

Operating Instructions

## Designa Connect DIB 600 PREMIUM

### Digital Information Board

Series: CONNECT

Version: 1.00

Identity no.: DOCEN04210



# Original Operating Instructions

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# 1 General

## 1.1 Information regarding the operating instructions

These operating instructions are intended for operators of the ABACUS parking management system and provide crucial information on handling of device DIB 600 PREMIUM.

These operating instructions describe measures *see main chapter 12 Maintenance on page 45 and the sections of the individual modules* which have to be carried out at regular intervals to ensure reliable and trouble-free operation of the device DIB 600 PREMIUM. The required work should only be carried out by Designa trained operating personnel, who are familiar with the operating instructions and safety information.

For all other tasks, we recommend special Designa training courses or separate specialist instruction manuals for trained personnel are available (e.g. special maintenance works).

Certain tasks have to be carried out by specialized staff or specially trained Designa electrical technicians or electrical technicians of Designa trained and authorized partners. These tasks are marked accordingly.

- ⇒ Read the operating instructions carefully before starting any work.
- ⇒ Pay careful attention to the safety instructions.
- ⇒ Use the table of contents to find the sections which are important for your work routines.
- ⇒ Keep the operating instructions for later use, well accessible to the personnel at all times.
- ⇒ When passing the device on to third parties, the operating instructions must also be handed over.

### Note on gender equality in language

All personal designations used in this operating manual apply equally to all genders. To improve readability, gender-specific language has been avoided. All references to persons are intended to be understood as gender-neutral.

### Digital operating instructions

The original operating instructions are available in digital form. It contains the necessary information for the installation, commissioning, operation, maintenance, servicing and disposal of the device described in these instructions.

The operating instructions can be downloaded via a QR code located inside the device. The operating instructions are also available in the Designa eCademy at <https://designa-ecademy.openolat.com/>.

All relevant information from the operating instructions must be available to the relevant personnel for each life cycle. The operator is responsible for providing this information.



- Save the instructions separately and print them out to ensure that they are available in case of data loss.
-

## Designa eCademy



Discover information about courses, further documents, and all the latest news in the Designa eCademy.

After registering you can download the operating instructions in the electronic read-only media format.

## Printed operating instructions

Please contact Designa for the printed operating instructions.

For the address, see invoice, delivery note or imprint.


## 1.2 Explanation of signal words and symbols


### Safety messages

Following signal words are used to identify the safety messages and property damage messages:

Pay careful attention to the safety messages in order to prevent accidents as well as bodily injuries and property damage.


 <b>DANGER</b>
Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

 <b>WARNING</b>
Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

 <b>CAUTION</b>
Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

<b>NOTICE</b>
Indicates a potentially harmful situation which, if not avoided, could lead to property damage.

### Hints and recommendations

 ... highlights useful hints and recommendations as well as information for an efficient and trouble-free operation.

 ... highlights valid information for the barcode technology.

### Functional symbols and designations

The following symbols and designations are used in the instructions:

–	Instructions specified in warnings
■	List
1.	Step-by-step instructions
⇒	Instructions without fixed sequence
➤	Result of the action
<b>bold</b>	Terms in bold are explained in the glossary
<i>italic</i>	Italic text refers to a component in a figure or a different chapter of these instructions or related instructions.

## 1.3 Consumables, spare parts and accessories

Designa offers comprehensive consumables, spare parts and accessories for the device DIB 600 PREMIUM.



These operating instructions mention some consumables. Please refer to your spare parts catalogue and consumables catalogue for further consumables, accessories and spare parts.

---

## 1.4 Customer service & service

Your Designa Service is available to you for technical information. For the address, see invoice, delivery note or imprint.



In order to enable fast handling, note the data of the type plate such as device type, order number, identity number, serial number, etc. before calling.

---

## 2 Safety

### 2.1 Intended use

The device DIB 600 PREMIUM is part of the ABACUS parking management system.

ABACUS is an integrated system that controls the entrance/exit, time and cost of parking in protected areas such as car parks, airports or similar places. The automated parking system ABACUS is designed to give a service (parking) in exchange for money.

The DIB 600 POST is a combination of a digital information board with an integrated connection solution and a mounting stele.

The use of digital information boards in the form of displays in parking space management offers the possibility of displaying specific digital content such as advertising videos, recognised number plates, personalised texts or information on current tariffs. In this way, digital media content is passed on to car park customers on an individual basis.

The advertising displays can be used both indoors and outdoors. Since all connections required for the operation of digital information boards are located in the DIB 600 PREMIUM, no additional devices are required for operation.

It is strongly recommended that you only use displays approved by Designa, original Designa spare parts and consumables recommended by Designa.

### 2.2 Non-intended use

#### Non-intended use

#### **WARNING**

##### **Risk of injury from non-intended use!**

Every non-intended use can cause severe or lethal injuries.

- Only use the device DIB 600 PREMIUM as intended.
- Read the operating instructions carefully and pay careful attention to the safety instructions.

The device DIB 600 PREMIUM must not be used in potentially explosive atmospheres.

The device DIB 600 PREMIUM is not approved for connection to other third-party devices or screens.

No accessories may be connected or installed that are not expressly specified and approved by Designa.

Independent modifications or extensions to the device are not permitted.

Use as a storage space is not permitted.

The use of unsuitable media (consumables, cleaning agents) is not permitted.

Use by untrained personnel is not permitted.

All uses not described under intended use are prohibited.

Claims for damages resulting from improper use are excluded. The operator is liable for all damages resulting from improper use.

## 2.3 Safety on site



Fig. 1: Safety marking on the road

The operator has to pay attention to the following measures in order to guarantee safety in the car park area:

- ⇒ Always keep children away from system devices.
- ⇒ Select easily recognizable warning colours and signs used in the car park area.
- ⇒ Provide separate footpaths next to entrances and exits and mark pedestrian areas (see figures below) to ensure that pedestrians do not have to walk near entrances and exits and on the roads.
- ⇒ Make sure that there are sufficient fully visible signs around the car park site. Keep signs clean and position them so that they can be read easily.
- ⇒ Use additional safety barriers (e.g. safety cones) to close off entrances and exits when carrying out work there and wear safety clothing in easily recognizable warning colours.
- ⇒ Make sure that the danger area of the devices cannot be accessed by any unauthorized persons, and in particular not by children, under any circumstances.

If barriers are installed in your ABACUS system the operator should pay attention to the following measures:

- ⇒ Provide all footpaths with a sufficient distance to the lanes and the car park barriers. Observe national regulations.
- ⇒ Observe the safety instructions in the barrier's operating instructions.

## 2.4 Specialists and operating personnel

### **WARNING**

#### **Risk of injury in case of inadequate qualification!**

Improper handling can lead to considerable bodily injuries and property damage.

- Have any activities only carried out by the individuals designated for that purpose.

The operating instructions specify the following qualification requirements for the different fields of activity:

#### **Operating personnel**

Operating personnel have been trained and authorized by Designa to carry out certain cleaning and fitting tasks at the device DIB 600 PREMIUM. It is essential that operating personnel are also completely familiar with the operating manual and relevant safety instructions.

#### **Specialized staff**

Specialized staff is due to its technical training, knowledge and experience as well as due to its knowledge of the pertinent regulations able to carry out the work assigned to it and to independently recognize potential hazards.

#### **Electrical technicians according to DIN VDE 1000-10**

Electrical technicians are able, due to their technical training, knowledge and experiences as well as knowledge of the relevant standards and regulations, to execute tasks on electrical systems and to independently recognize possible hazards.

In Germany, the electrical technicians must fulfil the provisions of the accident prevention regulation DGUV-V3 (e.g. master electrician). Appropriate regulations apply in other countries. The regulations valid there must be observed.

#### **Designa electrical technicians or electrical technicians of Designa trained and authorized dealers and partners**

Designa electrical technicians or electrical technicians of Designa trained and authorized dealers and partners comply with the requirements of the electrical technicians named here. Additionally, these electrical technicians are trained and authorized by Designa to perform installation, connection and servicing at the device DIB 600 PREMIUM.

## 2.5 Personal protective equipment

It is necessary to wear personal protective equipment when dealing with the device so as to minimize health hazards.

Before carrying out any work, properly dress in the necessary protective equipment such as work clothes, protective gloves, safety shoes, helmet, etc. and wear them during work.

## 2.6 Occupational safety and special dangers

The remaining risks resulting from the risk analysis are specified in the following section.

