassed and permanently unlocked.

17.1.2 Carrying out commissioning

- ▶ Check whether the drive works mechanically when de-energised (check by hand).
- ▶ Switch the main switch on.
- ▶ Set the peripheral equipment before the teaching run.
- ▶ Perform the teaching run as described in chapter 17.2 "Teaching run".
The safety sensor is active because the wall blanking function is being learnt.
- ▶ Check the functionality of the safety sensors.
- ▶ Check other functionality.
- ▶ The set static and dynamic forces must be calibrated.

Optional:

The braking effect in the disconnected state can be set for different door weights. See chapter 18, "De-energised operation".

17.2 Teaching run

- For the teaching run to be carried out, the drive must be completely installed and supplied with voltage.
- If "Start teaching" is started using the parameter menu (DPS, ST220, service buttons), the user has 1 minute to start the teaching process.
 - If the door is not moved within this time, the drive cancels the teaching run and retains the data previously stored.
- On delivery, the safety sensors are actively configured.
- The teaching run starts and ends in the closed position so that the drive learns the opening/closing direction correctly.

The following points must be observed:

- During the movement (part of the teaching process), activating the safety sensors does not stop the door leaf. For this reason, only carry out a movement run under supervision or with the assistance of an authorised person.
- If the door leaf is blocked during the movement run, this leads to error message 25 and the teach-in run must be repeated.

If a 2-leaf system has to be taught, the parameter "Number of leaves" (EF) must first be installed on both drives:

- ▶ Select the parameter with service terminal ST220 or the display programme switch DPS and set the value 02 for active leaf and the value 03 for passive leaf.
- ▶ Connect both drives.

The drive differentiates between two conditions:

- The drive is in factory setting (as delivered) → untaught
- Drive is re-learned

17.3 Teaching a 1-leaf system

step	Actions	ST220 display	DPS display	Service LED display (5 → 1)
1	▶ Select parameter "Start teaching" and press the ENTER key. ▶ Select 1-leaf system.	Start teaching		
1	▶ Start the respective teaching in DPS (NT): ▫ LE for 1-leaf system.		LE	
1	▶ Exit display.			○ ● ● ● ●
2	A beep is sounded (1 × 0.5 s).			
3a	The drive is as delivered or has been set to the factory setting. The following system parameters are displayed in succession:			
	▶ Set system parameter for the present project. i ▶ When teaching using the service interface, the parameters must be set before the teaching begins, see chapter 20.5 "Service buttons S1 and S2". ▫ Testing: ▫ GND for GC 342/GC 342 +	Type of installation Leaf width Door weight Safety sensor close Safety sensor open	OH F8 t6 S1 S3	
		Testing Bolt message contact type	tE rr	
3b	If the teaching is carried out again, the parameter menu 3a is no longer displayed.			
4	▶ Open door leaf manually up to the desired opening position. The drive emits an acoustic warning signal to indicate the maximum drive-related open positions. The interruption of the warning signal becomes shorter and shorter until the maximum open position is reached. ! ▫ If the beep sounds continuously, the door leaf is in the max. open position range ($\pm 3^\circ$). ▫ In this setting, there is a possibility that the drive does not work properly or is permanently damaged. ▶ Carry out the teaching run again to avoid this.	Open manually	L1	● ○ ○ ○ ●
5	▶ Move the door leaf by hand to the desired closing position. ▶ Press the enter key. The display is acknowledged.	Close manually	L2	● ○ ○ ● ○
6	Continue with point 7.			
7	▶ Press the enter key. The display is acknowledged.	Press "Teach in"	L3	● ○ ○ ● ●
8	The movement run starts automatically after 2 s. ▫ Wall blanking is taught. ▫ In this run, sensors are not switched as "active". ▫ An obstruction is not identified. ▫ If a blockage is detected within the movement run, fault 25 is set. The teaching run must then be repeated.	Movement run	L4	● ○ ● ○ ○
9	When the door leaf arrives in the closing position at the end of the movement run, a beep (2 × 0.5 s) is sounded.			
10	The teach-in run is complete, display depends on the peripheral device.	The main menu is displayed	The main menu is displayed	The operating mode is displayed

17.4 Forces and speeds

17.4.1 Forces

The forces set using "Opening force" (FO), "Opening retention force" (OF), "Closing retention force" (CF), "Force closing position" (FS) or "Closing force" (FC) always refer to N at the main closing edge.

- For the ST220, the values correspond directly to the main closing edge.
- For the DPS (with OFF), the values correspond to $\times 10$ N at the main closing edge.

In addition, the parameter "Obstruction" (*bh*) affects the force ("Opening force" and "Closing force") within the movement. Depending on the mass and the desired speed of the door, a higher value may be required for the obstruction parameter. This has a direct impact on manual opening, see chapter 19 "Resilience to load due to external influences or wind pressure".

17.4.2 Speeds

The speeds "Opening time" (*o t*), "Closing time" (*c t*) and "Closing time manual" (*55*) are always calculated for an opening angle of 90°.

This means:

- If the opening angle has been taught less than 90°, the movement time is faster than the setting value.
- If the opening angle has been taught more than 90°, the movement time for the complete movement angle is higher than the set value.
 - The drive continues to move at the speed past 90° to the opening position.



Exception:

The value "Latching action closing" (SC) is not a real value. It does not correspond to a unit.

18 De-energised operation

The doors can be manually opened even when in switched-off or de-energised mode. The motor lock must be unlocked for this. The maximum speed in the closing and opening direction can be set using the parameters.



If a fire alarm has been triggered (fault 07), the braking force cannot be set.

- DPS: *82* 01 ... 14.

- ST220: Set "Movement parameters", "Speeds", "Braking force" to the desired braking force (01 ... 14).

The value for the 'Braking force' parameter must be set in the energised state after completion of the teach-in process.

Here, 01 is the lowest braking force (high speed) and 14 is the highest braking force (slow speed).

After first teaching, the value is automatically set to 13.

19 Resilience to load due to external influences or wind pressure

On exposed exterior doors with a high wind load or doors exposed to overpressure, the drive can be set using the parameters "Force opening, FO", "Force closing, FC" and "Obstruction, *bh*" in such a way that it responds perfectly to external influences. The drive pushes against the external influences with the set force and for the set time (parameter "Obstruction, *bh*").

The higher the set value, the more resilient the drive is against wind pressure, for example, ensuring reliable opening and closing. Manual opening is then no longer as convenient.

At low set values, the door is easier to use in manual opening. However, this also reduces the resilience against wind pressure, for example.

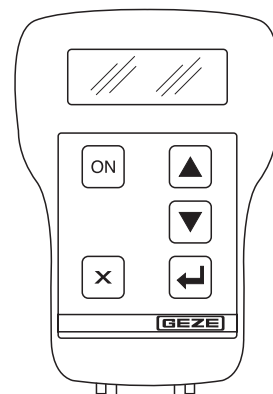
20 Service menu

20.1 Service terminal ST220

- Service terminal ST220, mat. no. 087261
- The drive can be commissioned with the ST220 service terminal, software version V2.1 or higher.
- Connection either via 5-pin plug-type connector RS485 or using 3.5 mm TRS connector (with adapter cable mat. no. 157266)

20.1.1 ST220 operation

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 cancelled by pressing the x key. The input position then changes back to the first menu position or one menu level back.
	▫ Select ▫ Update display ▫ Accept new value



Entering values in service terminal ST220

- ▶ Change value using ▲ or ▼.
- ▶ Confirm using ↵.
- ▶ Abort using x if necessary.

Display directly after connection

```

GEZE
Service terminal
2.1
XXXXXYWWJJZZZZZV

```

Software version ST220 V2.1
Serial number ST220

20.1.2 Service mode ST220

- The change to service mode occurs when the service terminal is connected to DCU8.
- 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 when teaching is activated).
- From software version 1.8 upwards, the hardware version is recognised. If there is no correlation after "D1" or "F1" the drive changes to safety switch-off and sets the fault "Wrong HW/SW combination" error.

