

Instruction

V-Gate



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1 Introduction

1.1 Product name and type designation

Product name: V-Gate
Type designation: VPSTAXXX

1.2 Information on the manufacturer

Name: Schake GmbH (Schake-Vector)
Adress: Eckeseyer Str. 195, 58089 Hagen
E-Mail: info@schake-vector.com
Telephone: +49(0)2331 69785- 0
Website: <https://schake-vector.com/>

1.3 Target group

These operating instructions are intended for the following trained personnel:

- Installation personnel
Personnel who install and set up the mobile sliding gate (V-Gate) on site.
The motor settings are made by the manufacturer (Schake GmbH). Further information on this is described in chapters 5 + 6 Installation and commissioning.
- Machine operator
Any person who opens, closes and passes through the V-Gate.
- Maintenance personnel
The V-Gate is serviced at certain intervals by trained inspection personnel using the inspection logbook.

2 Safety

2.1 Intended use

The V-Gate can be opened or closed by a hand-held transmitter as well as by an RFID access control. The V-Gate is within sight of the person operating it.



figure 1: mobile sliding gate (V-Gate)

2.2 Foreseeable misuse

The V-Gate must not be used for purposes other than intended. The following foreseeable misuses are not permitted:

- Climbing up gate elements
- Climbing on the moving parts
- Independent repair or conversion work
- Deactivating the light barrier
- Incorrect positioning of the V-Gate or the opposite column
- Reaching into and moving moving parts
- Unsupervised use
- Use in strong winds
- Use with children in the gate area
- Reprogramming the motor
- Stopping and placing parts in the opening and closing area during operation
- Operation outside the end position

2.3 Symbols and notes

The manual may use the following symbols, signal words and notes to warn of hazards and to ensure safe operation. The symbols are shown and explained below.



*figure 2: Warning
Danger of crushing*

WARNING

This signal word indicates an imminent danger due to crushing of the hands. Failure to observe it can lead to serious injuries. The signs are located on the folding gate elements.

2.4 Safety instructions

Read and follow the instructions in this manual to operate this V-Gate safely. Do not carry out any independent modifications to the electronic and hardware components or repairs to the unit.

Pull-in points are protected by covers.

Shearing points are marked by warning signs.

2.5 Special safety instructions

2.5.1 Transport

The V-Gate is delivered in compact transport dimensions of 2x1.2x2.4m, with the small platform to be secured on the large platform. It is important to ensure that the platform is adequately secured with tension belts, e.g. crane eyes can be used for this purpose. Loading can be done with a forklift truck.



Abbildung 3: Transport (fixing the small platform)

2.5.2 Operation

During operation, the points in 2.2 Foreseeable misuse must be observed.

2.6 Emergency behavior

If the V-Gate fails, the motor housing can be unlocked via a cylinder lock. The lever allows the gear wheel to move freely so that the gate elements can be moved manually. To disconnect the V-Gate from the power supply, the Cee plug can be pulled out.

2.7 User's duty of care

To ensure safe operation, the user of the V-Gate must fulfil the following obligations:

- Read and follow the operating instructions

3 Product description

3.1 General function



figure 4: V-Gate folded in

- Barricading of areas

Areas of application of the V-Gate:

- On the construction site
- In the event area
- On exhibition grounds
- Company premises
- Etc.

3.2 Components

The V-Gate consists of the following components:

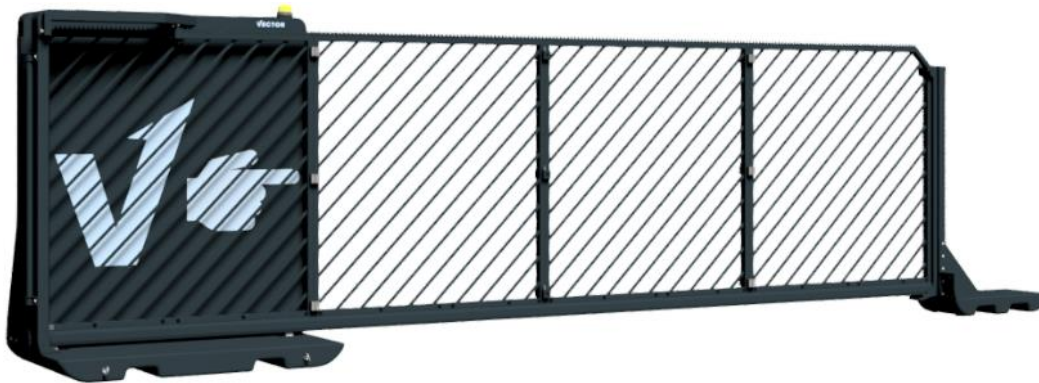


figure 5: V-Gate mounted

- 4 gate elements
 - The V-Gate consists of 4 gate elements, each of which is connected with 3 hinges. These elements can be folded together for transport purposes.
 - In addition to the hinges, there are 3 closers at the folding points, whereby the middle closer can be locked by means of a cylinder lock.
 - For more details, see chapters 5 + 6 Assembly and commissioning.
- Concrete platform
 - The platform has the dimension of 2x1,2m with a weight of 1,25t.
 - When setting up the platform, a spirit level is used as an aid to levelling.
 - The platform can be aligned from above via 4 threaded feet.
 - The individual components are mounted on the platform with safety screws.
- CEE plug
 - 230V AC power supply.
- Forklift pockets/ crane eyes
 - The V-Gate can be transported via forklift pockets and crane eyes (use at your own risk).
- Light barrier
 - The light barrier interrupts the movement of the V-Gate when opening or closing.
 - A battery-operated transmitter is attached to the entry column.
- Signal light
 - As soon as the V-Gate is in motion, this is indicated by a signal light.
- Protective features
 - Passive protective strips are fitted to the main and secondary closing edges.
- Climb-over protection
 - In order to protect the V-gate from unauthorised climbing over, the individual gate elements are equipped with climbing-over protection.

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- Engine



figure 6: Engine on concrete platform

For adjustment of the motor to the gate elements, the supplied operating instructions of the motor manufacturer must be observed.

- Operating voltage: 24V DC
- Control unit and remote control: Teach-in of hand-held transmitters
- Power cut-off: Adjustable V-gate stops/reverses
- Protection class: IP44
- Speed: 12.6 m/min
- Emergency release
- Gear wheel: Height adjustable
- Guide rollers/ guide rail
- Drive-in column
 - A second platform with transmitter of the light barrier as well as overrun shoe.
 - This platform can also be adjusted via threaded feet.
- Fence modules
 - Fence modules, such as construction fence modules or double-mesh rod fence modules, can be attached to the sliding gate.

3.3 Control elements and their function

The V-Gate has the following control elements:

- Standard:
 - Adjustable feet
 - Height-adjustable overrun shoe
- Optional:
 - Closing by remote control (hand-held transmitter)
 - RFID reader (one-sided/ double-sided)
 - Access terminal (with web software + screens)
 - Integration of customer software

3.4 Technical Data

3.4.1 Dimensions and weight

Table 1: Dimensions and weight

| Parameter | Unit | Value |
|------------|------|-------------|
| Length (L) | [mm] | 2000 |
| Width (W) | [mm] | 1200 (8500) |
| Height (H) | [mm] | 2450 |
| Weight | [Kg] | 1850 |

3.4.2 Electrics

Table 2: Electrics – Power supply

| Parameter | Unit | Value |
|-----------------------|--------|-------|
| Main voltage (U) | [V AC] | 230 |
| Operating voltage (U) | [V DC] | 24 |

4 Transport and storage

4.1 Transport

The V-Gate is delivered in a compact transport size of 2x1.2x2.4m with the small platform secured to the large platform. It is important to ensure that the platform is adequately secured with tension belts, e.g. crane eyelets can be used for this purpose. Loading can be done with a forklift truck.

4.2 Storage

The following specifications must be met when storing the V-Gate

Table 3: Storage - Temperature

| Parameter | Unit | Value |
|------------------|------|-------|
| min. Temperature | [°C] | -20 |
| max. Temperature | [°C] | +50 |

5 Installation and assembly

5.1 Requirements for the person carrying out the work

Installation and assembly may only be carried out by technically trained personnel.

5.2 Requirements for the installation site

The V-Gate is used in outdoor areas. It must be ensured that the gate is set up on level ground. The 4 adjustable feet on the two platforms of the main section and the inlet section can be used to compensate for slight differences in height.

In addition, the V-gate must be level and may be set up in wind class 3 at the most.

It must be ensured that no valuables, persons or vehicles are in the vicinity, especially in windy conditions.

Furthermore, the following specifications must be met:

Table 4: Installation - operating temperature

| Parameter | Unit | Value |
|------------------|------|-------|
| min. Temperature | [°C] | -20 |
| max. Temperature | [°C] | +50 |

5.3 Mounting

The assembly of the V-Gate on the platform is carried out by the manufacturer (Schake GmbH). The installation is carried out on site by the customer.