Observe the safety notes listed here and the warning notes mentioned in the other chapters of these instructions to reduce health hazards and to avoid dangerous situations.

### 2.6.1 Product safety labels on the device

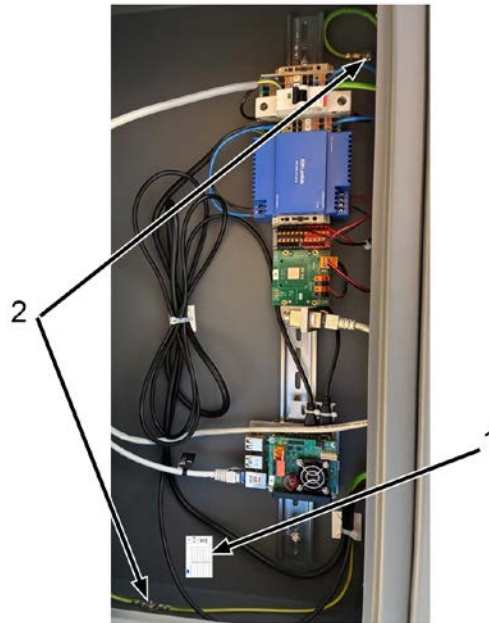


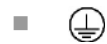
Fig. 2: Product safety labels

- 1 Type plate
- 2 Ground wire, internal

- ⇒ Check that all product safety labels are in place and display the information specified below.
- ⇒ Contact your Designa Service if any labels are missing or damaged.

#### Ground wire, internal

Ground wire, internal (see *chapter 8.3 Connection power supply (terminal block -X0)* on page 35).



#### Type plate

See *chapter 3 Identification* on page 17.

## 2.6.2 Safety messages and operation safety

Observe the safety messages listed here to reduce health hazards and to avoid dangerous situations.

### Electric voltage

#### DANGER

##### **Danger of death due to electric shock!**

Contact with live components may result in death.

- Installation has to be carried out by electrical technicians or Designa electrical technicians or electrical technicians of Designa trained and authorized dealers and partners.
- Connection and commissioning have to be carried out by Designa electrical technicians or electrical technicians of Designa trained and authorized dealers and partners.
- Check that the power supply line and electrical safety measures are in accordance with valid national and local regulations and standards and make sure they correspond with the specifications in the chapter 4 *Technical Data on page 18*.
- National regulations for accident prevention at electrical installations and equipment must always be followed.<sup>1</sup>  
Recommended: Locally provide - e.g. at the fuse box - an all-pole disconnection main switch for the device which can be locked in the OFF position (prevents accidental reconnection, e.g. when carrying out installation work).
- Switch off power supply and secure against re-activation before performing any work. Test for absence of voltage.
- Switch off the power supply immediately in case of damage to the insulation and arrange repair.
- Never bypass or deactivate overcurrent protection devices.
- When replacing overcurrent protection devices observe the correct amperage specification.
- Keep moisture and dust away from live parts. Moisture or dust may cause a short circuit. If the electrical connection is established at precipitation, e.g. rain or snow, penetration of moisture must be prevented by suitable measures, such as a protective cover.
- Ensure that the device is always locked correctly in order to avoid endangering third parties.

<sup>1</sup> e.g. in Germany: BGFE accident prevention regulation for electrical installations and equipment DGUV-V3

**Electric voltage:  
Missing protective facilities** **DANGER****Danger of death due to electric shock!**

The safety installations that are required according to regional and local regulations must be provided by the customer. Usually these are:

- Overcurrent protection devices
- Lockable 2-pole main switch acc. to EN 60947-3
- Residual current device (RCD)

**Thunderstorm, lightning,  
electric voltage** **DANGER****Danger of death from lightning and electrical voltage!**

If lightning strikes the device, contact to the device components and direct proximity to the device includes mortal danger.

- Never install the device during thunderstorms.
- Protect yourself in buildings or vehicles.

**Improper operation** **WARNING****Danger from improper operation of the device!**

Improper operation of the device can cause severe or lethal injuries

- Only additions to the device that are permitted by the manufacturer may be installed.

**Improper transport** **WARNING****Danger from improper transport of the device!**

The weight of the device can severely injure a person.

- Have them transported by specialized staff only.
- Check fasteners (packaging straps) for damage or tears.
- Use suitable lifting gear (loops, etc.) for lifting the device. The lifting gear must be designed for the respective weights.
- Never attempt to lift the device on your own.
- Always wear safety shoes.

**Falling device** **WARNING****Risk of injury from falling device!**

Falling device can cause severe injury.

- Secure the device DIB 600 PREMIUM against tilting before assembly.
- Install the device correctly.

### Insufficient fixing

#### **WARNING**

##### **Risk of injury at insufficient fixing!**

Insufficient fixing of individual components such and additions permitted by the manufacturer can cause severe injury.

- Only Designa electrical technicians or electrical technicians of Designa trained and authorized dealers and partners are allowed to assemble the device and the appropriate components.
- Check the foundation anchors fit tightly before starting the commissioning.
- Check the firm fixing of all screws according to maintenance schedule.

### Illegible signage

#### **WARNING**

##### **Risk of injury by illegible symbols!**

Labels and signs can become dirty or unrecognizable in the course of time.

- Always keep safety, warning and operating notes in a well readable condition.
- Immediately renew damaged or unrecognizable signs or labels.

## 2.7 Declaration of Conformity



### EU DECLARATION OF CONFORMITY EU-KONFORMITÄTSERKLÄRUNG

Product/ Produkt

Designation/ Bezeichnung: **DIB 600 PREMIUM**  
 Type/ Typ  
 From serial no./ ab Seriennummer: DIB170000

Manufacturer/ Hersteller

**Designa Verkehrsleittechnik GmbH**  
 Faluner Weg 3  
 24109 Kiel  
 Germany  
 Tel. +49 (0) 431 5336 0  
 Fax +49 (0) 431 5336 260  
 www.designa.com

This declaration of conformity is issued under the sole responsibility of the manufacturer.  
*Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller.*

Object of the declaration/ Gegenstand der Erklärung

**Supply device/ Versorgungsgerät**

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

*Der oben beschriebene Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union:*

**Directive 2014/35/EU** (Low Voltage Directive)  
*Richtlinie 2014/35/EU (Niederspannungsrichtlinie)*

**Directive 2014/30/EU** (EMC Directive)  
*Richtlinie 2014/30/EU (EMV-Richtlinie)*

**Directive 2011/65/EU (RoHS), Delegated directive (EU) 2015/863 (RoHS)**  
*Richtlinie 2011/65/EU (RoHS), Delegierte Richtlinie (EU) 2015/863 (RoHS)*

The following harmonised standards have been applied:

*Folgende harmonisierte Normen wurden angewendet:*

*EN IEC 62368-1:2020+A11:2020, EN IEC 62368-3:2020, EN 62311:2008, EN 55032:2015+A11:2020+A1:2020, EN 55035:2017+A11:2020, EN IEC 61000-3-2:2019+A1:2021, EN 61000-3-3:2013+A1:2019+A2:2021*

Signed for and on behalf of/ Unterzeichnet für und im Namen von

Designa Verkehrsleittechnik GmbH

Place and date of issue/ Ort und Datum der Ausstellung

Name, function, signature/ Name, Funktion, Unterschrift

Kiel, 30.03.2026

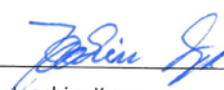
  
 Dr. Joachim Kopp  
 Director R&D/ Director R&D

Fig. 3: Declaration of conformity



## UKCA DECLARATION OF CONFORMITY

### Product

Designation: **DIB 600 PREMIUM**  
 Type:  
 From serial no.: DIB170000

### Manufacturer

**Designa Verkehrsleittechnik GmbH**  
 Faluner Weg 3  
 24109 Kiel  
 Germany  
 Tel. +49 (0) 431 5336 0  
 Fax +49 (0) 431 5336 260  
 www.designa.com

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Object of the declaration  
**Supply device**

The product described above meets the following applicable directives:

**Electromagnetic Compatibility Regulations 2016 (S.I. 2016/1091)**

**Electrical Equipment (Safty) Regulations 2016 (S.I.2016/1101)**

**The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (S.I .2012 No. 3032, as amended)**

The following harmonised standards have been applied:

*BS EN IEC 62368-1:2020+A11:2020, BS EN IEC 62368-3:2020, BS EN 62311:2008, BS EN 55032:2015+A11:2020+A1:2020, BS EN 55035:2017+A11:2020, BS EN IEC 61000-3-2:2019+A1:2021, BS EN 61000-3-3:2013+A1:2019+A2:2021*

Signed for and on behalf of  
 Designa Verkehrsleittechnik GmbH

Place and date of issue

Name, function, signature

Kiel, 31/03/2025

  
 Dr. Joachim Kopp  
 Director R&D

Fig. 4: Declaration of conformity for UK

## 3 Identification

### 3.1 Type plate

The device type plate is located on the casing.