Display after connection to the door controller

```

Axira P1.0 F0
DCU800
Automatic
Closed

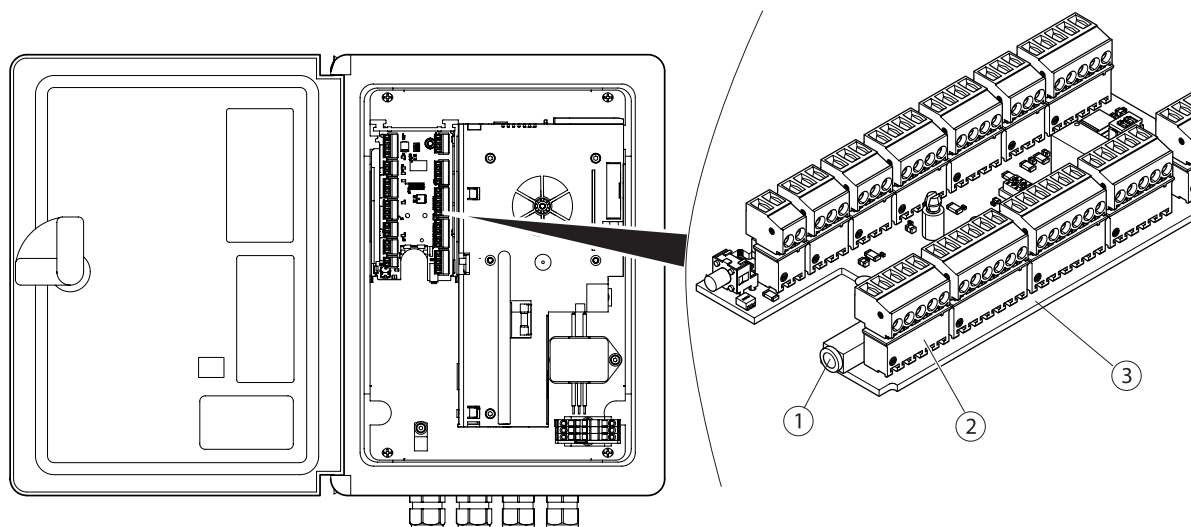
```

Drive type
Basic board DCU800
Mode of operation
Door mode

Software version 1.0, hardware version F0

20.2 Connecting the ST220 service terminal

Service terminal ST220 is connected to connection board DCU802 (3) using the socket for the 3.5 mm TRS connector (1) or alternatively at the connector plug for DPS (2).



20.3 Service menu ST220



See chapter 20.6 "DPS service menu and service buttons S1/S2 with LEDs" for explanations of the individual parameters.

20.3.1 Parameter setting for a 2-leaf drive

Selection of active leaf/passive leaf parameter setting

Start GF or SF?
Active leaf Para*
Passive leaf Para

Selection of the parameter setting GF or SF
Setting of active leaf parameter setting
Setting of passive leaf parameter setting

20.3.2 Main menu

A 4-digit password must be entered before the main menu can be accessed:

Password



Only possible if the menu is password-protected.

Designation	Reference
Mode of operation	see section 20.3.3
Door parameters	see section 20.3.4
Movement parameters	see section 20.3.5
Signals	see section 20.3.6
Diagnosis	see section 20.3.7
Standard values	see section 20.3.8
Reset DCU8	see section 20.3.9
Start teaching	see section 20.3.10
Factory setting	see section 20.3.11
Delete maintenance	see section 20.3.12
Password	see section 20.3.13
Language	see section 20.3.14

20.3.3 Mode of operation

Designation	Setting values	Explanation
Mode of operation *	Off Automatic	Operating mode setting
Opening type	1-leaf opening	Only open active leaf.
Open door	Open door	Press the ▲ key Control the door using ST220.

20.3.4 Door parameters

Designation	1st Sub-menu	2nd Sub-menu	Explanation
Number of leaves	1-leaf drive 2-leaf active 2-leaf passive		The parameters are used to set the leaf on which the drive is installed.
Leaf width	Value: 11 x10cm Min 7 x 10 cm Max 21 x 10 cm		
Door weight	Value: 100 kg		The door weight influences the safe speed.
Control unit type	DCU8		Display only
Type of installation	Pivot		
Basic function	Auto mode	Auto mode	
Drive ser. no.	000000000000		Entry of the Serial Number
Maintenance	after operating time by cycles	after operating time Value 12 months min 0 months max 99 months by cycles Value 500,000 min 0 max 3,000,000	The cycle counter is incremented by one: - every time the opening position is reached after automatic activation - every time the standstill position is reached after manual opening if the drive would like to close afterwards.
Electric strike type	No electric strike Fail-secure Fail-safe Motor lock Working-close pressure Static close pressure Motor-close pressure		Electric strike type, operator has no closing force before opening. Drive has closing force before opening.
Opening delay Day	Value: 0 s *0.1 min 0 s *0.1 max 90 s *0.1		Delayed opening day: Time before the drive opens the door. Only applicable in the automatic and exit only modes of operation.
Opening delay Night mode	Value: 0 s *0.1 min 0 s *0.1 max 90 s *0.1		Delayed opening night mode: Time before the drive opens the door. Only applies in night mode.
ECO mode	not active Active		The 24 V supply to terminal 4 is switched off in the DO, NA and OFF modes of operation. Note: Activation via access control of KB in the event of NA, as well as closing the door when switching from DO to AU, requires a few seconds, as the system first has to boot up.

Designation	1st Sub-menu	2nd Sub-menu	Explanation
GEZE bus address	Value: 0 value		For DCU103
	min 0 value		
	max 99 value		

20.3.5 Movement parameters

Designation	1st Sub-menu	2nd Sub-menu	Explanation
Speeds	Opening time	Value: 10 s	Opening time*) with automatic opening.
		min 10 s	
		max 20 s	
	Closing time	Value: 10 s	Closing time*) as per automatic/manual opening.
		min 10 s	
		max 20 s	
	Manual closing time	Value: 10 s	Closing time after manual opening or after automatic opening with set automatic door closing mode.
		min 10 s	
		max 20 s	
	Closing latching action	Value: 0	Sets the speed at which the drive moves to the closing position shortly before closing. This is required, for example, for operation with a motor lock. Latching action also applies for manual passage.
		min 0	
		max 50	
	Move towards open	Off	In the event of further opening attempts, the drive stops before the obstacle in the opening range.
		Imped Motor On	
		Imped Motor Off	
	Door opening	no	For doors without external loads, such as wind or pressure, the "Free swing function" parameter can be activated in order to enable optimum passage of the door.
		yes	
	Braking force	Value: 13 Value	Braking force during closing via spring action following power failure or fire alarm.
		min 1	
		max 14	
Forces	Opening force	Value: 150 N	Open static force at the main closing edge.
		min 10 N	
		max. 250 N	
	Closing force	Value: 150 N	Closing static force at the main closing edge.
		min 10 N	
		max. 250 N	
	Obstruction	Value: 3 0.1 s	Time for which the drive pushes against an obstacle with the set static force.
		min 1 0.1 s	
		max 20 0,1 s	
	Opening retention force	Value: 00 N	Constant force at the main closing edge in open position.
		min 00 N	
		value 70 N	
	Closing retention force	Value: 00 N	Constant force at the main closing edge in closed position.
		min 00 N	
		value 70 N	

*) the values for opening time and closing time refer to an opening angle of 90°.

Designation	1st Sub-menu	2nd Sub-menu	Explanation
	Closing position force	Value: 00 N min 00 N max 150 N	Force acts after the end of the latching action in the closed position. Manual opening is more difficult during the set time. The greater the force set, the longer the duration. Examples: for 10 N=0.5 s, for 150 N = 2 s
	Door closing torque	Value: 0 Nm min 0 Nm max. 70 Nm	Door closing torque after manual opening. <u>DIN 18650</u> <u>EN 16005</u> 0 ... 40: ~~DIN 18650~~ ~~EN 16005~~ 41 ... 70: or safety sensors necessary.
Hold-open times	Push and Go	Value: 1 s min 0 s max 60 s	Hold-open time during passage with Push and Go.
	Manually	Value: 1 s min 0 s max 70 s no	Hold-open time for manual opening. "No" corresponds to an unlimited hold-open time, no automatic closing.
	1-leaf (Winter)	Value: 1 s min 0 s max 60 s	With activation KI, KA 1-leaf drive (AU-Wi, AU-So) 2-leaf opening (AU-So) Setting on GF control.
	Authorised contact	Value: 1 s min 0 s max 60 s	With activation through KB.
	Close delay GF	-> EN16005/DIN18650 min 0 s	~~DIN 18650~~ ~~EN 16005~~ 0 s: both leaves close simultaneously. 01 ... 15 s: The active leaf closes some time after the passive leaf.
		max 16 s	<u>DIN 18650</u> <u>EN 16005</u> 16 s: Active leaf does not close until after the passive leaf has closed completely.
	Dyn extension	no yes	When activated, the passage frequency is taken into account in the hold-open time. The door does not close as fast when passage requirements are increased.
Reversal	Manual rev. closing	not active Active	Reversing in case of obstruction during closing after manual opening.
	Auto rev. closing	not active Active	Reversing in case of obstruction during closing after automatic opening.
Servo duration		Value: 0 s	Adjustable duration of power assistance during servo operation.
		min 0 s	
		max 20 s	

