

# GEZE Perlan AUT-NT

Translation of the original instructions  
GB User manual

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# 1 Symbols and means of representation

## Warnings



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

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

Warning symbol	Warning word	Meaning
	<b>WARNING</b>	Danger for persons. Non-compliance can result in death or serious injuries.
	<b>CAUTION</b>	Danger for persons. Non-compliance can result in minor injuries.
–	<b>CAUTION</b>	Information on avoiding material damage, understanding a concept or optimising the processes.

## Further symbols and means of representation

Important information and technical notes are emphasised in order to illustrate the correct operation.

Symbol	Meaning
	means "important note"
	means "additional information"
▶	Symbol for an action: Here you have to do something. ▶ Observe the sequence if there are several action steps.

# 2 Product liability

In accordance with the liability of manufacturers for their products as defined in the German "Produkthaftungsgesetz" (Product Liability Act), the information contained in these instructions (product information and proper use, misuse, product performance, product maintenance, obligations to provide information and instructions) is to be observed. Non-compliance releases the manufacturer from its statutory liability.

# 3 Safety

## 3.1 Intended use

The PERLAN AUT-NT sliding door drive is designed for the automatic opening and closing of the sliding leaves.

The PERLAN AUT-NT sliding door drive is suitable for use in dry rooms in private areas.

The PERLAN AUT-NT sliding door drive may not be used at fire or smoke protection doors and in a hazardous (Ex) area.

The PERLAN AUT-NT sliding door drive may not be used to open and close vertical sliding leaves.

Any other use than the proper use, such as permanent manual operation, as well as all changes to the product are impermissible.

## 3.2 Safety instructions

Thoroughly read and abide by this user manual before commissioning the door. In addition, always observe the following safety precautions:

- The prescribed mounting, maintenance and repair work must be performed by properly trained personnel authorised by GEZE.
- The country-specific laws and regulations are to be observed during safety-related tests.
- GEZE shall not be liable for injuries or damage resulting from unauthorised modification of the system.
- GEZE shall not be liable if products from other manufacturers are used with GEZE equipment.
- Only original GEZE parts may be used for repair and maintenance work.
- The connection to the power supply must be made by a professional electrician. Perform the power connection in accordance with DIN VDE 0100-610.
- The electrical installation at the customer has to have an all-pole power disconnecter that can be secured reliably against reactivating (e.g. lockable switch with at least 3 mm contact opening).
- A customer-side 10 A overload cut-out must be used as the line-side disconnecting device.
- Observe the latest versions of guidelines, standards and country-specific regulations, in particular:
  - BGR 232 "Guidelines for power-operated windows, doors and gates"
  - DIN 18650, Part 1 and 2 "Automatic door systems"
  - DIN VDE 100-600 "Installation of low-voltage systems - Part 6 Tests"
  - DIN EN 60335-1 "Safety of electrical devices for home use and similar purposes"
  - Accident-prevention regulations, especially BGV A1 (VBG1) "General regulations", and BGV A3 (VBG4) "Electrical systems and equipment"