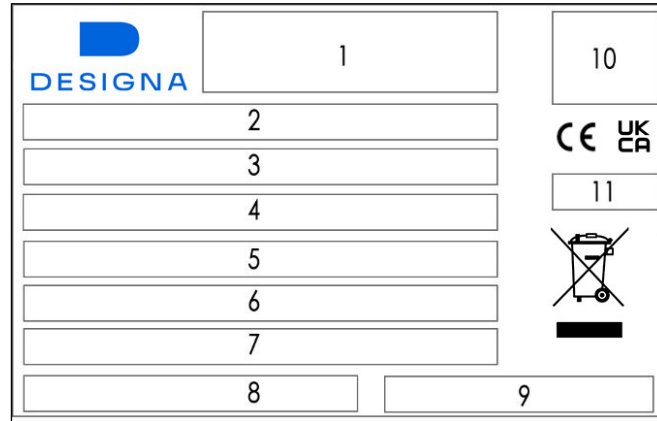


Fig. 5: Type plate

- 1 Manufacturer's name and address
- 2 Series (system)
- 3 Production code
- 4 Model
- 5 Article no.
- 6 Serial no.
- 7 Input: Power supply and current consumption
- 8 YOM: Year and month of manufacture
- 9 Manufacturing country
- 10 QR Code
- 11 Ingress protection rating

Some modules are also equipped with a type plate. The type plate is then located directly on the module.

## 4 Technical Data

### Dimensions and Weight

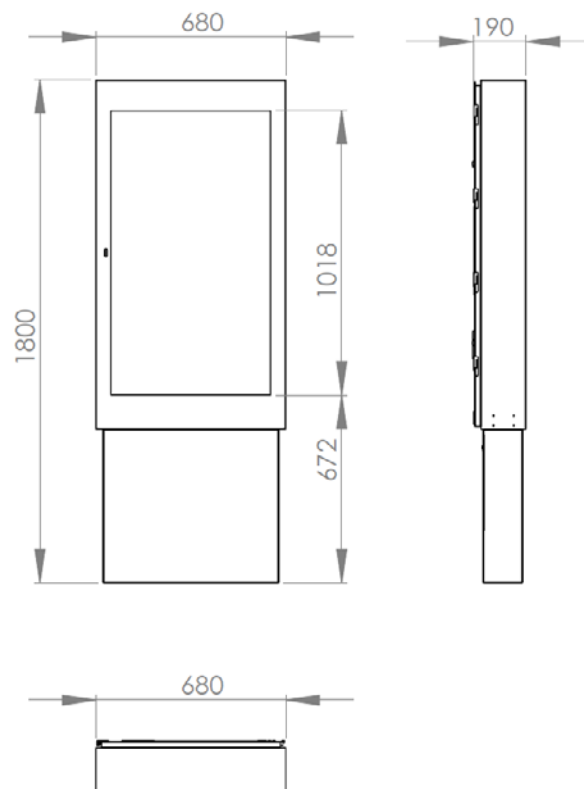


Fig. 6: DIB 600 PREMIUM, Dimensions in mm

Weight	
Stele	approx. 30 kg
Display	approx. 28 kg
Total	approx. 58 kg

### Electrical connection

Description	
Power supply	110-230 V AC, 50-60 Hz
Output voltage	110-230 V
Current consumption device	Operation 0.17 A
Power consumption device	max. 39 W
Network system	TN-S system
Pre-fuse	max. 16 A
Terminal cross-section:	max. 2.5 mm <sup>2</sup>
Connection type	Tension spring connection
Protection class	I
Control voltage	5 V DC

**Operating conditions**

Description	
Operating temperature	0 to +50 °C
Storage temperature	-25 to +70 °C
Relative humidity	max. 90 %, non-condensing
Noise development	< 35 dB(A)
Ingress protection rating:	IP 54

## 4.1 Display

**Display specifications**

Description	
Dimensions	1069.0 x 623.6 x 69.0 mm
Screen size	45.9 inch
Screen resolution	1920x1080 Pixel, 120 Hz
Screen format	16:9
Display brightness	3500 cd/m <sup>2</sup> (peak 4000 cd/m <sup>2</sup> )

**Electrical connection (Display)**

Description	
Input voltage	110-230 V AC, 50-60 Hz
Input current	Standby 0.03-0.06 A Operation 0.7-1.5 A Max. 1-2 A
Power consumption	Standby 6-6.6 W Operation 160-165 W Max. 215-220 W

**Operating conditions (Display)**

Description	
Operation temperature	-30 to +50 °C
Storage temperature	-30 to +50 °C
Relative humidity	max. 80 %, non-condensing
Noise development	< 35 dB(A)
Ingress protection rating:	IP 56

## 5 Device Description

Firstly, there is an overview of the design and functions of a standard device. Some components which can be perceived as units are described as independent Modules at the end of these instructions.

### 5.1 General design

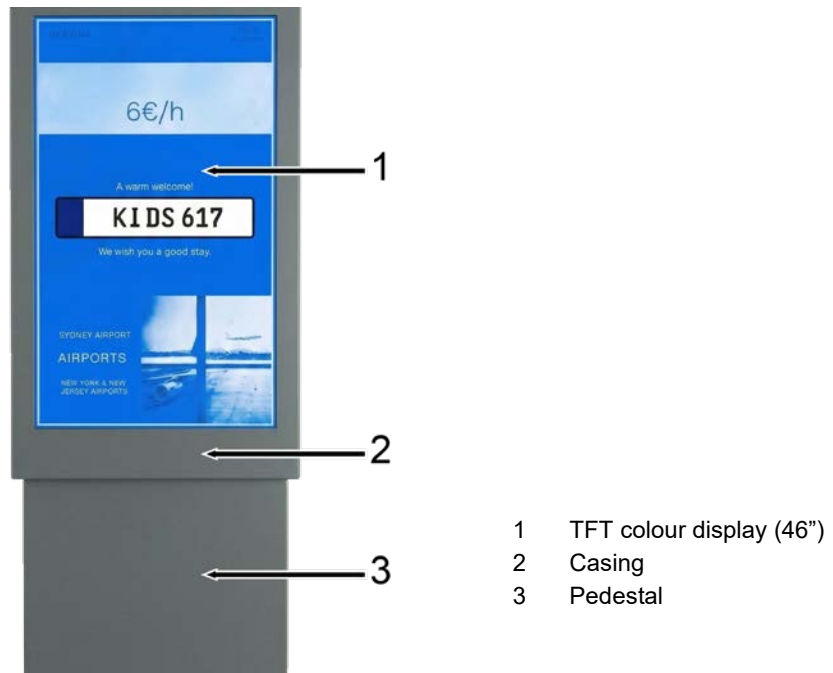


Fig. 7: General design

#### Design

- Casing and pedestal made of stainless steel 1.4301 (V2A), environmentally resistant powder-coated

#### Colour

- Casing and pedestal: RAL 7012 (basalt grey)

## 5.2 Components inside the device and their functions

### Electric voltage

#### **⚠ DANGER**

##### **Danger of death due to electric shock!**

Contact with live components may result in death.

- Before working on the device, switch off the power supply and secure it against being switched back on.
- Test for absence of voltage.