6 Commissioning

6.1 Requirements for the person carrying out the commissioning

Commissioning may only be carried out by technically trained personnel.

6.2 Switching on/off

The V-Gate is supplied with 230 V alternating current via a CEE plug attached to the side. An extra on/off switch is not provided.

The plug must normally only be removed when the V-Gate is fully extended (in the end column), as the motor remembers the corresponding position.

When connecting the power supply (230V AC) via a CEE adapter, the following must be observed:

- Make sure that the mains is protected by a 2-pole residual current circuit breaker
- The CEE|Safety plug or CEE|CEE adapters can be used. It must be ensured that these are supplemented by a personal protection switch

6.3 Set-up

The following steps are carried out for set-up:

1. place the V-Gate in the desired position (without being a hazard to the surroundings/ set up only on suitably level terrain).
2. set-up direction

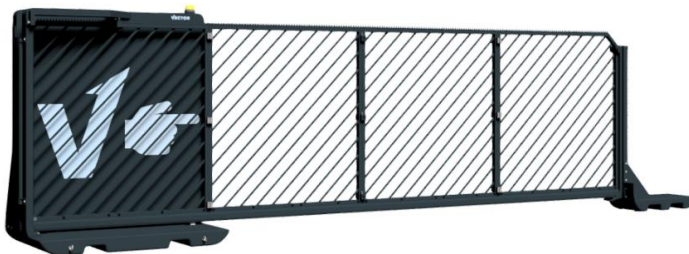


figure 7: V-Gate set-up direction

- a. As can be seen in the illustration, the V-Gate is in the closed position.
- b. The V-Gate opens on the left side.
- c. The side shown here is the side facing the public area.
3. setting up the entrance shoe
 - a. The main platform and that of the inlet shoe must be aligned with each other using the adjustable feet. It is important that the sensor is exactly opposite the opposite sensor. This can be checked using an LED on the circuit board under the motor cover. 2 LEDs must light up, one LED goes out in case of interruption.
 - b. The sheet metal of the actual entry shoe can additionally be aligned by means of the slotted holes in such a way that the roller of the gate body rests lightly in the end position (so that the power cut-off does not become active).
4. levelling the two platforms
 - a. With the help of the 4 threaded feet.
 - b. Adjust the threaded feet from above.
 - c. In addition to point 3, it is important that the gate itself is level.

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5. depending on the configuration: connect the construction fences or double bar fences.
6. use of the gate is only permitted if a fence is mounted on the left-hand secondary closing edge, as this serves as protection against intrusion.
7. folding out the individual gate elements

The following sequence must be observed:

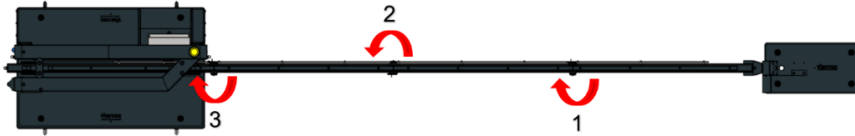


figure 8: Mounting V-Gate – Sequence

Sequence 1 Unfolding the gate elements: Sequence 3-2-1 and
Sequence 2 Folding in the gate elements: Sequence 1-2-3.

Sequence 1 explained:

- a. Unlock the first gate element by lifting the lever shown in figure 7.
- b. Open the first door element.
- c. Place the latch in the contour provided in the tube.



figure 9: Locking mechanism for gate elements

- d. Engage the locks shown in figure 8 until the door elements are exactly in line.



figure 10: Locking the gate elements

- e. Repeat this process on the other gate elements.
- f. Lock each of the centre locks using the keys provided.
- g. Procedure 1 is exactly the same as procedure 2, but in reverse order.

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8. Connect the power supply (230 V AC) using a CEE coupling.
9. function test and visual inspection for hazards.
 - a. In particular, make sure that sufficient space has been provided in the direction in which the door is to be opened.

If you have any further questions, contact the manufacturer (Schake GmbH).

6.4 Type plate

The type plate for the V-Gate is attached to the main platform via light barrier.

7 Operation

7.1 Notes on safe operation

The following points must be given to ensure safe operation:

- Avoid misuse (2.2 Foreseeable misuse)
- See set-up instructions (6.3 Set-up)

7.2 Operating elements

Four different variants serve as operating elements:

- Operation by hand-held transmitter
- Single- or double-sided RFID reader
- Access control terminal with web software
- Integration of customer access control

8 Maintenance and servicing

8.1 Requirements for the person carrying out the work

Maintenance and servicing may only be carried out by technically trained personnel.

