

GC 304 R



130830-03

**GEZE**

## Contents

Symbols and illustrations .....	3
Product liability.....	3
1 Safety .....	3
1.1 Intended use.....	3
1.2 Safety instructions .....	4
1.3 Safety-conscious working .....	5
1.4 Environmentally conscious working .....	5
2 Description.....	5
2.1 Supplied by GEZE .....	6
3 Work to be done before installation .....	6
3.1 Installing the drive .....	6
3.2 Positioning the sensor .....	7
4 Installation.....	8
4.1 Installation without accessories.....	8
4.2 Installation with ceiling installation set.....	10
4.3 Installation with rain cover .....	12
4.4 Cabling .....	13
5 Commissioning.....	14
6 Settings .....	15
7 Fault messages and troubleshooting .....	16
8 Technical data .....	18
9 Accessories / Spare parts .....	19

## Symbols and illustrations

### Warning notices

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

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











## Product liability

In compliance with the liability of the manufacturer for his 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 his statutory liability.

## 1 Safety

### 1.1 Intended use

The GC 304 movement detector may only be used for the activation of automatic sliding, curved sliding, folding, swing or revolving doors with GEZE drives.

					
GC 304 R	 (in the direction of emergency exit)				

## 1.2 Safety instructions

- The mandatory installation, maintenance and repair work must be performed by properly trained personnel authorised by GEZE. Any attempts at repairs by unauthorised personnel cancel the factory guarantee.
- The device may only be operated with safety extra-low voltage (SELV) with electrically protective separation.
- The country-specific laws and regulations are to be observed during safety-related tests.
- If unauthorised changes are made to the system, GEZE cannot be held liable in any way whatsoever for any resulting damage, and the approval for use in escape and rescue routes ceases.
- GEZE does not accept any warranty for combinations with third-party products.
- Only original GEZE parts may be used for repair and maintenance work.
- Observe the latest versions of directives, standards and country-specific regulations, in particular:
  - ASR A1.7 "Doors and gates"
  - DIN 18650 "Building hardware - Powered pedestrian doors"
  - DIN EN 16005 "Power operated pedestrian doorsets – Safety in use – Requirements and test methods"
  - Accident-prevention regulations, especially BGV A1 "General regulations" and BGV A2 "Electrical installations and equipment".
- The risk assessment and installation of the sensor and the door system in compliance with national and international regulations and door safety standards are the responsibility of the door manufacturer.
- Any uses of the device other than those described in this manual do not correspond to the approved purpose and cannot be guaranteed by the manufacturer.

### 1.3 Safety-conscious working

- Secure workplace against unauthorised entry.
- Watch the swivelling range of long system parts.
- Secure the weather hood/drive panels against falling.
- Attach safety stickers to glass leaves.
- Danger of injury with opened drive. Hair, clothing, cables, etc. can be drawn in by rotating parts.
- Danger of injury caused by unsecured crushing, impact, drawing-in or shearing spots!
- Danger of injury due to glass breakage!
- Danger of injury due to sharp edges in the drive!
- Danger of injury during installation through freely moving parts!

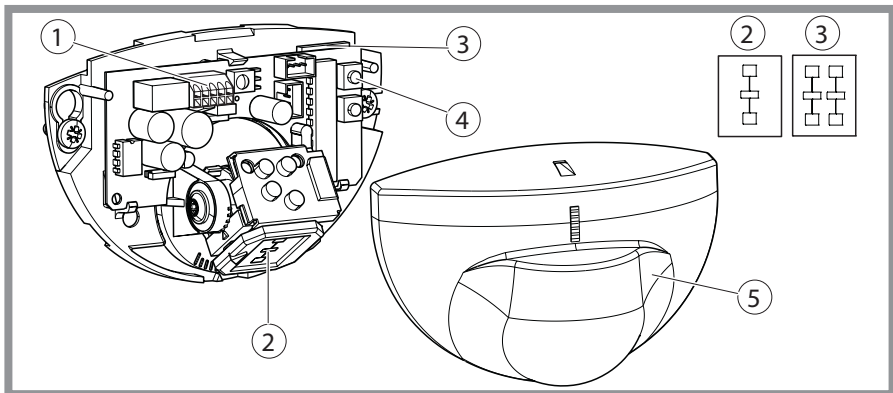
### 1.4 Environmentally conscious working

- When disposing of the door system, separate the different materials and have them recycled.