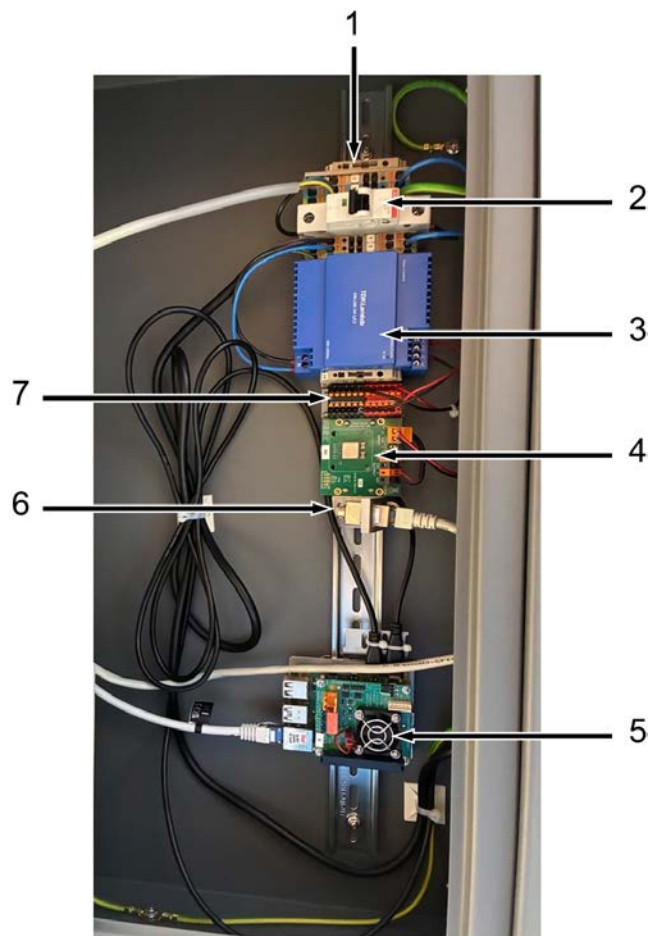


Fig. 8: Components inside the device (similar to figure)

- 1 Terminal block -X0
- 2 ON/OFF switch, all pole
- 3 Power supply unit
- 4 Step-down converter -T10
- 5 SBC (Single Board Computer)
- 6 Terminal block -X35
- 7 Potential distributor -X10

## 5.2.1 Power supply unit

### Electric voltage

#### DANGER

##### **Danger of death due to electric shock!**

The power supply unit is supplied with mains voltage (230 V).

Contact with live components may result in death.

- All works on the power supply unit has to be carried out by Designa electrical technicians or electrical technicians of Designa trained and authorized dealers and partners.
- Before carrying out work on the power supply unit make sure it is switched off (*see chapter 5.2.2 Terminal block -X0: Voltage connection on page 23*).
- Test for absence of voltage.



Fig. 9: Power supply unit (similar to figure)

The power supply unit supplies electric power to the device components. The alternating input voltage is converted to 5 V direct voltage.

Correct operation of the power supply unit is displayed via a LED, which emits a green light during normal operation.

For some options different power supplies can be used.

## 5.2.2 Terminal block -X0: Voltage connection

### Electric voltage

#### DANGER

##### **Danger of death due to electric shock!**

The terminal block -X0 is supplied with mains voltage (230 V).

Contact with live components may result in death.

- Electrical connection has to be made by Designa electrical technicians or electrical technicians of Designa trained and authorized dealers and partners.
- Switch off the device **externally** and make sure that it cannot be switched on again before carrying out work on the terminal block -X0.
- Please refer to the chapter 8.3 Connection power supply (terminal block -X0) on page 35.

### Terminal block -X0



- 1 ON/OFF switch, all pole
- 2 Power supply terminal display
- 3 Power supply terminal

Fig. 10: Terminal block -X0

The power supply cable available at the installation site is connected to the *power supply terminal*.

## 5.2.3 Terminal block -X35: Ethernet connection

The **Ethernet (LAN)** cable is connected to the *Ethernet port*.

The *Ethernet port* is included as a component with the DIB 600 PREMIUM device and is wired on site and mounted in a free space on the mounting rail

### 5.2.4 SBC (Single Board Computer)

The **SBC** (single board computer) controls the operation and functions of the individual device components with the respective required programme.

The SBC is centrally controlled by the **Systemserver** and identified and addressed via IP addresses.<sup>2</sup>

Various components of the device are connected to the SBC and are controlled completely or partially from here.

*For further details see chapter 13 SBC (Single Board Computer) module on page 49.*

### 5.2.5 Step-down converter

The **step-down converter** converts a higher input voltage into a lower output voltage.

### 5.2.6 Locking system

#### Risk of crushing fingers

#### CAUTION

#### **Risk of crushing fingers when closing the casing door and the base door!**

Fingers may be crushed when closing the casing door and the base door.

- Keep your fingers out of the danger zone.

#### Unlocking the casing door

The casing door is secured by two locks, and the pedestal door by one lock. All three locks are opened with the same key.

1. Insert the key into the first lock on the casing door. The order does not matter.
2. Unlock the first lock on the casing door by turning the key clockwise.
3. Insert the key into the second lock on the casing door.
4. Unlock the second lock on the casing door by turning the key clockwise
5. Open the casing door.

#### Lock the casing door

1. Close the casing door.
2. Insert the key into the first lock on the casing door. The order does not matter.
3. Lock the first lock on the casing door by turning the key anticlockwise.
4. Insert the key into the second lock on the casing door.
5. Lock the second lock on the casing door by turning the key anticlockwise.

<sup>2</sup> The IP addresses and associated SBC addresses are set up in the *system configuration* for your system prior to delivery or by your Designa service team.

**Unlocking the pedestal door**

1. Insert the key into the lock on the pedestal door.
2. Unlock the pedestal door by turning the key clockwise.
3. Open the pedestal door.

**Lock the pedestal door**

1. Close the pedestal door.
2. Insert the key into the lock on the pedestal door.
3. Lock the pedestal door by turning the key anticlockwise.

# 6 Transport and Storage

## 6.1 Safety

### Improper transport

### NOTICE

**The device can be damaged by improper transport.**

Substantial material damages can result from improper transport.

- Have them transported by specialists only.
- When unloading the packages and during in-plant transportation always proceed with greatest care and caution.
- Observe the symbols on the packaging.
- Observe the dimensions of the device.
- Loading, unloading as well as moving the device must take place with greatest care.
- Only remove packaging directly before assembly.

### Personal protective equipment

The following must be worn during all work:

- Work clothes
- Protective gloves
- Safety shoes

## 6.2 Transport inspection

1. Immediately check the delivery after receipt for completeness and transport damages.
2. Proceed as follows in the case of outwardly recognizable transport damage:
  - ⇒ Do not accept the delivery or only under reserve.
  - ⇒ Note the extent of damage on the transport documents or on the delivery note of the forwarder.
  - ⇒ Lodge complaint.

---

**i** Lodge a complaint for each defect, as soon as it is recognized. Compensation claims can only be submitted within the valid complaint periods.

---

## 6.3 Storage

Store the device or packages under the following conditions:

- Do not store outdoors.
- Store dry and dust free.
- Do not expose to aggressive media.
- Protect against solar irradiation.
- Avoid mechanical vibrations.
- Storage temperature: -25 to +70 °C
- Relative humidity: max. 90 %, non-condensing
- Check the general condition of all components and packaging regularly, if they are stored for longer periods than 3 months.

## 7 Installation

### 7.1 Safety

#### Electric voltage

#### DANGER

##### **Danger of death due to electric shock!**

Contact with live components may result in death.

- Installation has to be carried out by electrical technicians or Designa electrical technicians or electrical technicians of Designa trained and authorized dealers and partners.
- Make sure that the power supply is **externally** disconnected and that it cannot be switched on.
- Test for absence of voltage.

#### Inappropriate installation

#### WARNING

##### **Danger by inappropriate installation!**

Inappropriate installation can cause severe injuries.

- Installation has to be carried out by electrical technicians or Designa electrical technicians or electrical technicians of Designa trained and authorized dealers and partners.
- Prior to work, ensure that there is sufficient assembly space.
- Pay attention to tidiness and cleanness at the assembly site! Loosely stacked or lying around components and tools are accident sources.
- Comply with specifications for foundations and reinforcement.
- Ensure correct arrangement and fit on all assemblies and components.
- Install the indicated fastening elements correctly.

#### Heavy weight

#### WARNING

##### **Risk of injury when lifting heavy objects alone!**

The weight of heavy objects can severely injure a person.

- Never attempt to lift the device on your own.
- Always wear safety shoes.

#### Risk of crushing fingers

#### CAUTION

##### **Risk of crushing fingers when closing the casing door and the base door!**

Fingers may be crushed when closing the casing door and the base door.

- Keep your fingers out of the danger zone.