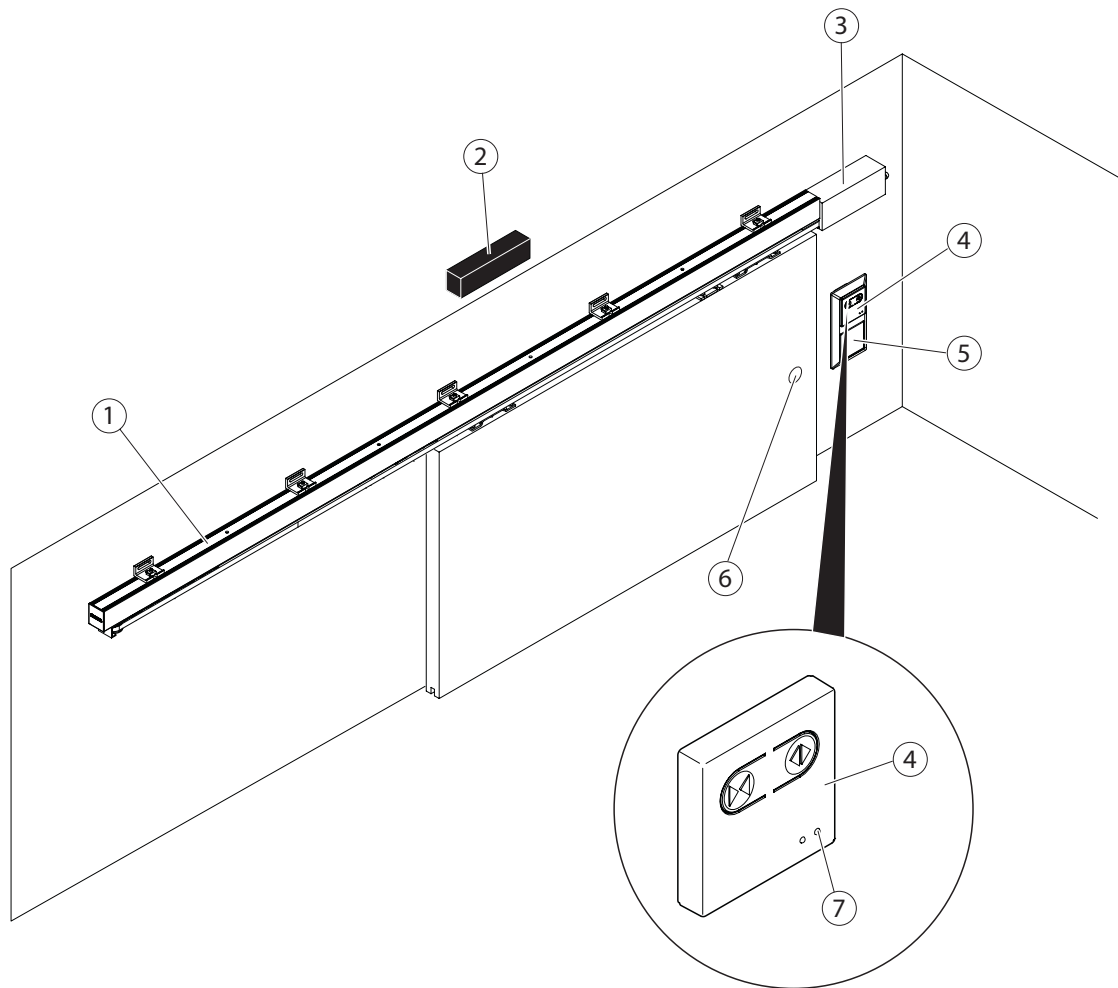
## 4 Terms

Term	Statement
Drive sides at 1-leaf systems	The side of the track on which the drive unit is located, is usually the closing direction of the sliding leaf
Drive sides at 2-leaf systems	The side of the track on which the drive unit is located, is usually the opening direction of the sliding leaf
Contactors	Button, switch or motion detector for actuating the sliding door drive. Actuation function in the "Automatic" operating mode
Contactor with switch function	Button for opening and closing the sliding leaf. Actuation function only in the "Automatic" operating mode. The sliding leaf is opened automatically when the button is first pressed and closed again automatically when the button is pressed the second time. The function can be activated during commissioning by parameter configuration.
Push & Go	If the sliding leaf is pressed manually out of the closing position during an activated Push & Go function in the "Automatic" operating mode, the sliding leaf opens automatically.
Stop	Self-locking switch with which immediate stopping of the sliding door drive can be triggered in case of danger. The sliding door drive remains in its current position until the user releases the stop switch again, thus terminating the stop situation.

## 5 Structure



The sliding door drive shown is only a schematic diagram. For technical reasons, we cannot show all of the possibilities here. The operating elements can be arranged individually.



- 1 Track
- 2 Contactors
- 3 Drive unit
- 4 Button switch

- 5 Power pack 230 V / 24 V
- 6 Flush pull
- 7 Operating mode LED

## 6 Operation



The set parameters of the drive functions may only be modified by properly trained persons.



Commissioning and the setting or modification of the door parameters as well as of some special drive functions can be carried out by using the DIP switches on the controller (see wiring diagram Perlan AUT-NT, Mat. No. 139997).

### 6.1 Operating modes

#### **Dead-man**

The drive continues to move in the direction as long as its button is pressed or the signal is applied. In case of obstacles the sliding door drive stops.