Designation	1st Sub-menu	2nd Sub-menu	Explanation
Additional servo torque		Value: 0 Nm min 0 Nm max 50 Nm	Adjustable torque of force support for manual opening (limited in time through "servo duration").
Back check		Value: 50 % min 10 % max 80 %	Application of the back check, referenced to maximum opening range (manual opening).
Setting opening width		Value: 0 degrees min -27 degrees max 27 degrees	The value is only for fine adjustment. The value is taught during the teaching run and then corresponds to point 0. This allows it to be adjusted manually and, again, subsequently corresponds to point 0. The opening value can thus be manually adjusted step-by-step. Is not set in the factory setting. The value 27 corresponds to 3 degrees door opening width.
Reversing limit		Value: 30 *0.1 degrees min. 0 *0.1 degrees max 90 *0.1 degrees	Angle on the drive axle to fine-tune the tolerance in the closing position from which the drive attempts to close again. ► Set the value so that the door gap is as small as possible before the drive closes again.
Door closer mode		Manually Automatic	Manual: Door only closes after manual opening with set door closing torque, otherwise speed regulated. Automatic: Door always closes with set door closing torque, no matter which type of activation.
Manual interference		Value: 0 value min. 0 value max 10 value	Provides the option of manually intervening in the movement of the door from the SIO side during automatic closing. When active, the door can then be manually reopened. 0: = off, 1: = easy, 10: = difficult

20.3.6 Signals

Designation	1st Sub-menu	2nd Sub-menu	3rd Sub-menu	Explanation
Input signals	SI1 - Terminal SIS	Current state	SI1 - Terminal SIS Z->not active K->NC contact F->SIS rev	
		SI1 contact type	Not used Normally closed contact Frequency	Parameter sets the use of the safety sensor close contact type.
		SIS function	SIS rev	If the safety sensor close triggers, the door reverses.
		SIS manual	not active Active	Safety sensor close active/ not active during closing after manual opening in door closer mode.
	SI3 - terminal SIO	Current state	SI3 - terminal SIO Z->not active K->NC contact F->SIO stop	
		SI3 Contact type	not used Normally closed contact Frequency	Parameter sets the use of the safety sensor open contact type.
		SI3 function	SIO stop	If the safety sensor open triggers, only the drive on the detected door leaf stops.
			SIO stop SF GF	If the behaviour should be the same for active leaf and passive leaf, both drives must be set to SIO stop SF GF. If the safety sensor open triggers, both active leaf and passive leaf drives stop.
		SI3 Wall blanking	Value: 0 % min. 0 % max. 99 %	0 %: No wall blanking. The range of application for the wall blanking of the safety sensor open is taught during commissioning and can be corrected here. Maximum opening range of the door = 99%.
		SIO manual	not active Active	Safety sensor open (SIO) not active during manual opening.
	Bolt contact type	Current state	Bolt contact type Z->not active K-> NO contact F-> Deadbolt contact	
		Bolt contact type	Normally open contact Normally closed contact	Feedback e.g. of a motor lock.
	KB	Current state	KB	
			Z->not active K-> NO contact	

Designation	1st Sub-menu	2nd Sub-menu	3rd Sub-menu	Explanation
		KB contact type	Not used Normally open contact Normally closed contact	The input KB is active in the operating modes AU, LS and NA. With 2-leaf assemblies, the mechanical contact can be connected to the active leaf control or to the passive leaf control. When activated, the active leaf opens and, if switched on, the passive leaf opens. When activated, the output of the mechanical contact is closed (24 V applied at the KB input). Active in every operating mode if door is not closed.
KI		Not used		
KA		Not used		
NA		Not used		
LS		Not used		
AU		Not used		
DO		Not used		
OFF		Current state	OFF Z->not active K-> NO contact	
		OFF contact type	Not used Normally open contact Normally closed contact	
PE1		Current state	PE1 Z->not active K->not used F->not used	
		PE1 function		Wind load NO preset, cannot be changed
PE2		Current state	PE2 Z->not active K->not used F->not used	
		PE2 function	Not used	
		MPS	MPS	For connection of an MPS.
		Selector switch Summer	NO	For connection of a button for the summer function.
		Selector switch Winter	NO	For connection of a button for the winter function.
		Sabotage	NC	Permanently switched. If the contact is interrupted, KB is not evaluated in night mode. All other functions remain the same.
		Closing position GF	NO	Closing position contact of the door leaf - For 1-leaf door - For 1-leaf door drive with manual passive leaf (door closer): Closing position contact of the active leaf - For 2-leaf door: Active leaf contact to GF control, passive leaf contact to SF control

Designation	1st Sub-menu	2nd Sub-menu	3rd Sub-menu	Explanation
			Switch function NO	On activation, the output of the push button is closed. With 2-leaf assemblies the push button can be connected to the active leaf control or to the passive leaf control. If the push button is connected to the passive leaf control, both door leaves open and close on activation of the switch function. When the push button is pressed once, the drive opens the door. When the push button is pressed again, the drive closes the door.
			Switch function OHZ NO	On activation, the output of the push button is closed. With 2-leaf systems, the push button can be connected to the active leaf control or to the passive leaf control. If the push button is connected to the passive leaf control, both door leaves open and close on activation of the switch function, even if the passive leaf control is switched off (bed opening). When the push button is pressed once, the drive opens the door and closes after the hold-open time has expired. When the push button is pressed again (within the hold-open time) the drive closes the door without waiting for the hold-open time to expire. If the push button is connected to the active leaf, the 1-leaf hold-open time is used with 1-leaf use, and the 2-leaf hold-open time with 2-leaf use.
			Stop 12 kOhm NO	For connecting a stop button with 12 kOhm terminating resistor.
			Reset push button NO	For restarting the drive. Function as reset.
			Double push button NO	1× press = 1-leaf opening. 2× press = 2-leaf opening.
			Stop closer NO	For connecting a stop button.
			Stop opener NC	For connecting a stop button.
			Stop 20 kOhm	For connecting a stop button with 20 kOhm terminating resistor.
			WC control	Connection to the internal push button for the WC function.
			Fire alarm	If active, the door opening torque function with fire alarm torque is set for the duration.

Designation	1st Sub-menu	2nd Sub-menu	3rd Sub-menu	Explanation
	PE3	Current state	PE3 Z->not active K->not used F->not used	
		PE3 function	Not used	
			MPS	MPS For connection of an MPS.
			Selector switch Summer	NO For connecting a push-button for the summer function.
			Selector switch Winter	NO For connecting a button for the winter function.
			Sabotage	NC see PE2
			Closing position GF	NO Closing position contact of the door leaf ▫ For 1-leaf door ▫ For 1-leaf door drive with manual passive leaf (door closer): Closing position contact of the active leaf ▫ For 2-leaf door: Active leaf contact to GF control, passive leaf contact to SF control
			Switch function	NO see PE2
			Switch function OHZ	NO see PE2
			Stop 12 kOhm	NO For connecting a stop button with 12 kOhm terminating resistor.
			Reset push button	NO For restarting the drive. Function as reset.
			Double push button	NO 1x press = 1-leaf opening 2x press = 2-leaf opening
			Stop closer	NO For connection of a stop button.
			Stop opener	NC For connection of a stop button.
			Closing position SF	NO Closing position contact of the passive leaf with 2-leaf door with manual passive leaf (door closer).
			Stop 20 kOhm	NO For connecting a stop button with 20 kOhm terminating resistor.
			WC control	NO Connection to the internal push button for the WC function.
			Fire alarm	NO If active, the door opening torque function with fire alarm torque is set for the duration.
	Mode of operation push button	Current state	Mode of operation push button Z -> not active K -> normally opened contact	
		push button contact	Not used Normally open contact	Operating modes push button on the drive not active. Operating modes push button on the drive active.
Output signals	PA1	Current state	PA1 Z->not active F->not used K-> NO contact	
		PA1 function		Wind load NO preset, cannot be changed

Designation	1st Sub-menu	2nd Sub-menu	3rd Sub-menu	Explanation
	PA2	Current state	PA2 Z->not active F->not used K-> NO contact	
		PA2 function		Motor brake NO preset, cannot be changed
	Testing SI	Current state *	Testing SI Z->not active K->not used F->No testing	
		Testing SI	No testing Testing with 24 V Testing with GND Energy-saving mode	Testing the safety sensor. Depending on the type used, the testing must be set to 24 V or GND here.
	Operating mode LED	Current state	Operating mode LED Z->not active K->not used F->Mode of operation	
		LED function	Mode of operation Inactive	Deactivates the mode of operation LED on the drive.