**Inappropriate cleaning with air pistols** **CAUTION****Risk of injury due to inappropriate cleaning with air pistols!**

Inappropriate cleaning with air pistols may result in minor injuries or damage to eyes due to flying particles.

- Always wear safety goggles.
- Prevent air penetrating the body through skin injuries.
- Do not aim air pistols at people.
- Only use air pistols with a maximum pressure of 3.5 bar.
- Only use air pistols with a reduced noise level (multi-hole nozzles).

**NOTICE****Dirt, dust and humidity can damage sensitive electronics and mechanics and impair safe operation.**

- Avoid leaving the device open longer than necessary..
- After working on the device, check that it is properly closed..

**Personal protective equipment**

The following must be worn during all work:

- Work clothes
- Protective gloves
- Safety shoes

## 7.2 Location

### Location requirements

The device is qualified for either indoor, protected or outdoor locations.

- ⇒ Choose a location which offers enough additional operating space (for opening the device etc.).
- ⇒ Make sure that there are sufficient, fully visible signs around the car park site. Keep signs clean and position them so that they can be read easily.
- ⇒ Use signs to clearly display areas (e.g. entrance and exit).
- ⇒ Provide separate footpaths next to entrances and exits and mark pedestrian areas, to ensure that pedestrians do not have to walk near entrances and exits or on the roads.
- ⇒ It is essential to observe the safety information in the barrier operating instructions and the following notes if barriers are installed in your system.

### Foundation requirements

The device has to be installed on a concrete foundation.



The concrete foundation must be sufficiently rigid as to withstand the weight of the unit fully loaded: it needs to have a strength of 25 N/mm<sup>2</sup>.

The foundation needs to have a frost-depth of approx. 800 mm and must be non-flammable!

The foundation has to have a smooth concrete finish.

---

1. Pour the foundation according to manufacturer specifications.
2. Lead the ductworks into the middle of the foundation from the foundation cast. Ensure that the cables are led through the middle of the pedestal opening.
3. Leave at least approx. 2.50 m of the supply cables for a simple connection.
4. Embed (if available) the Designa foundation frame into the concrete during the building stage and level the foundation frame with a spirit level.
5. Provide the foundation with a smooth concrete finishing.  
If a foundation frame is embedded, make sure its surface is flush with the smooth concrete finishing after embedding.
6. Ensure that the surface is a non-flammable surface and sufficiently rigid as to withstand the weight of the unit fully loaded (25 N/mm<sup>2</sup>) and that in outdoor locations a frost-depth of approx. 800 mm is ensured.
7. Ensure that the poured foundation material has completely hardened before installing the device onto the *foundation frame* or before preparing the mounting with the *Designa mounting kit*.

## 7.3 Different mounting possibilities

### Mounting possibilities

The following device mounting possibilities are available:

- with the Designa mounting kit

### 7.3.1 Preparation with Designa mounting kit

The devices are fastened with the Designa mounting kit, if no Designa foundation frame is provided (e.g. not embedded into the concrete during construction or not available for the device).

The following is required for mounting:

#### Designa mounting kit

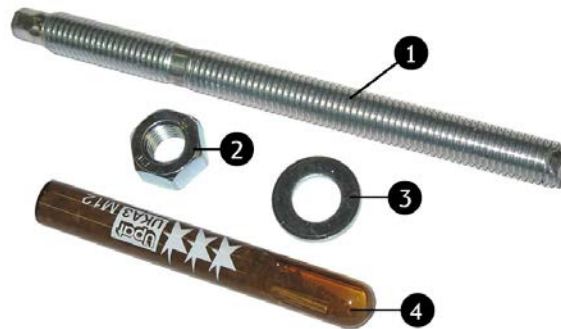


Fig. 11: Designa mounting kit

- 1 Galvanized threaded rod (M12x160) (4x)
- 2 Stainless steel hexagon nuts (M12; ISO 4032, DIN 934) (4x)
- 3 Stainless steel washers (A13; DIN 125) (4x)
- 4 Mortar cartridge (M12) (4x)

Not shown:

- 5 If included in the scope of delivery: 2x mounting bars)

#### Skin and eye irritation

### ⚠ CAUTION

#### Skin and eye irritation from improper application of the mortar cartridges!

Improper application of the mortar cartridges may cause skin and eye irritations.

- Use the mortar cartridges only if undamaged.
- Avoid eye and skin contact.
- See also the instructions for the mortar cartridges.

#### Setting the anchor bolts

Prerequisite: The concrete foundation must be fully cured.

1. Check completeness and quality of the fastenings.
2. Use the drilling pattern of the foundation frame to mark the bore holes or position the device and mark the holes using the bore holes in the casing base.
3. Drill holes in the concrete foundation with a diameter of 14 mm and a depth of 110 mm.
4. Clean the holes with compressed air.
5. Fully insert the mortar cartridges into the clean holes.
6. Use a hammer drill or percussion drill to insert the threaded rods into the bore hole and mortar cartridges. Please pay careful attention to the mortar cartridges instructions.
7. Observe the hardening times mentioned below:

## Typical hardening times

Hole temperature	Waiting time valid for dry material	Waiting time valid for wet material
> 20 °C	20 min	40 min
10 - 20 °C	30 min	1 h
0 - 10 °C	1 h	2 h
-5 - 0 °C	5 h	10 h

8. Have the mounting accessories ready for final mounting.

## 7.4 Unpacking the device

The individual packages have been packed according to the expected transport conditions.

The packaging must protect the individual components against transport damage, corrosion, etc. prior to assembly. Therefore, do not damage the packaging and only remove it immediately before assembly work.

1. Transport the device to its place of installation and then unpack it.
2. Loosen the screwed connections with which the device is mounted to its transport aid (e.g. wooden pallet).
3. Have the mounting profiles ready for final mounting.
4. Separate the packaging according to type and size, and either reuse it or recycle it.

## 7.5 Installation of the device

### Electric voltage

#### DANGER

##### **Danger of death due to electric shock!**

Contact with live components may result in death.

- Installation has to be carried out by electrical technicians or Designa electrical technicians or electrical technicians of Designa trained and authorized dealers and partners.
- Make sure that the power supply is **externally** disconnected and that it cannot be switched on.
- Test for absence of voltage.

### Designa mounting kit

1. Lift the device with the bore holes in the casing base onto the anchor bolts.
2. Hold the device in a position that the cable can be fed through the opening in the base and into the casing.
3. Use mounting profiles, hexagon screws/ nuts and washers to attach the device to the anchor bolts. At first, only hand-tighten the hexagon nuts/ screws.
4. Align the device with a spirit level (clearance is guaranteed due to the clamp fixture). Ensure that the casing is not buckled due to unevenness of the floor.
5. Now tighten the hexagon nuts (45 N m).
6. Check that the device is fixed and standing securely.
7. Remove the transport safety devices of the device components, if available.
8. Seal the gap between the device and foundation with silicone.

## 8 Connection

### 8.1 Safety

#### Electric voltage

#### DANGER

##### **Danger of death due to electric shock!**

Contact with live components may result in death.

Damage to the insulation or to individual components may result in death.

- Connection has to be carried out by Designa electrical technicians or electrical technicians of Designa trained and authorized dealers and partners.
- Make sure that the power supply is **externally** disconnected and that it cannot be switched on. Test for absence of voltage.
- Switch off the power supply immediately in case of damage to the insulation and arrange repair.
- Never bypass or deactivate overcurrent protection devices.
- When replacing overcurrent protection devices observe the correct amperage specification.
- Keep moisture and dust away from live parts. Moisture or dust may cause a short circuit. If the electrical connection is established at precipitation, e.g. rain or snow, penetration of moisture must be prevented by suitable measures, such as a protective cover.
- Ensure that the device is always locked correctly in order to avoid endangering third parties.

#### Inappropriate connection

#### WARNING

##### **Danger by inappropriate connection!**

Inappropriate connection can cause severe or lethal injuries.

- Connection has to be carried out by Designa electrical technicians or electrical technicians of Designa trained and authorized dealers and partners.
- Pay attention to tidiness and cleanness at the assembly site. Loosely stacked or lying around components and tools are accident sources.
- Tighten all screws correctly.