#### **Semi-automatic**

The drive moves in the direction of the pressed button or of the applied signal. The drive does not close automatically after an opening pulse. It remains in the open position and only closes after a renewed closing command. The sliding door drive stops in case of obstacles, a stop signal or control commands against the current direction of movement.

#### **Automatic**

In addition to the semi-automatic operating mode the sliding door drive closes automatically after the set hold-open time.

In the case of obstacles in the closing direction the door opens again and closes automatically after the set hold-open time. In the case of control commands against the current direction of movement the sliding door drive reverses. At a stop signal the sliding door drive stops for the duration of the stop signal. When the stop signal drops again, the door moves further in the direction of movement previously selected.

#### **Single permanent opening**

In order to induce a unique permanent opening in automatic mode the OPEN and CLOSE buttons have to be kept pressed for longer than 2 seconds. The sliding door drive does not close automatically after this opening pulse. It remains in the open position and only closes after a closing command (press CLOSE button). After the close command the sliding door drive is back in automatic mode.

### 6.2 Display of the operating mode

The operating mode is indicated by the green LED at the operating panel. During an automatic cycle it lights up continuously as long as the sliding door drive is moving. During the hold-open time the LED flashes, in semi-automatic mode the LED flashes during the movement.

The red LED flashes rapidly in case of a fault (system fault).

Clearing a system fault:

- ▶ Press the Reset button for at least 2 seconds.

### 6.3 Behaviour in the individual operating modes

#### Automatic

State	OPEN button <sup>1)</sup>	CLOSE button	STOP button <sup>2)</sup>	At obstacle
Closed	Open, wait for hold-open time, close	---	Door remains closed, inactive until stop button. An OPEN button actuation remains stored for 20 s. If the stop button becomes inactive within this period, opening is carried out.	---
Opens	Opens further, wait for hold-open time, close	Reverses and closes	Door stops, hold-open time is set. If the STOP button becomes inactive within the hold-open time, the door opens further, otherwise the door closes.	Door stops, waits briefly, tries to open further (max. 3x). If opening is not possible, the door closes.
Open	Hold-open time is set again	Hold-open time is aborted, closes	Door remains open, hold-open time is set again, as long as the button is active.	---
Closes	Reverses, opens, wait for hold-open time, close	Closes further	Door stops, if STOP button becomes inactive, the door closes.	Reverses, opens, wait for hold-open time, close
Starting of the hold-open time if the door is open and the OPEN button inactive				

<sup>1)</sup> possibly additional OPEN actuation sensors at the same terminal

<sup>2)</sup> higher priority than OPEN button and CLOSE button



The Push & Go function behaves like pushing on the OPEN button.

If the OPEN and CLOSE buttons are pressed simultaneously:

- Less than 2 s: No reaction
- More than 2 s: Door opens or remains open (permanently open function). Aborting by pressing the CLOSE button.

#### Semi-automatic

State	OPEN button	CLOSE button	STOP button <sup>1)</sup>	At obstacle
Closed	Opens	Remains closed	Remains closed	–
Opens	Opens further	Stops	Stops	Stops
Open	Remains open	Closes	Remains open	–
Closes	Stops	Closes further	Stops	Stops
Stand still between open and closed	Opens	Closes	Stops	–

<sup>1)</sup> higher priority than OPEN button and CLOSE button



The Push & Go function behaves like pushing on the OPEN button.

- If the OPEN and CLOSE buttons are pressed simultaneously, there is no reaction.

## 7 Error display

If the safety functions recognize a fault, the controller changes to the fault state. In this case the driver block and the safety relay are deactivated first.

The following system states have been defined for the fault recognition:

Fault code	Name	Description	Fault elimination
0	System OK	No fault	–
1	Unknown fault	Unknown cause of fault	▶ Switch mains voltage off/on.
2	Self-test – several faults	The self-test has recognised several faults	▶ Carry a reset as described in Chapter 6.2. ▶ Replace the controller if necessary.
4	Self-test – oscillator fault	The self-test has recognised a defective oscillator	▶ Replace the controller.
5	Self-test – relay defective	The self-test has recognised a defective relay	
6	Self-test – driver defective	The self-test has recognised a defective driver	
7	Self-test – current measurement defective	The current measurement does not function properly	▶ Switch mains voltage off/on. ▶ Carry a reset as described in Chapter 6.2. ▶ Replace the motor and/or controller if necessary.
8	Self-test – driver fault recognition defective	The power driver no longer outputs a fault – message	–
9	Hardware – encoder fault	The encoder is not connected correctly or is defective	▶ Check the encoder connection. ▶ Replace the motor or controller.
10	Hardware – voltage impossible	The supply voltage lies outside the permissible range	▶ Replace the power pack. ▶ Replace the controller if necessary.
11	Memory – RAM defective	A defect has been recognised in the RAM	▶ Replace the controller.
12	Memory – ROM defective	The programme memory has been changed or is defective	
13	Memory – EEPROM defective	The data memory is defective	