## 2 Description

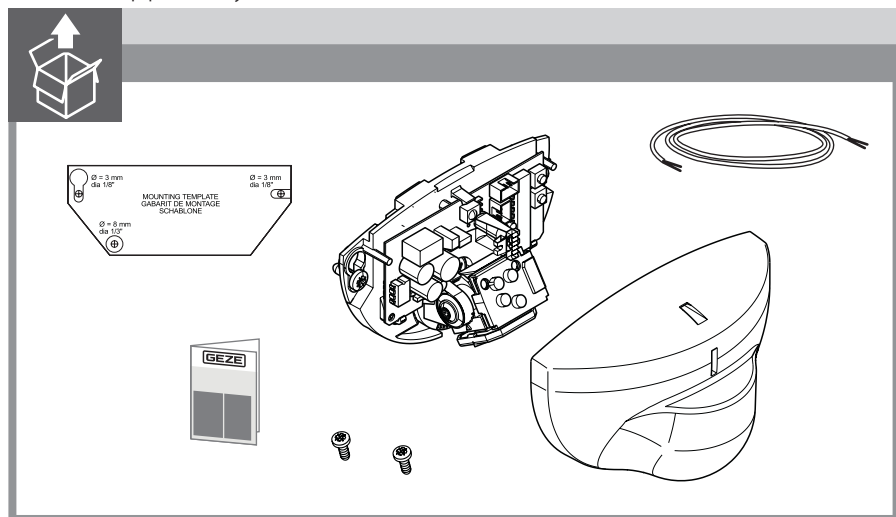
The GC 304 R radar detector has been designed for use as an opening pulse generator on automatic doors. Due to the Doppler effect, the sensor detects movements, whereby a distinction is made between approach and distance to the detector. It is not possible for several sensor systems to influence each other and result in a hazard.

Material number GC 304 R: 130651



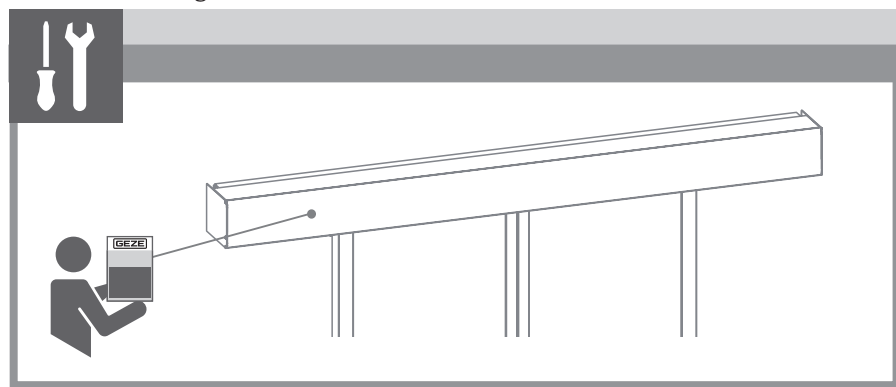
- |   |                                |   |              |
|---|--------------------------------|---|--------------|
| 1 | Connection terminal            | 4 | Push button  |
| 2 | Radar antenna for wide field   | 5 | Weather hood |
| 3 | Radar antenna for narrow field |   |              |

## 2.1 Supplied by GEZE



## 3 Work to be done before installation

### 3.1 Installing the drive

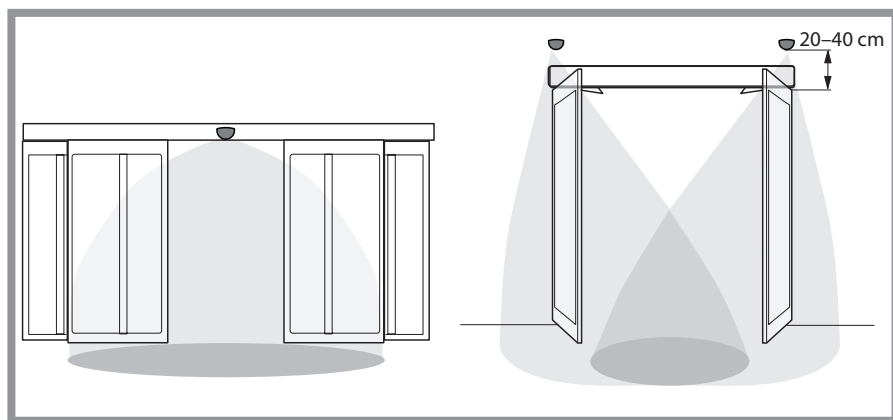


- Make sure that the weather hood of the drive is fitted correctly and earthed.