#### Personal protective equipment

The following must be worn during all work:

- Work clothes
- Protective gloves
- Safety shoes

### 8.2 Installing electrical protective devices

The safety installations that are required according to regional and local regulations must be provided by the customer. Usually these are:

- Overcurrent protection devices
- Lockable 2-pole main switch acc. to EN 60947-3
- Residual current device (RCD)

### 8.3 Connection power supply (terminal block -X0)

#### Electric voltage

#### ⚠ DANGER

##### Danger of death due to electric shock!

If the power cable is not connected to the terminal clamps correctly, loosens from the connection clamps and touches the casing or door, there is a direct danger to life from electric shock.

- Connection has to be carried out by Designa electrical technicians or electrical technicians of Designa trained and authorized dealers and partners.
- Check that the power supply line and electrical safety measures are in accordance with valid national and local regulations and standards and make sure they correspond with the specifications in chapter 4 *Technical Data on page 18*.
- Make sure that the power supply is **externally** disconnected and that it cannot be switched on. Test for absence of voltage.
- Connect power supply according to the following description.
- Please observe the connection diagrams supplied with the device for options and special versions.

#### Terminal block -X0

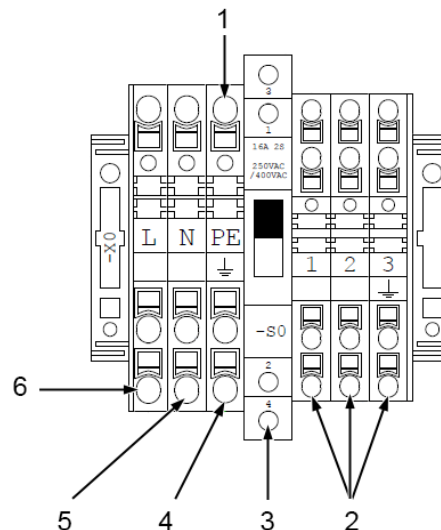


Fig. 12: Terminal block -X0

- 1 Ground wire, internal / factory wired
- 2 230 V supply for display
- 3 ON/OFF switch
- 4 Ground lead, external (green/yellow)
- 5 Neutral lead (blue)
- 6 Conducting lead (brown or black)

#### Power supply cable

The power supply cable at the place of installation has to be laid separately from the sub-distribution to the terminal block -X0.

**Removing the insulation**

1. Make sure that the power supply is externally disconnected and that it cannot be reconnected. Ensure no voltage is applied.
2. If necessary, shorten the supply cable to the required connection length.
3. Insulate the feeder and the individual wires according to the following illustration. Do not damage the insulation of the individual wires when stripping the cable.

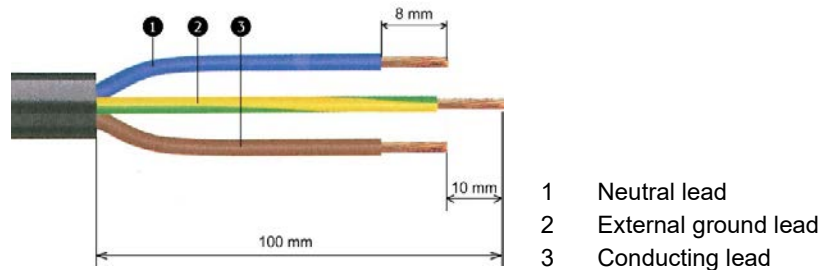


Fig. 13: Removing the insulation

**Connecting the supply cable**

4. Connect the *external ground lead* (green/yellow) to position *PE* of the terminal block.
5. Connect the *neutral lead* (blue) to position *N* of the terminal block.
6. Connect the *conducting lead* (brown or black) to position *L1* of the terminal block.
7. Check whether all connections are fitted correctly and securely.
8. Check whether the factory-wired *internal ground wire* is correctly connected to the device casing.

**Checking the internal ground wire****ON/OFF switch**

The applied device voltage is switched on and off via the ON/OFF switch. (see chapter 5.2.2 Terminal block -X0: Voltage connection on page 23).

The ON/OFF switch can, after switching on the power supply at the place of installation, be switched on for testing purposes (position ON, upwards), but they should stay switched off (position OFF, downwards) until final connection.

## 8.4 Ethernet Connection (terminal block -X35)

### Defective data transmission

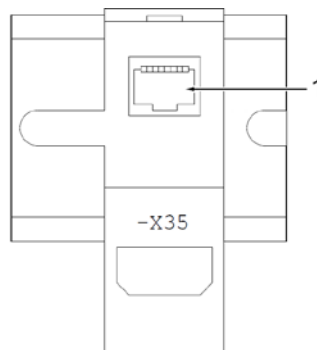
#### NOTICE

##### Inappropriate connection can cause defective data transmission.

- Connection has to be carried out by Designa electrical technicians or electrical technicians of Designa trained and authorized partners.
- Check the already used assignments of the **Ethernet** connections in your system. These can be conducted according to the standards *EIA/TIA-T568A* or *EIA/TIA-T568B*.
- Observe the chosen assignment for all Ethernet connections in your system.
- Clamp the Ethernet connection **tightly** (top and bottom) onto the mounting rail. This creates the required earthing and ensures trouble-free operation of the data line.
- Please pay attention to the enclosed instructions for preparation, wiring and mounting of the *Ethernet connection* as well as to the following description.
- Do not damage the insulation of the individual wires when stripping off the sheath.

The **Ethernet (LAN)** line is connected to the *Ethernet connection*.

The component *Ethernet connection* is part of the scope of delivery and is wired and mounted on site to a free location of the mounting rail



1 Ethernet connection -> SBC

Fig. 14: Terminal block -X35; Ethernet connection

### Connecting Ethernet

1. If necessary, shorten the wires of the Ethernet data line to the required length.
2. Strip off the sheath of the Ethernet data line in order to wire up the wires individually.
3. Carry out wiring and installation as described in the instructions supplied with the *Ethernet connection*.
4. Attach tightly the present connection cable of *terminal block -X35* to the *Ethernet connection-> SBC* ①.

**Assignment according to EIA/TIA-T568A**

If **no** assignment has already been used or if the standard *EIA/TIA-T568A* is already assigned, conduct the wiring according to *EIA/TIA-T568A*:

**i** The wiring according to standard *EIA/TIA-T568A* is described in the instructions enclosed to the *Ethernet connection*.

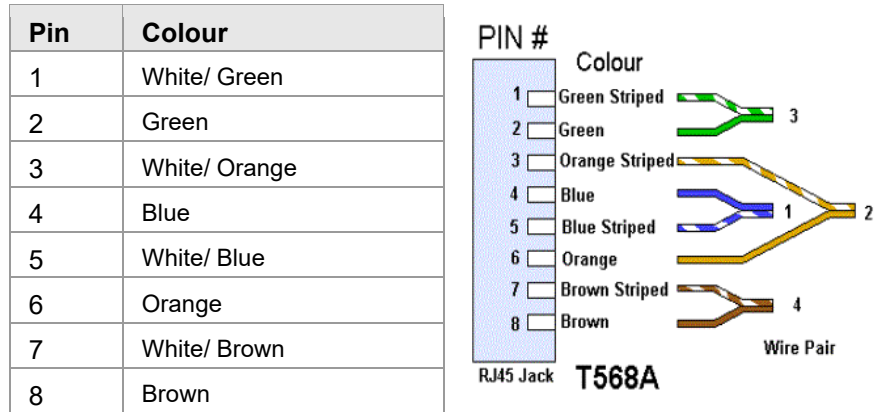


Fig. 15: Assignment of the Ethernet connection, EIA/TIA-T568A

**Assignment according to EIA/TIA-T568B**

Observe the assignment if it has already been used according the standard *EIA/TIA-T568B*.

**i** The wiring in this case is conducted **against** the instructions enclosed to the *Ethernet connection*.

⇒ Connect the conductors *green* and *white/green* to the positions 3 and 6 of the conductors *orange* and *white/orange* of the instructions and vice versa:

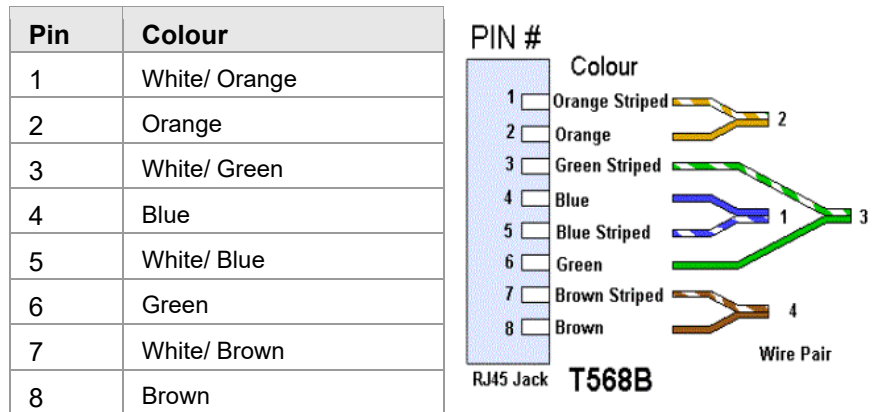


Fig. 16: Assignment of the Ethernet connection, EIA/TIA-T568B

## 8.5 Connection display

### Electric voltage

**⚠ DANGER**

**Danger of death due to electric shock!**

Contact with live components may result in death.