20.3.7 Diagnosis

Designation	1st Sub-menu	2nd Sub-menu	Explanation
Current values	Inputs	SI1	0 V
		SI3	0 V
		RM	0 V
		KB	0 V
		KI	0 V
		KA	0 V
		NA	0 V
		LS	0 V
		AU	0 V
		DO	0 V
		OFF	0 V
		PE1	0 V
		PE2	0.0 V
		PE3	0.0 V
		S1	0 V
		S2	0 V
		S3	0 V
		FK1	0 V
		FK2	0 V
		Latching act	0 V
	Outputs	PA1	closed
		PA2	0 V
		TOE	24 V
		TEST	24 V
		FAN	0 V
		MAG	0 V

Designation	1st Sub-menu	2nd Sub-menu	Explanation
Current conditions	Internal values	Current position	
		23	%
		Current motor power	
		Mot DCU800	0.0 A
		Voltages	
		Mains	On
		24 V internal	xy.z V
		24 V external	xy.z V
		Temperatures	
		DCU800	41 degrees C
		M DCU800	45 degrees C
		Statistics	
		Cycles total	0
		Cycles man	0
		Hours	1352
		Hours ser	112
		Yoke cycles	235
	Inputs	SI1	off
		SI3	off
		RM	off
		KB	off
		KI	off
		KA	off
		NA	off
		LS	off
		AU	off
		DO	off
		OFF	off
		PE1	off
		PE2	off
		PE3	off
		S1	off
		S2	off
		S3	off
		FK1	off
		FK2	off
		Latching act	off
	Outputs	PA1	off
		PA2	off
		TOE	off
		TEST	off
		FAN	off
		MAG	off
Error memory	Current faults	Fault 1	Cause 1
			Cause 2
		Fault 2	Cause 1
			Cause 2
		Fault 3	Cause 1
			Cause 2
		Fault 4	Cause 1
			Cause 2
	Old faults	Fault 1	Cause 1
			Cause 2
		Fault 2	Cause 1
			Cause 2
	Delete current errors		no
			yes
	Clear old faults		no
			yes
Configuration	Drive	Ser. no.	000000000000
		OEW	left ?xyz
		Mot.Resist:	1770mOhm
		Curr.M.Res:	0mOhm

Designation	1st Sub-menu	2nd Sub-menu	Explanation
	Control unit	Type Prod. date. SVN 2820:2902M	Axira CW xy xzyx (example)

20.3.8 Standard values

Designation	1st Sub-menu	2nd Sub-menu	Explanation
Standard values	no yes		Values are set to standard settings. Position, SIO wall blanking and opening angle are retained. Fault memory is deleted. A teaching run and initialisation run are not necessary.

20.3.9 Reset DCU8

Designation	1st Sub-menu	2nd Sub-menu	Explanation
Reset DCU8	no yes		Fault memory is deleted. Position and opening angle are not deleted. The processor restarts. A teaching run is not necessary, an initialisation run is necessary.

20.3.10 Start teaching

Designation	1st Sub-menu	2nd Sub-menu	Explanation
Start teaching	1-leaf teaching 2-leaf teaching		Starts the teaching procedure. For the procedure, see chapter 17.2.

20.3.11 Factory setting

Designation	1st Sub-menu	2nd Sub-menu	Explanation
Factory setting	no yes		Reset all the values to the factory settings. The condition is as after delivery, the default setting, fault memory, position and opening angle are deleted. A teaching run and initialisation run are necessary.

20.3.12 Delete maintenance

Designation	1st Sub-menu	2nd Sub-menu	Explanation
Delete maintenance	no yes		Clear the maintenance values.

20.3.13 Password

Designation	1st Sub-menu	2nd Sub-menu	Explanation
Change PW S1	Password old 0000 Password new ----		For access to the service menu with ST220.

Designation	1st Sub-menu	2nd Sub-menu	Explanation
DPS disabling	Password old 00 Password new --		Is used to enable the DPS instead of enabling via a key switch. Disabling reoccurs automatically after 1 minute without push button activation. The first digit specifies how often the ▲ button has to be pressed and the second digit how often the ▼ button has to be pressed to enable operation of the DPS.
Block parameters	no yes		

Entering the password in control unit ST220

- ▶ Change digit with ▲ or ▼.
 - ▶ Confirm digit and change to next position with ↵
 - ▶ Abort with x.
- The current position is indicated by the asterisk below.
- ▶ After completing entry, press ↵ to accept the password.



- After 1 minute without a button being pressed or when the service menu is accessed again, the password is required before changes to the operating mode setting or to the parameter settings can be carried out.
- The password has to be set separately for the active leaf and passive leaf drive. The active leaf drive and the passive leaf drive can have different passwords.
- When the password for ST220 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

20.3.14 Language

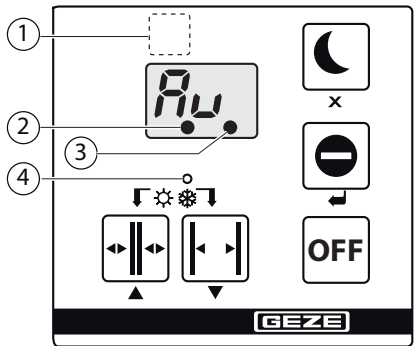
Designation	Setting values	Explanation
Language	German English French Swedish	

20.4 Display programme switch DPS

The DPS can be used for commissioning and servicing, mat. no. 151524:

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

Operating mode		Service mode	
R_u	Automatic	▲	Scroll up increase value
σF	OFF		
▲ + ▼ simultaneously	Change 2-leaf operation 1-leaf operation	- -	
Service button (1) + ↵ simultaneously	Change mode of operation / service mode		



1 Service button

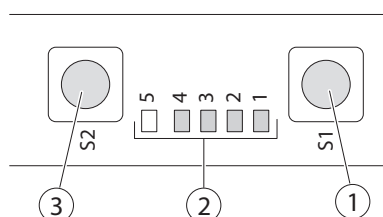
2 Position unknown

3 Illuminated for maintenance

4 Lights up at 1-leaf operation

20.5 Service buttons S1 and S2

- 1 Service button S1
- 2 Service LEDs
- 3 Service button S2



The service buttons S1 and S2 have the following functions:

- for diagnosis
- for indicating and changing drive parameters
- for "teaching" the drive



During normal operation the LEDs indicate the current mode of operation. The mode of operation can be changed using keys S1 and S2.

Function	Input and reaction
Open/leave the parameter menu	► Simultaneously press buttons S1 and S2 longer than 2 s. LED5 flashes slowly, corresponding to the selected parameter level: Level 1: 1 pulse + 1 s pause Level 2: 2 pulses + 1 s pause LED1 through LED4 display the parameter.
Parameter selection	► Briefly press key S2 (+) or key S1 (-).
Switch to value setting	► Keep key S1 pressed longer than 2 s. In the value menu, LED5 is off, LED1 to LED4 display the value according to the value table.
Change value	► Briefly press key S2 (+) or key S1 (-).
Confirm value	► Press key S1 longer than 2 s.
Value setting without exiting value change	► Press key S2 longer than 2 s.
Reset the values to the factory settings	► Set parameter 24 (factory settings) to 01.

System signals

- If one or more faults are present, these are displayed one after the other, alternating with the current operating mode in coded form with the service LEDs 1 to 4.
- The red LED5 flashes quickly (10 Hz) on the fault display.
- The mode of operation is displayed for 5 s, the respective fault message for 2 s.