### 3.2 Positioning the sensor

The GC 304 is used as an activation sensor for automatic doors.

- The sensor must be mounted above the door in the case of sliding, curved sliding, folding and revolving doors. Ideally, the flow of people will walk directly towards the sensor. If the scanning area does not cover the entire opening width or if the flow of people from different directions is to be expected, several GC 304 R sensors can be used.
- In the case of swing doors the sensor must be mounted on the hinge side above the swivelling axis.



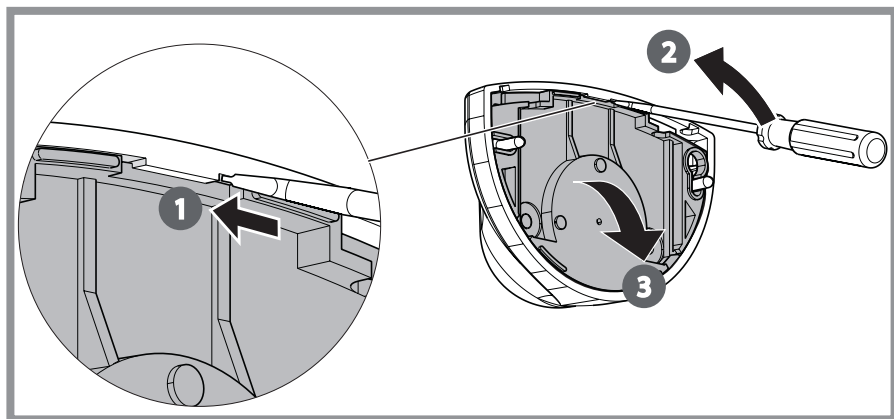
## 4 Installation



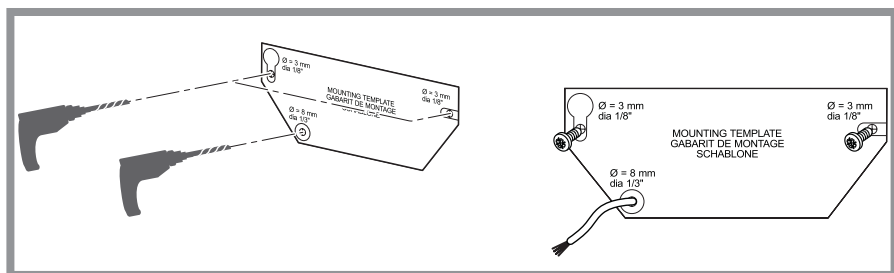
- ▶ Avoid extreme vibrations.
- ▶ Do not cover the sensor.
- ▶ Keep away from fluorescent lamps.
- ▶ Keep away from moving objects.

### 4.1 Installation without accessories

- ▶ Remove the rear panel.

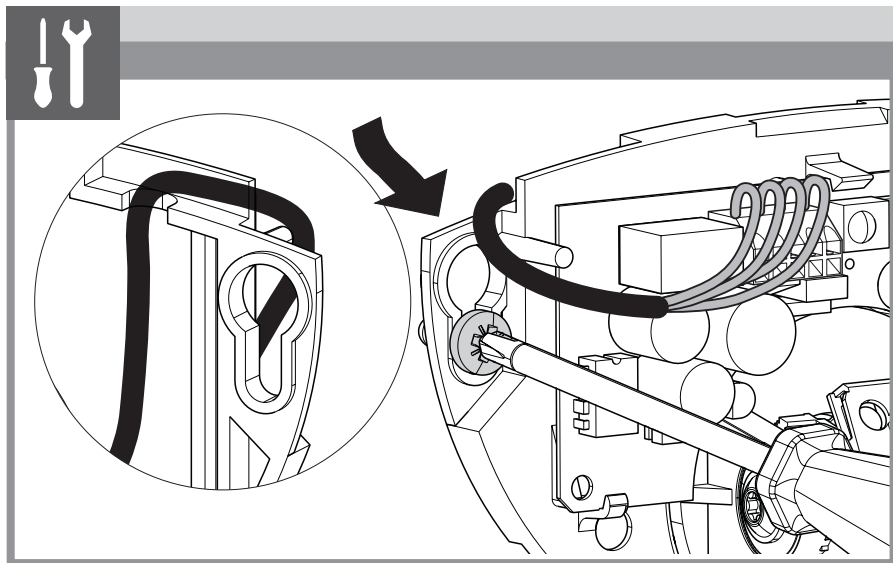


- ▶ Glue the sensor drilling template in place, drill holes for cables and screws.