Based on an inspection book, inspections of the V-Gate are carried out at certain intervals.

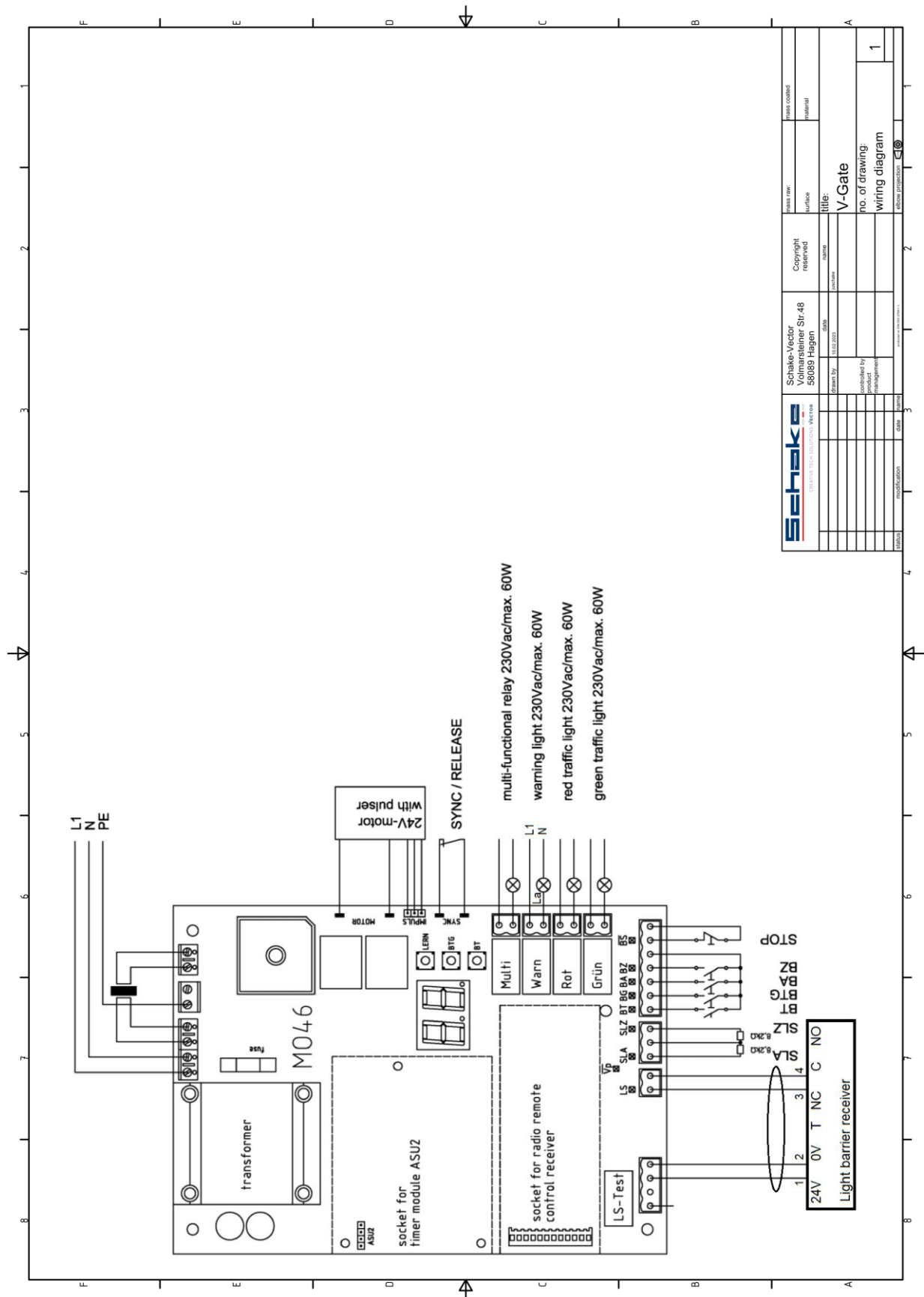
9 Fault elimination

In case of malfunction: Consult the manufacturer (Schake GmbH).

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10 Appendix

10.1 Wiring diagram motor



| | | | |
|--|--------------|---------------------------|-----------------------------------|
| Schako-Vector Volmarsteiner Str.48 58089 Hagen | | Copyright rot/red | Mass drawn Surface National |
| Drawn by L.02.2023 | date | no. of drawing: V-Gate | no. of drawing: wiring diagram |
| status | modification | date | author projection |
| 1 | | | |

10.2 Conformity statement Tüv

Konformitätsaussage Certificate of Conformity



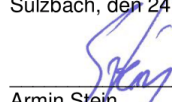
Hiermit wird bescheinigt, dass die nachfolgend beschriebene Maschine den grundlegenden Sicherheits- und Gesundheitsschutzanforderungen der Maschinenrichtlinie 2006/42/EG sowie der Richtlinie zur Elektromagnetischen Verträglichkeit 2014/30/EU entspricht.