Service mode

- Individual parameters can be set for the control in service mode.
- Within the first 3 minutes of the mains voltage being switched on, the device can be changed to service mode using keys S1 and S2.
- There is a time limit to changing to service mode using keys S1 and S2 so that safety-related parameters are not changed unintentionally during operation.
- It is possible to change from any mode of operation to the service mode.
- The control automatically changes back to normal operation if no key is pressed in service mode for 3 minutes.
- In service mode, the control behaves in the same way as in the OFF mode of operation, the drive does not open and close automatically.
- The door can be opened and closed manually.

Changing to the parameter selection menu

- ▶ Simultaneously press keys S1 and S2 longer than 2 s.

The control changes to the parameter selection menu.

In this menu, the red LED5 flashes once (parameter level 1) or twice (parameter level 2) at 1 Hz.

The parameters are indicated in coded form by the other 4 LEDs.

The desired parameters are selected using keys S1 (–) and S2 (+).

Changing to the value menu

- ▶ Press key S1 for longer than 2 s.

The control changes to the value menu.

- All 5 LEDs are used for coding the values.
- The desired value is selected using keys S1 (–) and S2 (+).
- After key S1 has been kept pressed for more than 2 s the control takes over the value indicated.
- Input can always be aborted by pressing key S2 for more than 2 s; the control then changes back to the value menu or the parameter menu.
- Service mode is quit by pressing keys S1 and S2 simultaneously for more than 2 s.

Display values service LEDs

5	4	3	2	1	Value
○	○	○	○	○	0
○	○	○	○	●	1
○	○	○	●	○	2
○	○	○	●	●	3
○	○	●	○	○	4
○	○	●	○	●	5
○	○	●	●	○	6
○	○	●	●	●	7
○	●	○	○	○	8
○	●	○	○	●	9
○	●	○	●	○	10
○	●	○	●	●	12
○	●	●	○	○	14
○	●	●	○	●	16
○	●	●	●	○	18
○	●	●	●	●	20

5	4	3	2	1	Value
●	○	○	○	○	25
●	○	○	○	●	30
●	○	○	●	○	35
●	○	○	●	●	40
●	○	●	○	○	45
●	○	●	○	●	50
●	○	●	●	○	55
●	○	●	●	●	60
●	●	○	○	○	65
●	●	○	○	●	70
●	●	○	●	○	75
●	●	○	●	●	80
●	●	●	○	○	85
●	●	●	○	●	90
●	●	●	●	○	95
●	●	●	●	●	100

20.6 DPS service menu and service buttons S1/S2 with LEDs

- Changing to the service mode is possible in the NA, LS, AU and DO operating modes.
- If no key is pressed in service mode for a period of 2 minutes, an automatic change to the operating mode takes place.
- In service mode, the door remains in operation in the current mode of operation (not when teaching is activated).

1st Menu

DPS	Service LEDs					Parameter	Setting values	Explanation
	5	4	3	2	1			
o t	*	○	○	○	●	Opening time	03... 04 ... 06 ... 25	in s; Opening time*) with automatic opening.
c t	*	○	○	●	○	Closing time	05 ... 06 ... 25	in s;
FB	*	○	●	○	●	Leaf width	07... 11 ...16	in mm × 100; Influences the forces at the main closing edge.
t δ						Door weight	01, 02, 03, 06	in kg × 100 ; Influences the safe speed.
P u	*	○	●	○	○	Push and Go	00 01 ... 20	0 %: No Push And Go 1–20 %: Push And Go Response range referenced to maximum opening range (=100).
SC	*	○	●	●	○	Latching action closing	00 ... 10 12 ... 20 25 ... 50	Sets the speed at which the drive moves to the closing position shortly before closing. This is required e.g. for operation with a motor lock. Latching action also applies for manual passage.
o r	*	○	●	●	●	Hold-open times, 1-leaf (winter)	00 ... 01 ... 10 12 ... 20 25 ... 50 60	in s; With 2-leaf drive for winter mode. With activation KI, KA
FI	*	●	○	○	●	SIS function	01 SIS rev	If the safety sensor close triggers, the door reverses.
F3	*	●	○	●	○	SIO function	05 SIO Stop	If the safety sensor open triggers, only the drive on the detected door leaf stops.
							06 SIO Stop SF-GF	If the behaviour should be the same for active leaf and passive leaf, both drives must be set to SIO stop SF GF. If the safety sensor open triggers, both active leaf and passive leaf drives stop.
t E	*	●	○	●	●	Testing SI	00 No testing 01 Testing with 24 V 02 Testing with GND	Testing the safety sensor. Depending on the type used, the testing must be set to 24 V or GND here.
t o	*	●	●	○	○	Electric strike type	00 No electric strike	
							01 Fail-secure	Drive does not have closing force (pressure in the closing position) before opening.
							02 Fail-safe	
							03 Motor lock	
							04 Working closing pressure	Drive has closing force (pressure in the closing position) before opening.
							05 Static closing pressure	
							06 Motor closing pressure	
S t	–	–	–	–	–	Control unit type	80 DCU8	Only display, no setting option.
OH	*	●	●	○	●	Type of installation	10 Pivot	
t S						Door closer mode	00 Manual	Manual: Door only closes after manual opening with set door closing torque, otherwise speed regulated.
							01 Automatic	Automatic: Door always closes with set door closing torque, no matter which type of activation.

*) The values for opening time and closing time refer to an opening angle of 90°.

DPS	Service LEDs					Parameter	Setting values	Explanation
	5	4	3	2	1			
<i>HE</i>						Manual interference	00 Not active 01 ...10 active	Provides the option of manually intervening in the movement of the door from the SIO side during automatic closing. When active, the door can then be manually reopened.
<i>EP</i>	-	-	-	-	-	Software version	e.g. SL, 10, 00 for DCU8 V1.0 or SF, 10, 01 for DCU8-F V1.0.1 for special solutions; Scroll forwards using "arrow downwards", menu has 3 levels 1st Level → SL; 2nd Level → 10; 3rd Level → 00 (00 → standard / 01 → for special solutions ...).	
<i>nE</i>								Next level

2nd Menu

DPS	Service LEDs					Parameter	Setting values	Explanation
	5	4	3	2	1			
<i>OP</i>	-	-	-	-	-	Hold-open times	00	in s;
<i>HO</i>	-	-	-	-	-	Hold-open times, manual	00 01 ... 10 12 ... 20 25 ... 50 60 No	in s; Hold-open time for manual opening; Values corresponding to the time. No automatic closing.
<i>dL</i>	-	-	-	-	-	Opening delay Day	00 ... 90	in s x 0,1; Delayed opening day: Time before the drive opens the door. Only applicable in the automatic and exit only modes of operation.
<i>dN</i>	-	-	-	-	-	Opening delay Night mode	00 ... 90	in s x 0,1; Delayed opening night mode: Time before the drive opens the door. Only applicable in the night mode of operation.
<i>Rd</i>	-	-	-	-	-	Servo duration	00 ... 20	in s; Adjustable duration of the force support in servo mode.
<i>Ro</i>	-	-	-	-	-	Additional servo torque	00 ... 50	in Nm; Adjustable torque of force support for manual opening (limited in time through "servo duration").
<i>dF</i>	-	-	-	-	-	Door closing torque	00, 16 ... 40 41 ... 70	in Nm; Door closing torque after manual opening. ~~DIN 18650~~ ~~EN 16005~~ 0 ... 40: ~~DIN 18650~~ 41 ... 70: ~~EN 16005~~ or safety sensors necessary.
<i>RB</i>	-	-	-	-	-	Wall blanking	00 ... 01 ... 99	00: No wall blanking. The application range for the wall blanking of the Open safety sensor is learnt during commissioning and can be corrected here. Maximum opening range of the door = 99.
<i>LE</i>	*	•	•	•	•	Start teaching 1-leaf teaching	Start/terminate	Teaching a 1-leaf system. For the procedure, see chapter 17.2.
<i>Er</i>	-	-	-	-	-	Current errors	<i>EE</i>	Display of the current faults in the fault memory. Delete with <i>EE</i> .