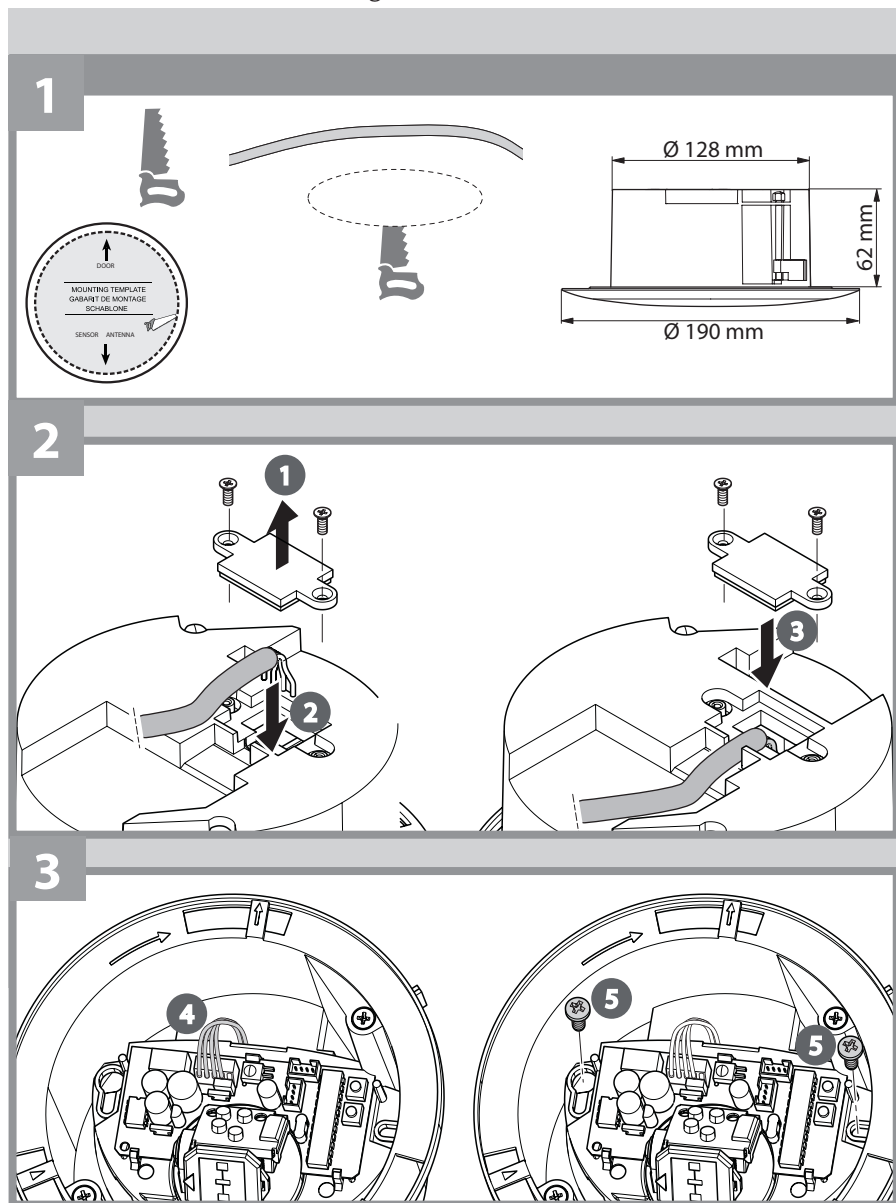


- Insert the cables and route them properly.