- Connection has to be carried out by Designa electrical technicians or electrical technicians of Designa trained and authorized dealers and partners.
- Before carrying out any work, disconnect the power supply and secure it against being reconnected. Check the absence of voltage.

### Terminal block -X0

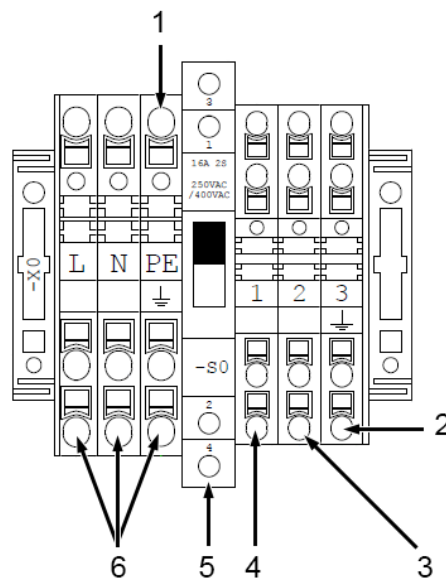


Fig. 17: Terminal block -X0

- 1 Ground wire, internal / factory wired
- 2 Ground lead, external (green/yellow)
- 3 Neutral lead, external (blue)
- 4 Conducting lead, external (brown or black)
- 5 ON/OFF switch
- 6 Connection power supply DIB 600 PREMIUM

### Removing the insulation

1. Make sure that the power supply is externally disconnected and that it cannot be reconnected. Ensure no voltage is applied.
2. If necessary, shorten the display cable to the required connection length.
3. Insulate the feeder and the individual wires according to the following illustration. Do not damage the insulation of the individual wires when stripping the cable.

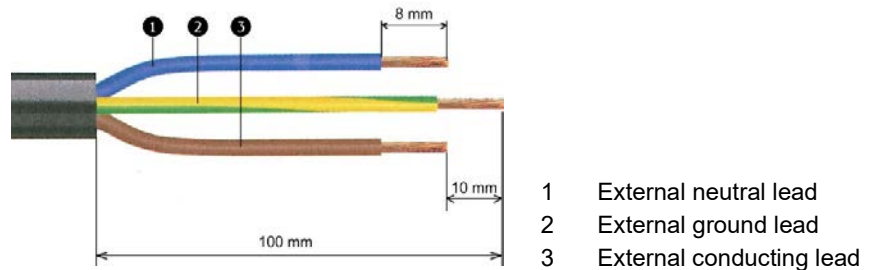


Fig. 18: Removing the insulation

### Connecting the display

4. Connect the *external ground lead* (green/yellow) of the display to position 3 of the terminal block.
5. Connect the external *neutral lead* (blue) of the display to position 2 of the terminal block.
6. Connect the external *conducting lead* (brown or black) of the display to position 1 of the terminal block.
7. Check whether all connections are fitted correctly and securely.

## 9 Testing in accordance with accident prevention regulations

### Electric voltage

#### DANGER

##### **Danger of death due to electric shock!**

Direct contact with live electrical equipment is potentially lethal.

- According to the accident prevention regulations testing should only be carried out by fully trained and qualified electricians.

The efficient working order of electrical systems and equipment must always be checked prior to initial start-up, after any changes or repairs and at regular intervals.

In Germany, testing must satisfy the requirements specified by the accident prevention regulations (DGUV-V3). Appropriate regulations apply in other countries. Always comply with the relevant regulations.

### 9.1 Initial device testing

The device DIB 600 PREMIUM has been tested ex-works in accordance with the accident prevention regulations (DGUV-V3). Testing was carried out in line with recognized standards of good engineering practice<sup>3</sup>.

The following tests were executed.

#### Visual inspection

A visual inspection of the insulation, earthing, strain relief, etc.

#### Protective earth conductor test: Measuring the continuity of the protective earth conductor

This test involved measuring the continuity of the protective earth conductor. Relevant measurements are carried out between the protective earth conductor/main device connection and specified measuring points (*see chapter 9.2 Measuring points for the protective earth conductor test on page 42*).

#### Measuring the fault loop impedance

This test involved measuring the resistances of the entire outward and return path of an electric circuit. The measurements were carried out between the line conductor and protective conductor and the line conductor and neutral conductor using an installation tester (*see chapter 9.3 Measuring points for the fault loop impedance measurement on page 42*).

#### Measuring the insulation resistance

The initial insulation resistance test was carried out with a leakage current probe using differential current or as a direct measurement (500 V test voltage).

#### Optional residual current device (RCD) or residual current operated circuit-breaker with overcurrent protection (RCBO)

With the optional residual current device (RCD) (type A) or the residual current operated circuit-breaker with overcurrent protection (RCBO), the switch-off time, switch-off current and touch voltage were measured and the function checked.

#### Documenting the tests

All the tests have been documented in a report on initial device testing.

<sup>3</sup> In Germany, e.g., DIN VDE 100 Part 600

## 9.2 Measuring points for the protective earth conductor test

The following measuring points have been specified for measuring the continuity of the protective earth conductor. The measuring points are indicated by yellow labels. If an earthing rod is specified as a measuring point, the measurement is carried out at the top of the earthing rod (not at the protective earth conductor cable).



Fig. 19: Measuring points

- 1 Measuring point TP1: Casing
- 2 Measuring point TP2: Pedestal

Not shown:

- 3 Measuring point TP3: Pedestal door
- 4 Measuring point TP4: Casing door

## 9.3 Measuring points for the fault loop impedance measurement

The following measuring points have been specified for measuring the fault loop impedance.

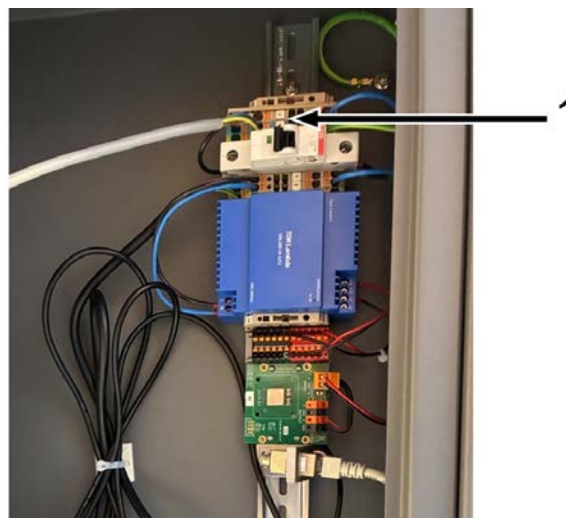


Fig. 20: Measuring point for measuring the fault loop impedance

- 1 Measuring point 1 - (Connection terminal for supply voltage)

## 10 Commissioning and Function check

### 10.1 Commissioning



The configuration of the device DIB 600 PREMIUM is carried out by your Designa Service.

### 10.2 Check condition of device

1. Check completeness of the safety labels (*see chapter 2.6.1 Product safety labels on the device on page 11*). Consult your Designa service if any are missing or the quality is below standard.
2. Check the quality of the device components. Consult your Designa service if any damages are visible.
3. Make sure the device components are fitted correctly. Tighten any loose screw connections.
4. Check that the plug and clamping connections are connected correctly.

### 10.3 Establish general function

#### Electrical voltage

**DANGER****Danger of death due to electric shock!**

Contact with live components may result in death.

- Commissioning has to be carried out by Designa electrical technicians or electrical technicians of Designa trained and authorized partners.

Commissioning is carried out on-site according to the respective requirements of your system and is therefore not described in these operating instructions.