DPS	Service LEDs					Parameter	Setting values	Explanation
	5	4	3	2	1			
oE	–	–	–	–	–	Delete old faults	EE	Display of old faults in the fault memory. Delete with EE .
cP	**	○	○	○	●	Factory setting	cP	Reset all the values to the factory settings. The state is like after delivery. Values to standard setting, fault memory, position and opening angle are deleted. A teaching run and initialisation run are necessary.
LP	**	○	○	●	○	Standard values	dP	After acknowledgement, all values are set to the default setting. Position and opening angle are retained. Fault memory is deleted. A teaching run and initialisation run are not necessary.
PP	**	○	○	●	●	Reset DCU8	IP	After acknowledgement the display jumps to 88. Fault memory is deleted. Position and opening angle are not deleted. The processor restarts. A teaching run is not necessary, an initialisation run is necessary.

* 1 flashing pulse + 0.9 s pause

** 2 flashing pulses + 0.7 s pause

3rd Menu

DPS	Service LEDs					Parameter	Setting values	Explanation
	5	4	3	2	1			
o5	–	–	–	–	–	Hold-open time KB	00 ... 01 ... 10 12 ... 20 25 ... 50 60	in s; Hold-open time after activation with KB.
od	–	–	–	–	–	Dyn extension	00 No 01 Yes	When actuated, the passage frequency is taken into account in the hold-open time. The door does not close as fast when passage requirements are increased.
56	*	○	○	●	●	Manual closing time	10 ... 15 ... 20	in s; Closing time after manual opening or after automatic opening with set automatic door closing mode.
dR	–	–	–	–	–	Back check	10 ... 12 ... 20 ... 25 ... 50 ... 60 ... 80	Application of the back check, referenced to maximum opening range (manual opening).
E0	–	–	–	–	–	Setting opening width	–27 ... 00 ... 27	in degrees; The value is only for fine adjustment. The value is taught during the teaching run and then corresponds to point 0. This allows it to be adjusted manually and, again, subsequently corresponds to point 0. The opening value can thus be manually adjusted step-by-step. Is not set in the factory setting. 27= 3 degrees real.
EL	–	–	–	–	–	Reversing limit	00 ... 30 ... 90	In 0.1 degrees of the drive axle. Angle on the drive axis for fine adjustment of the tolerance in the closing position from which the drive attempts to close again. ► Set the value so that the door gap is as small as possible before the drive closes again.

DPS	Service LEDs					Parameter	Setting values		Explanation
	5	4	3	2	1				
02	-	-	-	-	-	Door opening	00 No 01 Yes		For doors without external loads such as wind or pressure, the parameter "free swing function" can be activated in order to enable optimum passage of the door.
0L						Move towards open	00 No		In the event of further opening attempts, the drive stops before the obstacle in the opening range.
							01 Obstruction Motor on		Drive pushes against the obstruction and switches the motor gear unit off.
							02 Obstruction Motor off		Drive pushes against the obstruction and makes the motor gear unit switch on.
EF	-	-	-	-	-	Number of leaves	01 1-leaf drive 02 2-leaf active 03 2-leaf passive		Parameter sets which of the door leaves the drive is installed on.
51	**	○	●	○	○	SI1 contact type	00 Not used 02 Normally closed contact 04 Frequency		Parameter sets the use of the safety sensor close contact type.
53	**	○	●	○	●	SI3 Contact type	00 Not used 02 Normally closed contact 04 Frequency		Parameter sets the use of the safety sensor open contact type.
66	-	-	-	-	-	KB contact type	00 Not used 01 Normally open contact 02 Normally closed contact		The input KB is active in the operating modes AU, LS and NA. With 2-leaf assemblies the mechanical contact can be connected to the active leaf control or to the passive leaf control. When activated, the active leaf opens and, if switched on, the passive leaf opens. During activation, the output of the mechanical contact is closed (24 V applied at the KB input). Active in every mode of operation when the door is not closed.
61	-	-	-	-	-	KI contact type	00 Not used 01 Normally open contact 02 Normally closed contact		The input KI is active in AU and LS mode. With 2-leaf assemblies the contact sensor inside can be connected to the active leaf control or to the passive leaf control. When activated, the active leaf opens and, if switched on, the passive leaf opens. Active in every mode of operation when the door is not closed.
IR	-	-	-	-	-	KI delay	00 ... 90		in s x 0,1; only active when the door is in a closed position. Can be adjusted in steps of 0.1.
6a	-	-	-	-	-	KA contact type	00 Not used 01 Normally open contact 02 Normally closed contact		The input contact sensor outside is only active in the AU operating mode. With 2-leaf systems, the contact sensor outside can be connected to the active leaf control or to the passive leaf control. When activated, the active leaf opens and, if switched on, the passive leaf opens. Active in every mode of operation when the door is not closed.
RR	-	-	-	-	-	KA delay	00 ... 90		in s x 0,1; only active when the door is in a closing position. Can be adjusted in steps of 0.1.

DPS	Service LEDs					Parameter	Setting values	Explanation
	5	4	3	2	1			
EI	-	-	-	-	-	PE1 function	00 Not used	
							03 Selector switch Summer	NO For connection of a push button for the summer function.
							04 Selector switch Winter	NO For connection of a push button for the winter function. Only for switching from 1-leaf to 2-leaf opening, not for actually opening the door.
							05 Sabotage	NC Permanently switched. If the contact is interrupted, KB is not analysed in night mode. All other functions remain the same.
							06 Closing position GF	NO Closing position contact of the door leaf ▫ For 1-leaf door ▫ For 1-leaf door drive with manual passive leaf (door closer): Closing position contact of the active leaf ▫ For 2-leaf door: Active leaf contact to GF control, passive leaf contact to SF control
							08 P-KI activation	NO Additional contact sensor (P-KI, P-KA).
							09 P-KA activation	NO For connection of additional closing contacts.
							10 Switch function	NO On activation, the output of the push button is closed. With 2-leaf assemblies the push button can be connected to the active leaf control or to the passive leaf control. If the push button is connected to the passive leaf control, both door leaves open and close on activation of the switch function, even if the passive leaf control is switched off (bed opening). When the push button is pressed once, the drive opens the door. When the push button is pressed again, the drive closes the door.
							11 Switch function OHZ	NO On activation, the output of the push button is closed. With 2-leaf assemblies the push button can be connected to the active leaf control or to the passive leaf control. If the push button is connected to the passive leaf control, both door leaves open and close on activation of the switch function, even if the passive leaf control is switched off (bed opening). When the push button is pressed once, the drive opens the door and closes after the hold-open time has expired. When the push button is pressed again (within the hold-open time) the drive closes the door without waiting for the hold-open time to expire. If the push button is connected to the active leaf, the 1-leaf hold-open time is used with 1-leaf use, and the 2-leaf hold-open time with 2-leaf use.
							13 Reset push button	NO For restarting the drive. For function, see chapter 20.3.9.
							14 Double push button	NO 1x press = 1-leaf opening 2x press = 2-leaf opening
							15 Stop normally open contact	NO For connection of a stop push button.
							16 Stop normally closed contact	NC

DPS	Service LEDs					Parameter	Setting values		Explanation
	5	4	3	2	1				
							19	Closing position SF	Closing position contact of the passive leaf with 1-leaf door with manual passive leaf (door closer).
							21	WC control	Connection of the internal button for the WC function.
							22	Fire alarm	NO If active, the door opening torque function with fire alarm torque is set for the duration.
							23	1-leaf opening	In the 2-leaf system, only 1 leaf is opened when the signal on the active leaf is active.
E2	-	-	-	-	-	Configurable input 2	00	Not used	
E3	-	-	-	-	-	Configurable input 3	01	MPS	For connection of a mechanical programme switch
							03	Selector switch Summer	NO For connection of a push button for the summer function.
							04	Selector switch Winter	NO For connection of a push button for the winter function. Only for switching from 1-leaf to 2-leaf opening, not for actually opening the door.
							05	Sabotage	NC Permanently switched. If the contact is interrupted, KB is not analysed in night mode. All other functions remain the same.
							06	Closing position GF	NO Closing position contact of the door leaf ▫ For 1-leaf door ▫ For 1-leaf door drive with manual passive leaf (door closer): Closing position contact of the active leaf ▫ For 2-leaf door: Active leaf contact to GF control, passive leaf contact to SF control
							07	Emergency lock 20 kOhm	NO The input can be used to connect an emergency lock switch. When the emergency lock switch is activated the contact is closed and 24 V is applied to the input. The door closes and locks. The contact sensors KI and KA are hidden. The safety sensors and obstruction detection remain active. The door remains closed, as long as the emergency lock signal is applied to the input.
							08	P-KI activation	NO Additional contact sensor (P-KI, P-KA).
							09	P-KA activation	NO For connection of additional closing contacts.
							10	Switch function	NO see PE1
							11	Switch function OHZ	NO see PE1
							12	Stop 12 kOhm	NO For connecting a stop button with 12 kOhm terminating resistor.
							13	Reset push button	NO For restarting the drive. Function as reset.
							14	Double push button	NO 1× press = 1-leaf opening 2× press = 2-leaf opening
							15	Stop normally open contact	NO For connection of a stop push button.
							16	Stop normally closed contact	NC