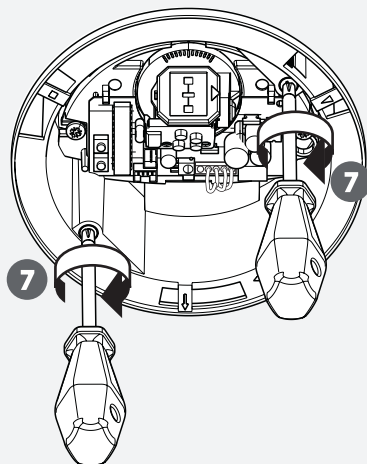
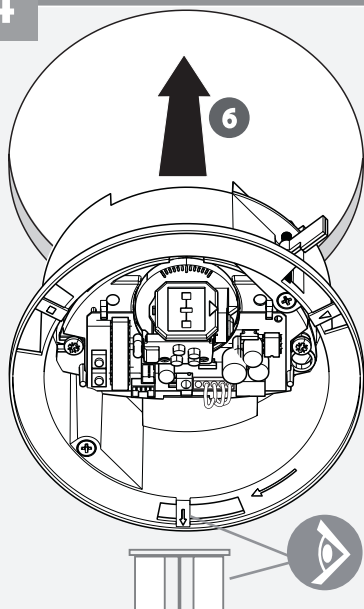


- Wire up, see Section “4.4 Cabling” on page 13.
- Attach the weather hood.

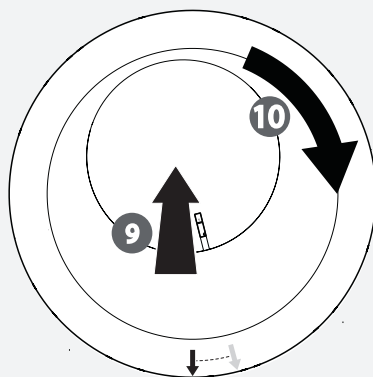
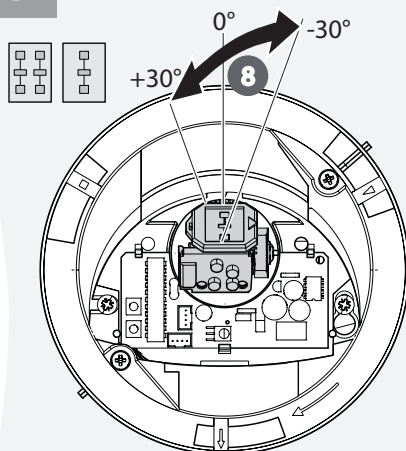
## 4.2 Installation with ceiling installation set