# 11 Operation

## Use of a PIN is recommended



To minimise the risk of the displayed content being manipulated, we recommend setting a PIN. A PIN can be set directly on the relevant display. You will find all the relevant information in the display user manual.

The display of content is configured in the media player (MCC). The MCC can be accessed via the WinOperate software.

# 12 Maintenance

## 12.1 Safety

### Electric voltage

#### **DANGER**

##### **Danger of death due to electric shock!**

Contact with live components may result in death.

- Certain maintenance work may be carried out by Designa trained operating personnel familiar with the user manual and the safety instructions. All other maintenance work may only be carried out by Designa electrical technicians or electrical technicians of Designa trained and authorized dealers and partners and is marked accordingly.
- Switch off the device unless the work step requires a voltage supply.
- Keep moisture and dust away from live parts. Moisture or dust may cause a short circuit. If the maintenance work is established at precipitation, e.g. rain or snow, penetration of moisture must be prevented by suitable measures, such as a protective cover.

### Inappropriate cleaning and basic services

#### **WARNING**

##### **Risk of injury from inappropriate cleaning and basic services!**

Inappropriate cleaning and basic services can cause severe or lethal injuries.

- Work inside the device should only be carried out by Designa trained operating personnel who are familiar with the operating instructions and safety information.
- Make sure that cleaning fluids are neither swallowed nor come into contact with eyes.

### Risk of crushing fingers

#### **CAUTION**

##### **Risk of crushing fingers when closing the casing!**

Fingers may be crushed when closing the casing.

- Keep your fingers out of the danger zone.

### Inappropriate cleaning

#### **NOTICE**

**Inappropriate cleaning can result in damage to the device.**

There are sensitive electronic components inside the device. Dust and moisture can have a negative effect on the accuracy and the service life of the individual components.

Aggressive cleaning agents and auxiliary materials can damage or destroy the components or surface coating of the casing.

- Always keep the inside of the device clean and ensure that no moisture enters into it.
- If necessary, completely wipe off any water from the casing or door before opening the device.
- Do not use aggressive cleaning agents, such as thinners or cleaning solvents, to clean the device.
- Do not use any steam cleaners or high-pressure cleaners.

### Personal protective equipment

The following must be worn during all work:

- Work clothes
- Protective gloves
- Safety shoes

## 12.2 Cleaning items

The following cleaning items can be ordered from Designa:

Designa order no.	Description	Content
7232148915	Cleaning fluid	100 ml

## 12.3 Checking safety labels

### Check safety signs

1. Make sure that the safety signs near the device are visible and can always be easily read.

### Check safety labels

2. Make sure that the safety labels on the device are visible and can always be easily read.

### Check user prompting labels and diagrams

3. Pay attention to good perceptibility of the user prompting labels and diagrams.

## 12.4 Cleaning the casing

### 12.4.1 Cleaning casing outside

#### Clean the casing

1. Clean the casing regularly with a soft cloth and a mild cleanser. Clean the casing more often, if there is a high degree of soiling (e.g. dusty environment).

#### Clean the casing when using gritting salt in the winter

### NOTICE

Gritting salt can damage the paintwork of the casing and may result in corrosion.

Clean the outside of the casing monthly with a soft cloth and a mild cleaning agent if gritting occurs in the vicinity.

### 12.4.2 Cleaning inside the device

1. Switch off the device.
- 2.

### NOTICE

#### Device might become damaged.

- Pay attention to cleanliness inside the device and clean it more than once a month if there is a high degree of soiling (e.g. dusty environment).
- Do not use any aggressive agents like thinners or petroleum ether for cleaning the casing. Recommended cleanser: Washing-up liquid-water-solution.

Clean the inside of the device regularly with a soft cloth and a mild cleanser.

3. Carefully vacuum inside the device if it is very dirty beforehand
4. Carefully vacuum the mounting plates.
5. Switch on the device.

## 13 SBC (Single Board Computer) module

### NOTICE

**The SD card of the controller must not be removed.**

- The terminal DIB 600 PREMIUM without an SD card.
- The SD card is connected to the terminal DIB 600 PREMIUM during production and cannot be used in other terminals
- Inserting the SD card into an unconnected terminal modifies the data on the SD card. An SD card with modified data can no longer be used with the original terminal.

### 13.1 Function

In the system ABACUS, the **SBC** (Single Board Computer) controls the operation and functions of the individual device components with the required program.

The SBC is centrally controlled by the system server and identified and addressed via IP addresses.<sup>4</sup>

Various components are connected to the SBC and are fully or partially controlled from there.

### 13.2 Design and operation

### CAUTION

**Improper operation of the SBC may lead to the device malfunctioning.**

- If the SBC needs to be replaced, the entire module is replaced.
- Avoid unnecessary switching on and off at the device DIB 600 PREMIUM. An operating system is installed on the SBC, which needs some time to boot after switching on.



The device is delivered with user-specific default settings.

Adjustments to the setting values are made exclusively in WinOperate and are carried out by your Designa service.

The components are delivered with user-specific default settings.

The setting values for the TFT full touch display (46") are already stored in the system and are controlled via the SBC.

<sup>4</sup> The IP addresses and the associated SBC addresses are set up in the *system configuration* for your system before delivery or by your Designa service.

**SBC (Single Board Computer)**

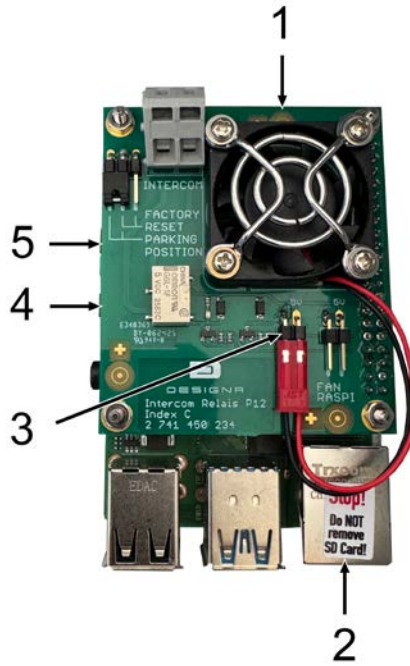


Fig. 21: SBC (Single Board Computer) with mainboard

- 1 .Slot for microSD
- 2 Ethernet interface, RJ45
- 3 5 V connection for SBC fan
- 4 HDMI port for display
- 5 5 V voltage supply

**Slot for microSD**

Slot for a microSD memory card containing the SBC's operating system.

**Ethernet interface, RJ45**

The **LAN** (Local Area Network) is connected to the SBC via the Ethernet interface.

**HDMI port for display**

The contrast for the TFT colour display (46") is set in the system by your Designa service.

**5 V voltage supply**

The SBC is supplied with 5 V DC via the power supply.

# 14 Decommissioning, Disassembly and Disposal

## 14.1 Safety

### Electric voltage

#### DANGER

##### **Danger of death due to electric shock!**

Contact with live components may result in death.

- Decommissioning and disassembly have to be carried out by electrical technicians or Designa electrical technicians or electrical technicians of Designa trained and authorized dealers and partners.
- Make sure that the power supply is **externally** disconnected and that it cannot be switched on.
- Test for absence of voltage.

### Occupational safety and environmental protection

#### WARNING

##### **Risk of harm to humans and the environment as a result of improper disposal of the device DIB 600 PREMIUM or components.**

Improper disposal of the device or components can be harmful to human health and the environment.

- Make sure disposal is always be carried out by fully qualified specialists.
- Pay attention to valid country-specific environmental regulations.

### Risk of crushing fingers

#### CAUTION

##### **Risk of crushing fingers when closing the casing!**

Fingers may be crushed when closing the casing.

- Keep your fingers out of the danger zone.

## 14.2 Decommissioning and disassembly

1. Disconnect the device from all sources of supply DIB 600 PREMIUM (see *chapter 8 Connection on page 34*).
2. Disassemble the device DIB 600 PREMIUM in reverse order to assembly (see *chapter 7 Installation on page 28*).
3. Disassemble the device into its individual parts.

## 14.3 Disposal

The device DIB 600 PREMIUM consists of recyclable materials.

- ⇒ After correct disassembly, sort the materials back into specific material types and recycle them.

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## 16 Version overview

Version 1.00, 06/2026 (GN)

Creation of the document

### **Subject to technical changes.**

The parking system ABACUS is continuously advanced and improved. Please contact your Designa Service about changes and additions to these operating instructions.