A fault state is indicated by flashing codes of the two LEDs on the controller:

First the red LED flashes rapidly, then it lights up continuously for approx. 20 seconds. During these 20 seconds the green LED flashes in accordance with the fault code x times. The cycle repeats until the user resets the fault.

Example: Green LED flashes 4 times, i.e. Fault code 4. This corresponds to a defective oscillator.

Red LED: 

Green LED: 



## 8 What to do if...?

Problem	Cause	Remedy
Sliding leaf only opens and closes slowly	Obstruction on the sliding path	▶ Remove obstacle and check sliding leaf for ease of movement.
	Floor guide area soiled	▶ Disconnect power supply (Emergency-stop switch or customer-accessible fuse). ▶ Clean floor guide area.
Sliding leaf opens and closes constantly	Obstruction on the sliding path	▶ Remove obstruction and check door leaf for ease of movement.
	Light beams or reflections Objects moving in the field of detection of the movement detector(s) (plants, paper, etc.)	▶ Check detection field of motion detector.
Sliding leaf only opens a crack	Obstruction on the sliding path	▶ Remove obstruction and check door leaf for ease of movement.
Sliding door does not open	Obstruction on the sliding path	▶ Remove obstruction and check door leaf for ease of movement.
	Movement detector misaligned or defective	▶ Check the movement detector. If necessary, notify a service technician.
	Stop activated	▶ Unlock the stop function.
Sliding leaf does not close	Obstruction on the sliding path	▶ Remove obstruction and check door leaf for ease of movement.
	Movement detector controls interruptedly	▶ Check the movement detector. If necessary, notify a service technician.
	No power supply (e.g. power failure)	See wiring diagram Perlan AUT-NT, Mat. No. 139997, Chapter Commissioning

## 9 Cleaning and maintenance



### CAUTION!

#### Danger of injury due to impact and crushing!

- ▶ The mounting, maintenance and repair work must be performed by properly trained personnel authorised by GEZE.
- ▶ Disconnect the drive from the power supply before carrying out work.
- ▶ Secure door leaves against accidental movement before carrying out work.
- ▶ Ensure that the drive cannot be activated via radio or contactor.

### 9.1 Cleaning

What is to be cleaned	How is it to be cleaned
Glass surfaces	▶ Wipe with a cold vinegar/water mixture; then dry.
Stainless surfaces	▶ Wipe with a non-scratching cloth.
Painted surfaces	▶ Wipe with water and soap.
Anodised surfaces	▶ Wipe with non-alkaline potassium soap (pH value 5.5 ... 7).

### 9.2 Maintenance



The owner must ensure that the system functions properly.

GEZE offers maintenance contracts with the following services:

- Inspect fastening elements for firm seating
- Carry out miscellaneous adjustment work
- Carry out operational checks
- Check the safety and control equipment of the door system
- Lubricate all the moveable parts

▶ If maintenance is required, notify the service technician.

### 9.3 Inspection by trained professionals

In accordance with the "Guidelines for power-operated windows, doors and gates" (BGR 232 and GUV 16.10) Section 6, power-operated doors must be inspected for safety by a trained professional before initial commissioning and at least once a year.

## 10 Technical data

Closing speed	0.20 m/s ... 0.28 m/s
Electrical connection values	110–230 V, 50–60 Hz in accordance with DIN IEC 38, max. 20 W
Connected load	Rated voltage 35 W
Fuse protection	Power connection 230 V, at customer 10 A
Current draw for external devices	24 V DC connection; max. 50 mA
Temperature range	0 °C ... +50 °C, for dry rooms only
Protection type	IP 20

We reserve the right to make changes

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