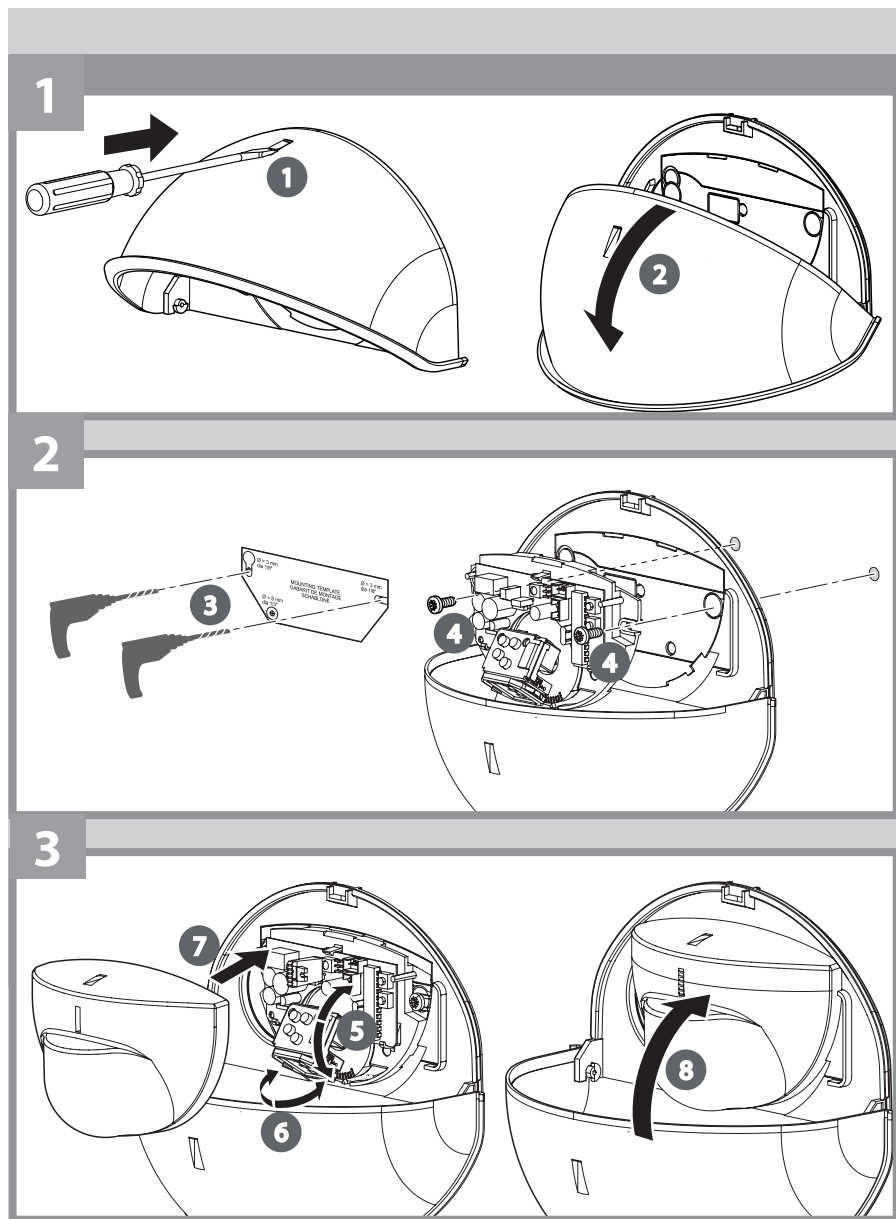
4



5



## 4.3 Installation with rain cover

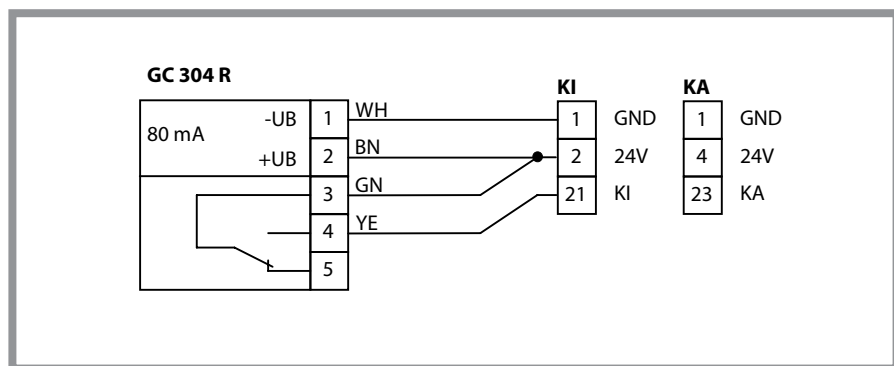


## 4.4 Cabling

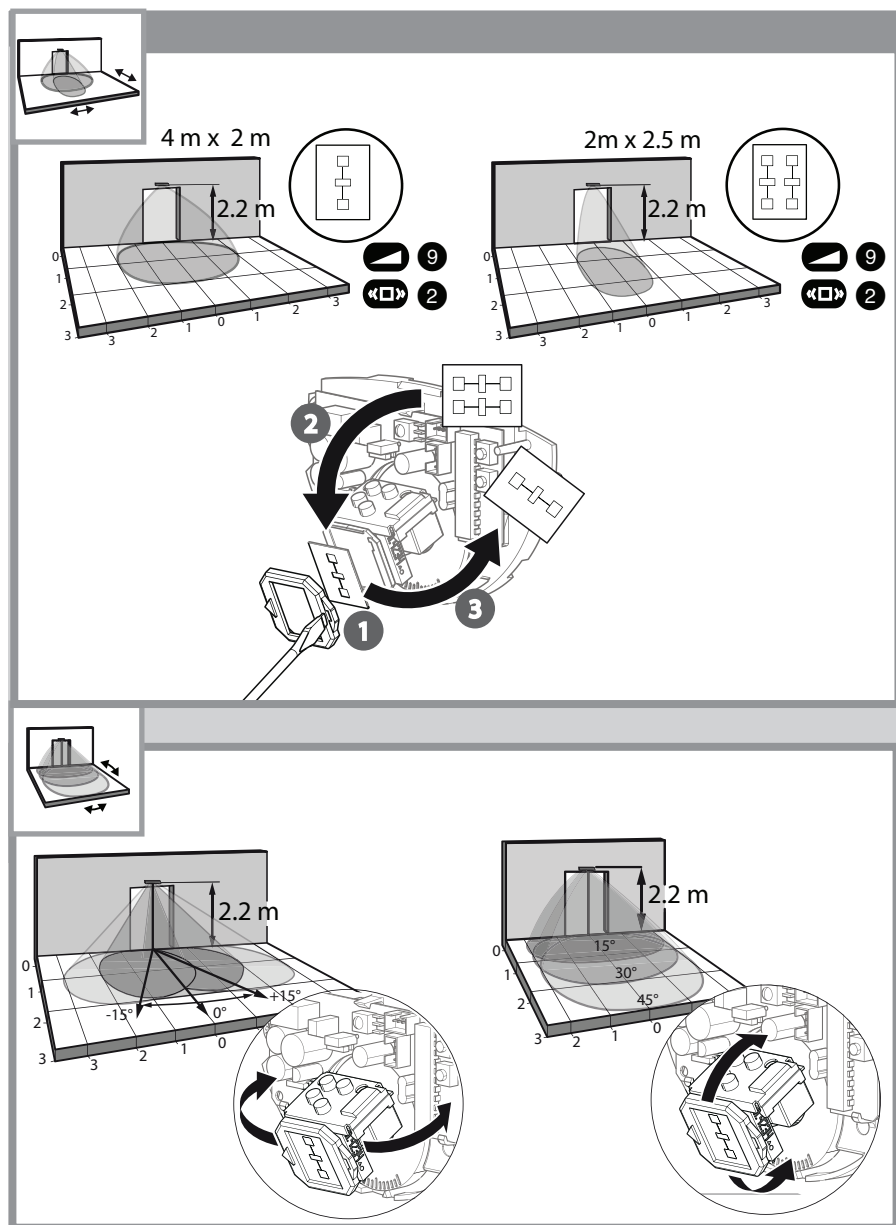
- Note the wiring diagrams for the drives.

Upon activation, the output of the GC 304 R is closed (24V applied to the KI input).

- Set the type of contact for KI and KA to “normally opened contact”.




























## 5 Commissioning



## 6 Settings

- Use the remote control and/or push button to configure the sensor.

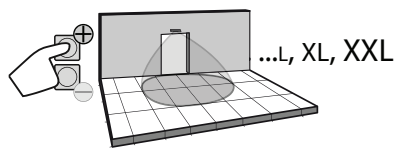
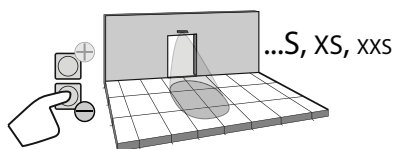
                											
Area size		XXS	XS	S	>	>	>	>	L	XL	XXL
Immunity filter		low	normal	high	>	>	>	>	>	highest	
Detection of direction		bi	uni	uni EM	uni WEG	EM & WEG	bi: no detection of direction, uni: detection of direction towards the sensor, uni EM: detection of direction even in the case of persons with limited mobility, uni WEG: detection of direction away from the sensor				
Output config.		Normally opened contact	Normally closed contact								
Hold-open time		0.5 sec	1 sec	2 sec	3 sec	4 sec	5 sec	6 sec	7 sec	8 sec	9 sec
Installation height		< 3 m	> 3 m								
Door controller		auto	open	closed	open: the sensor detects without interruption, the LED is on closed: the sensor is waiting and not detecting, the LED is off						

 Factory setting

### Resetting to factory settings



### Setting area size



### Access code

An access code (1 to 4 digits) is recommended for sensors which are installed close together.

To save the access code



To delete the access code



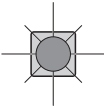
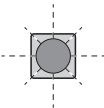
After the access code has been saved, this code must always be entered to unlock the sensor.

If you have forgotten the access code: Switch the power supply off and on. After switch-on you have 1 minute to unlock the sensor without entering the access code.

## 7 Fault messages and troubleshooting

Display	Effect	Cause	Elimination
	The door remains closed. The LED is off.	The power supply is off.	► Check cabling and voltage of the power supply.
		The door controller parameter (F2) is set to value 3 (closed).	► Set the door controller parameter (F2) to value 1 (automatic).
	The door does not react as expected.	Incorrect output configurations selected at the sensor.	► Check the output configuration of all sensors connected to the door controller.
	The door opens and closes in cycles.	The sensor sees the door movement or is disturbed by vibrations.	► Check whether the sensor has been fixed in place correctly.
			► Check whether uni mode has been selected.
			► Increase the angle of inclination.
			► Increase the immunity filter.
			► Reduce the area size.