DPS	Service LEDs					Parameter	Setting values	Explanation
	5	4	3	2	1			
							19 Closing position SF	Closing position contact of the passive leaf with 2-leaf door with manual passive leaf (door closer).
							20 Stop 20 kOhm	NO For connecting a stop button with 20 kOhm terminating resistor.
							21 WC control	Connection of the internal button for the WC function.
							22 Fire alarm	If active, the door opening torque function with fire alarm torque is set for the duration.
							23 1-leaf opening	In the 2-leaf system, only 1 leaf is opened when the signal on the active leaf is active.
R1	-	-	-	-	-	Configurable output 1	00 Not used	
R2	-	-	-	-	-	Configurable output 2	01 Gong	If KA is triggered.
							02 Fault normally open contact	The function is used for fault messages, e.g. to an on-site building control centre. The contact closes or opens respectively if the control determines a fault.
							03 Fault normally closed contact	
							04 Fault MPS	The function is used to switch the fault LED at the MPS. The contact closes if the control determines a fault. When maintenance is due, the output is switched cyclically and the fault LED on the MPS flashes.
							05 Warning signal	The function is used to switch a signalling device on/off cyclically when the door is opened or closed.
							06 Electric strike	For connection of an additional electric strike.
							08 Closed locked	The function is used to signal the door status, e.g. to a building control centre.
							09 Closed	
							10 Not closed	
							11 Open	
							12 Off	
							13 Night mode	
							14 Exit only	
							15 Automatic	
							16 Hold open	
							17 Light control	The function is used to activate a light controlling device which, for example, switches on the entry illumination as soon as a contact sensor (KI, KA, KB, SIS+KI, SIS+KA) is activated or the door is opened manually.
							18 Day/night mode changeover	This function is used to signal the day mode of operation to a customer building control centre. The output switches to GND if the operating mode LS, AU 1-leaf, DO, or AU 2-leaf is set.
							19 Not used	
							20 Maintenance due	The function is used to signal the door status, e.g. to a building control centre.
							21 Holding magnet GF	To set the active door leaf holding magnet.
							22 Holding magnet SF	To set the passive leaf holding magnet.

DPS	Service LEDs					Parameter	Setting values	Explanation
	5	4	3	2	1			
							24 WC timeout	For connecting a lamp or a signal for signalling when the 30-minute timer for the WC function has expired.
<i>FO</i>	-	-	-	-	-	Opening force	01 ... 15 ... 25	×10 N; Static force at the main closing edge opening.
<i>FC</i>	-	-	-	-	-	Closing force	01 ... 15 ... 25	×10 N; Static force at the main closing edge closing.
<i>bh</i>	-	-	-	-	-	Obstruction	01 ... 03 ... 20	×0.1 s; Time for which the drive pushes against an obstacle with the set static force.
<i>OF</i>	-	-	-	-	-	Opening retention force	00 ... 01 ... 07	×10 N; Constant force at the main closing edge in open position.
<i>CF</i>	-	-	-	-	-	Closing retention force	00 ... 01 ... 07	×10 N; Constant force at the main closing edge in closed position.
<i>FS</i>	-	-	-	-	-	Closing position force	00 ... 01 ... 15	×10 N, force acts after the end of the latching action in the closed position. Manual opening is more difficult during the set time. The greater the force set, the longer the duration. Examples: for 10 N=0.5 s, for 150 N = 2 s
<i>BR</i>	-	-	-	-	-	Basic function	01 Yes	The drive is in automatic mode.
<i>rr</i>	-	-	-	-	-	Bolt contact type	01 Normally open contact 02 Normally closed contact	Feedback e.g. of a motor lock.
<i>SH</i>	-	-	-	-	-	SIO manual	00 Not active 01 Active	SIO not active during manual opening. SIO active during manual opening.
<i>SS</i>	-	-	-	-	-	SIS manual	00 Not active 01 Active	SIS not active during closing after manual opening. SIS active during closing after manual opening.
<i>PH</i>	-	-	-	-	-	Manual rev. closing	00 Not active 01 Active	Reversing in the event of an obstruction within closing following manual opening: not active. Reversing in case of obstruction during closing after manual opening: active.
<i>PR</i>	-	-	-	-	-	Auto rev. closing	00 Not active 01 Active	Reversing in case of obstruction during closing after manual opening: active. Reversing in case of obstruction during closing after manual opening: active.
<i>SB</i>	-	-	-	-	-	ECO mode	00 Not active 01 Active	ECO mode for the control. The 24 V supply to terminal 4 is switched off in the DO and NA modes of operation. Note: Activation via access control of KB in the event of NA, as well as closing the door when switching from DO to AU, requires a few seconds, as the system first has to boot up.
<i>BZ</i>	-	-	-	-	-	Braking force	01 ... 13 ... 14	Braking force in de-energised operation; e.g. to stop the door from slamming shut. To set it such that the door closes in 5 s, see chapter 18.

DPS	Service LEDs					Parameter	Setting values		Explanation
	5	4	3	2	1				
5P	-	-	-	-	-	Language	00	deutsch	Language of the drive.
							01	English	
							02	Français	
							03	Svensk	
CS	-	-	-	-	-	Delete maintenance	cS		Reset maintenance counter, switch off service LED. After acknowledgement the display switches between CS → cS
85	-	-	-	-	-	Operating Duration	Co	Total no. of cycles/100	Display 6-digits each. Scroll downwards with "downward arrow".
							CH	No. of manual cycles/100	
							Ho	Operating hours/4	
							So	Operating hours/4 until next service	

* 1 flashing pulse + 0.9 s pause

** 2 flashing pulses + 0.7 s pause

21 Fault messages

21.1 Fault messages ST220 and DPS

21.1.1 Fault display

On the DPS

- For troubleshooting and fault description, see the "Faults and actions - control DCU2" list.
- Currently queued fault messages are displayed on the display programme switch in cycles (10 s). In addition, they are also entered in the **Er** and **oE** fault memories.
- The mode of operation is displayed for 5 s, the fault message for 2 s.
- Individual faults are indicated by the fault ID.
- If the faults are group faults, only the main fault number is indicated e.g. 22.

On the control unit ST220

- Faults are shown using the text form of the fault names.
Fault example: SIS SF
- In addition, the following states are displayed:
 - not learnt: Winter LED flashes continuously (1 s on, 3 s off)
 - Maintenance: Winter LED flashes continuously (0.5 s on, 0.5 s off)

21.1.2 Fault messages

Fault no.	Message on the DPS	Message on the ST220	Fault description
01	01	24 V missing	Control faulty, short circuit at 24 V.
03	03	230 V fault	Power failure, 230 V group fault.
		230 V low voltage	230 V undervoltage.
		230 V overvoltage	230 V overvoltage.
06	06	Wind load too high	The wind monitor signals that the wind load is too high.
07	07	Fire alarm GF	Smoke detector active.
			Jumper not inserted.
10	10	Rotary encoder GF	Group fault rotary encoder.
		Rotary encoder model	Rotary encoder displays fault.
		Edge counter	Error in identifying the rotary encoder edges.
		Position check	Rotary encoder position error.