This is to certify that the following machine meets the essential health and safety requirements of the Machinery-Directive 2006/42/EC and the EMC directive 2014/30/EU.

| | |
|--|--|
| Beschreibung: <i>description</i> | Kraftbetätigtes Schiebeter V-Gate |
| Seriennummer: <i>serial-no.</i> | VPSTA0001 |
| Hersteller: <i>manufacturer</i> | Vector Creative Tech Solutions |
| Baujahr: <i>year of construction</i> | 2022 |
| Zertifikats-Nr.: <i>certificate no.</i> | 6349129 |
| Angewandte Normen: <i>applied standards,</i> | |
| EN ISO 12100 2010 | Sicherheit von Maschinen - Allgemeine Gestaltungsleitsätze Risikobeurteilung und Risikominderung |
| EN 60204-1 2006 | Sicherheit von Maschinen - Elektrische Ausrüstung von Maschinen Teil 1: Allgemeine Anforderungen |
| EN ISO 13849-1 2016 | Sicherheit von Maschinen - Sicherheitsbezogene Teile von Steuerungen - Teil 1: Allgemeine Gestaltungsleitsätze |
| EN ISO 13850 2016 | Sicherheit von Maschinen - Not-Halt-Funktion - Gestaltungsleitsätze |
| EN ISO 13857 2008 | Sicherheit von Maschinen - Sicherheitsabstände gegen das Erreichen von Ge- fährdungsbereichen mit den oberen und unteren Gliedmaßen |
| EN ISO 13854 2019 | Sicherheit von Maschinen - Mindestabstände zur Vermeidung des Quetschens von Körperteilen |
| EN 614 2009 | Sicherheit von Maschinen - Ergonomische Gestaltungsgrundsätze - Teil 1: Be- griffe und allgemeine Leitsätze |
| EN 12453 2022 | Tore - Nutzungssicherheit kraftbetätigter Tore - Anforderungen und Prüfverfahren |
| EN 12604 2021 | Tore - Mechanische Aspekte - Anforderungen und Prüfverfahren |

Geschäftsfeld Aufzugs-, Fördertechnik und Maschinensicherheit
der SGS-TÜV Saar GmbH

Sulzbach, den 24.11.2022


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6349129Schake.docx, Rev 5 / 10.2016

10.3 Conformity declaration

Description: power-operated gate
Type: V-Gate
Manufacturer: Schake GmbH (Schake-Vector)
Eckeseyer Str. 195
Date: 24.11.2022



EG-Declaration of Conformity

The manufacturer / distributor

Schake GmbH (Schake-Vector)
Eckeseyer Str. 195

hereby declares that the following product

Product designation: power-operated gate (V-Gate)
Year of manufacture: 2022
Serial number: VPSTAXXX

Description:

Mobile power-operated sliding gate on a platform. By folding 4 gate elements, the gate is brought to a compact transport size. The entire structure can be transported by forklift truck. The gate is supplied with 230 V AC via a CEE plug.

complies with all relevant provisions of the applied legal regulations (hereinafter) - including their amendments in force at the time of the declaration. The manufacturer bears sole responsibility for issuing this declaration of conformity. This declaration refers only to the machine in the condition in which it was placed on the market; parts and/or interventions subsequently fitted by the end user are not taken into account.

The following legal regulations have been applied:

Machinery Directive EG-RL 2006/42/EG

The protection objectives of the following further legal regulations were complied with:

2006/42/EG with amendments (9.GPSGV), 2014/35/EG (1.GPSGV),
2014/30/EG (EMV-Gesetz), 2014/53/EU (FuAG)

The following national or international standards (or parts/clauses thereof) and specifications have been applied:

EN ISO 12100, EN 12453, EN 12604, EN ISO 13857, EN ISO 13854,
EN ISO 13849, EN ISO 13850, EN 614, EN 60204 T1

Name and address of the person authorised to compile the technical file:

Gerald Schake
Schake GmbH
Eckeseyer Str. 195
58089 Hagen

Location: Hagen, Eckeseyer Str. 195
Date: 25.11.2022

Signature (Gerald Schake)