Display	Effect	Cause	Elimination
	The door opens for no apparent reason.	It is raining and the sensor detects the movement of the rain drops.	<ul style="list-style-type: none"> <li>▶ Check whether uni mode has been selected.</li> <li>▶ Increase the immunity filter.</li> <li>▶ Install a rain cap.</li> </ul>
		In metallic environments the sensor detects objects that are not in the detection area.	<ul style="list-style-type: none"> <li>▶ Change the antenna angle.</li> <li>▶ Reduce the area size.</li> <li>▶ Increase the immunity filter.</li> </ul>
		In interlocking door systems the sensor detects the movement of the opposite door.	<ul style="list-style-type: none"> <li>▶ Change the antenna angle.</li> <li>▶ Replace the antenna.</li> <li>▶ Increase the immunity filter.</li> </ul>
	The LED flashes quickly following unlocking.	The sensor requires an access code for unlocking.	<ul style="list-style-type: none"> <li>▶ Enter the access code.</li> <li>▶ Forgotten the access code? Switch the power supply off and on to unlock the sensor.</li> </ul>
	The sensor does not react to the remote control.	The batteries are not sufficiently charged or not inserted correctly.	▶ Check and/or replace the batteries.
		The remote control is not aligned to the sensor.	▶ Align the remote control to the sensor.


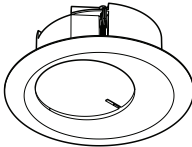
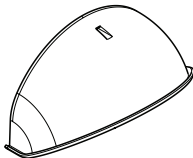
## 8 Technical data

Technology:	Hyper-frequency and microprocessor
Transmission frequency	24.150 GHz
Transmission power:	< 20 dBm EIRP
Density of transmission power	< 5 mW/cm <sup>2</sup>
Detection mode:	Movement
Min. detection speed	5 cm/s
Power supply:	12 V to 24 V AC $\pm 10\%$ ; 12 V to 30 V DC +30 % / -10 %
Mains frequency:	50 Hz to 60 Hz
Power consumption	< 2 W
Output	Relay (potential-free relay contacts)
▫ Max. switching voltage	42 V AC / DC
▫ Max. switching current:	1 A (resistive)
▫ Max. switching power	30 W (DC) / 60 VA ( AC)
Installation height	from 1.8 m to 4 m
Protection rating	IP54
Temperature range	-20 °C to +55 °C
Dimensions	120 mm x 80 mm x 50 mm (W x H x D)
Angle of inclination	0° to 90° vertical -30° to +30° at the side
Material	ABS
Weight	215 g
Cable length	2.5 m
Conformity to standards	RED Directive 2014/53/EU, RoHS 2 2011/65/EU



Only for EU countries: In compliance with the European Directive 2012/19/EU concerning waste electrical and electronic equipment (WEEE)

## 9 Accessories / Spare parts

		Material no.
Remote control		100061
Ceiling installation kit		130653
Rain cover		130654

## **Germany**

GEZE GmbH  
Niederlassung Süd-West  
Tel. +49 (0) 7152 203 594  
E-Mail: leonberg.de@geze.com  
GEZE GmbH  
Niederlassung Süd-Ost  
Tel. +49 (0) 7152 203 6440  
E-Mail: muenchen.de@geze.com

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

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

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

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

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

## **Austria**

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

## **Baltic States –**

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

## **Benelux**

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

## **Bulgaria**

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

## **China**

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

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

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

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

## **France**

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

## **Hungary**

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

## **Iberia**

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

## **India**

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

## **Italy**

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

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

## **Korea**

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

## **Poland**

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

## **Romania**

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

## **Russia**

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

## **Scandinavia – Sweden**

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

## **Scandinavia – Norway**

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

## **Scandinavia – Denmark**

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

## **Singapore**

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

## **South Africa**

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

## **Switzerland**

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

## **Turkey**

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

## **Ukraine**

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

## **United Arab Emirates/GCC**

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

## **United Kingdom**

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

## **GEZE GmbH**

Reinhold-Vöster-Straße 21–29  
71229 Leonberg  
Germany

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