Fault no.	Message on the DPS	Message on the ST220	Fault description
		Fault direction	Direction of rotation of motor gear unit or rotary encoder is incorrect.
11	<i>11</i>	Motor gear unit 1 short	Motor current too large.
12	<i>12</i>	Motor gear unit 1	Motor gear unit defective.
13	<i>13</i>	SIS defective	Safety sensor close active leaf, group fault.
		Permanent activation	Safety sensor close GF" activated for more than 4 min.
		Testing	Error in testing safety sensor close GF.
14	<i>14</i>	MPS	Inconsistent state at the PS inputs or line break MPS.
15	<i>15</i>	Comm. DPS	No communication between control – display programme switch.
16	<i>16</i>	Locking mechanism	Electric strike does not block.
17	<i>17</i>	Unlocking	Electric strike does not trigger.
19	<i>19</i>	SIS SF fault	Safety sensor close passive leaf, group fault.
		Permanent activation	Safety sensor "close passive leaf" activated for more than 4 min.
		Testing	Error in testing safety sensor "close passive leaf".
22	<i>22</i>	Mechanical fault GF	A mechanical fault has occurred on the active leaf; group fault.
		Rotate angle	It has been detected that the cam has skipped.
		Defective magnetic valve	The solenoid valve of the energy storage device is defective.
23	<i>23</i>	Mechanical fault SF	A mechanical fault has occurred at the passive leaf; group fault.
		Rotate angle	It has been detected that the cam has skipped.
		Defective magnetic valve	The solenoid valve of the energy storage device is defective.
25	<i>25</i>	Teaching run fault GF	Teaching run group fault, teaching run invalid.
		Latching action switch	Teaching run is invalid e.g. due to incorrect limit switch settings.
		Obstruction learn close	Obstruction of the door leaf during the learning procedure.
		Learning timeout	Time-out expired within 60 s of teaching.
26	<i>26</i>	Teaching run fault SF	Passive leaf teaching run group fault, teaching run invalid.
		Latching action switch	Teaching run is invalid e.g. due to incorrect limit switch settings.
		Obstruction learn close	Obstruction of the door leaf during the learning procedure.
		Learning timeout	Time-out expired within 60 s of teaching.
28	<i>28</i>	Relay DCU800	Motor relay defective.
29	<i>29</i>	SIO SF fault	Safety sensor open passive leaf, group fault.
		Permanent activation	Safety sensor open SF activated for more than 4 min.
		Testing	Error in testing safety sensor open SF.
32	<i>32</i>	Sabotage	Sabotage active.
35	<i>35</i>	Permanent activation PE1	Expected configuration as MPS, sabotage, stop, emergency lock.
36	<i>36</i>	Permanent activation PE2	Expected configuration as MPS, sabotage, stop, emergency lock.
37	<i>37</i>	Permanent activation KI	Movement detector defective or activation > 4 min.
38	<i>38</i>	Permanent activation PE3	Expected configuration as MPS, sabotage, stop, emergency lock.
39	<i>39</i>	Permanent activation KA	Activation longer than 4 min.
40	<i>40</i>	Permanent activation KB	Activation longer than 4 min.
41	<i>41</i>	SIO 1	Safety sensor open active leaf, group fault.
		Permanent activation	Safety sensor open GF activated for more than 4 min.
		Testing	Error in testing safety sensor open GF.

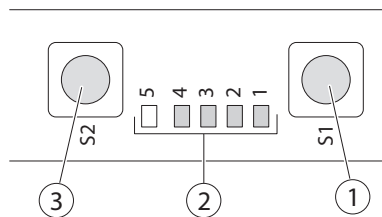
Fault no.	Message on the DPS	Message on the ST220	Fault description
42	~~42~~	Emergency lock	
		Activation active	If the function is active via PE.
		Push button defective	If the push button for the function is detected as defective.
44	~~44~~	Input stop	Stop is active.
45	~~45~~	Motor gear unit hot	Motor gear unit or control temperature higher than 95 °C.
46	~~46~~	T-sensor motor gear unit	Motor temperature sensor defective.
47	~~47~~	T-sensor ctrl.	Control temperature sensor defective.
48	~~48~~	Overtemp	Motor gear unit or control temperature higher than 105 °C.
51	~~51~~	24 V missing SF	Control defective passive leaf.
53	~~53~~	230 V error SF	230 V passive leaf group fault.
		230 V low voltage	230 V undervoltage SF.
		230 V overvoltage	230 V overvoltage SF.
54	~~54~~	Comm. DPS NT	Communication error DPS NT.
57	~~57~~	Fire alarm SF	Smoke detector active passive leaf.
60	~~60~~	Ctrl. DCU800	Internal control fault, group fault for active leaf.
		EEPROM value	–
		EEPROM comparison	–
		Fault current measurement	Error in motor current measurement.
		EEPROM time-out	–
		Quartz tolerance	–
		RAM test	–
		ROM CRC test	–
		VCC test	–
		Quartz failure	–
		Motor gear unit resistance	–
		Comm. M1-M2	–
		Wrong HW/SW combination	–
63	~~63~~	SW version	Active leaf and passive leaf have different software versions.
65	~~65~~	Comm. SF-GF	No communication active leaf/passive leaf control.
66	~~66~~	Locking mechanism SF	Electric strike not blocking (passive leaf).
67	~~67~~	Unlocking SF	Electric strike not triggering (passive leaf).
70	~~70~~	Ctrl. DCU800 SF	Internal control fault, group fault such as fault 60. For detail, log into SF.
71	~~71~~	Motor gear unit SF short	Motor current too large.
72	~~72~~	Motor gear unit SF	Motor gear unit defective.
74	~~74~~	Rotary encoder SF	Rotary encoder signals faulty.
75	~~75~~	DCU800 hot	Passive leaf drive, motor gear unit or control temperature higher than 95 °C.
76	~~76~~	Sensor motor gear unit SF	Motor temperature sensor defective.
77	~~77~~	T-sensor SF	Control temperature sensor defective.
78	~~78~~	Overtemp SF	Motor gear unit or control temperature higher than 105 °C.
79	~~79~~	Relay SF	Motor relay defective, passive leaf.

Fault no.	Message on the DPS	Message on the ST220	Fault description
X.X	Position		Leaf position unknown (dot on left display).
X X.	Maintenance		Maintenance requirement (number of cycles, operating hours, dot on right display).
B.B.	DPS		No communication with control - display programme switch
--	DPS		Operation at programme switch.
o o	DPS		Release operation at programme switch.
00	DPS		Operating mode change via programme switch not possible (internal PS is not set to 0, or MPS is parameterised).
r5	Reset		On starting the teaching procedure: Reset push button not pressed or 24 V smoke switch control unit missing.

21.2 Fault messages at the service button LEDs

- Fault messages of fault groups are indicated on the service button LEDs. The exact fault can be determined using the fault number in chapter 21.1.2.
- With the service button LEDs, LED 5 flashes at 10 Hz.
- Mode of operation LEDs: If one or more faults are pending, the operating modes display flashes quickly (10 Hz) in the colour of the current mode of operation, see chapter 13.2.1, "Changing the operating mode using the service LEDs".

- 1 Service button S1
- 2 Service LEDs
- 3 Service button S2



Display of service button LEDs					Designation of the fault group	Fault no. in chapter 21.1.2
5	4	3	2	1		
*	o	o	o	●	Alarm	07, 32, 57
*	o	o	●	o	Power failure	03, 53
*	o	o	●	●	Drive too hot	45, 46, 48, 75, 76, 78
*	o	●	o	o	SIO	29, 41
*	o	●	o	●	Mechanical faults	20, 21, 22, 23, 25
*	o	●	●	o	SIS	13, 19
*	o	●	●	●	Locking mechanism	16, 17, 65, 67
*	●	o	o	o	Motor gear unit	10, 11, 12, 71, 72, 74
*	●	o	o	●	Control unit	01, 28, 47, 51, 52, 60, 63, 70, 77, 79
*	●	o	●	o	Communication	15, 34, 54
*	●	o	●	●	Activation	06, 14, 35, 36, 37, 38, 39, 40, 44, 73
–	–	–	–	–	No operating voltage	–

- o LED off
- LED on
- * LED flashes at 10 Hz

22 Disposal

The Axira drive system is made up of materials that must be recycled.

For this purpose, the individual components should be sorted corresponding to material type:

- Aluminium (profiles, cover, deflection pulleys, sliding blocks, ...)
- Iron (driver, screws, ...)
- Plastic
- Electronic parts (bolt, motor gear unit, control unit, transformer, sensors, ...)
- Cables

The parts can be disposed of at the local recycling depot or by a scrap recycling company.

Rechargeable batteries contain pollutants and heavy metals. Do not dispose of these with household waste.

Hand in rechargeable batteries to your local recycler, too.

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