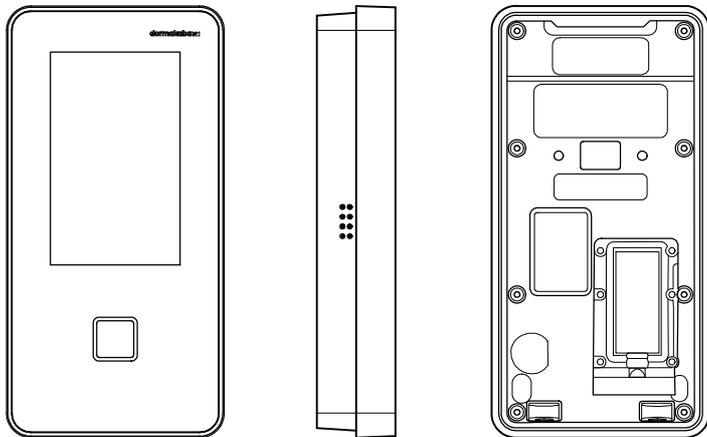


## About this quick guide

### Validity

This quick guide describes the product



Product designation	<b>Terminal 96 00</b>
Product ID	9600-K6
Item number	04079601
Date of manufacture:	From July 2017

### Target group

This quick guide should only be used by skilled persons trained by the manufacturer.

## Safety instructions

### Designated use

The product is only intended for use as described in chapter "Product description". Any use beyond that is considered contrary to its designated use. The manufacturer cannot be held liable for damage resulting from such use.

### Staff qualification

The actions described in this quick start guide must only be carried out by skilled persons in accordance with EN 62368-1.

Skilled person is the designation for people who have the appropriate technical training and experience in setting up the equipment. Skilled persons are expected to use their training and experience to identify any risks to themselves and others that may arise while carrying out these activities, and to minimise these risks as far as possible. It is the skilled person's responsibility to ensure that the conditions stated by the manufacturer and the applicable regulations and standards are complied with when carrying out these actions.

### Assembly and installation

The product should only be installed in locations which fulfil the environmental and technical conditions specified by the manufacturer.

The manufacturer is not liable for damage arising due to improper handling or incorrect installation.

### Environmental protection

It is prohibited to dispose of the device in your domestic waste.

Used devices contain valuable materials that should be recycled. Properly dispose of used devices.

## Product description

The terminal 96 00 can be used for time and attendance, access control of an individual door and as CardLink update terminal.

The B-Client terminal software makes the device compatible in terms of data records with its predecessor series B-web and B-net, allowing it to be connected to the host system via UDP using the communication software B-COMM. Connecting it to HTTP/HTTPS-based applications, such as b-comm ERP5, b+ or EACM, is also possible.

The operating system used of the terminal 96 00 is 'Android'. This allows applications, so-called apps, to be used flexibly at the terminal. The system can be expanded at any time to make it suitable for a wide range of tasks or also be supplemented by apps specifically developed for customer requirements.

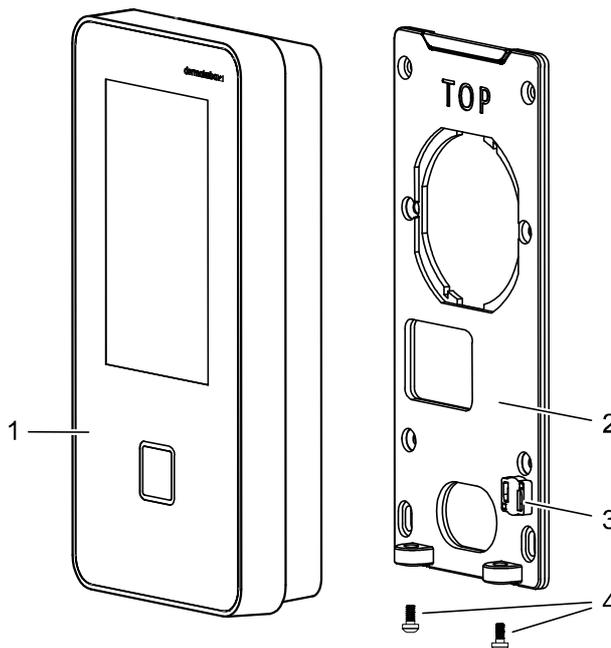
To display information, the terminal has a graphic 4" TFT colour display with a resolution of 480 x 800 pixels. Located above the display is a capacitive input field, which is operated by touching the glass front.

The person-related data is recorded by a contactless RFID reader

The communication with the superior system takes place via Ethernet. Alternatively and optionally, communication can also take place via UMTS or WLAN.

The terminal is supplied with power via PoE (Power over Ethernet).

### Device structure



The product consists of the terminal housing (1) and the mounting plate (2).

The mounting plate (2) is the wall-mounting element of the device. The terminal (1) is hung into the mounting plate (2) and secured with two screws (4) from below.

The network cable is led to the terminal from the rear. The network connection is located on the rear of the terminal.

The product has a magnetic sabotage contact (3). The terminal software uses it to detect when the housing is removed from the mounting plate and generates an alarm record.

## Technical data

### System

#### Operating system

- Android version 5.0.2 (Lollipop)

#### CPU

- Freescale i.MX6DualLite processor

#### Memory

- 2 GByte DDR3 RAM
- 8 GByte eMMC Flash

Parameters and data records are retained without supply voltage.

#### RTC

The device has an integrated real-time clock. The function of the RTC is ensured for about 2 months without power supply of the device.

#### Display

- TFT LCD display module
- Size: 10 cm (4.0")
- Resolution: 800 x 480 pixels (16:9 diagonal)
- Colour depth: 24-bit (true colour)
- Luminance: 350 cd/m<sup>2</sup>
- Backlit with 8 LEDs

#### Touch screen

- 4" PCAP touch screen over the complete display

#### Audio

- Integrated loudspeaker (1 W)

### Interfaces/Communication

#### Ethernet interface

- IEEE802.3 compatible 10BASE-T/100BASE-TX /1000BASE-T Auto sensing, Auto MDIX

#### WLAN (optional)

- According to IEEE802.11 b/g/n (2.4 GHz)
- Encryption: WPA2-PSK

#### Mobile radio (option)

- 3G (UMTS) 900/2100 MHz (dual band)

### Power supply

#### PoE (Power over Ethernet)

Power supply of the terminal via the 8-wire Ethernet cable (max. 100 m)

- According to IEEE802.3af
- PD type 1
- Performance class 0 (0.44-12.95 W)
- Supported feed processes: Spare pair feed and phantom feed

### Reader

Depending on design, the terminal supports the following readers:

#### RFID reader

- MRD - LEGIC prime/advant, MIFARE Classic/DESFire
- HID - iCLASS SE, iCLASS, Prox, Prox II

### Ambient conditions

#### Ingress protection according to IEC 60529

- IP20
- IP65 (with optional cable sealing)

#### Relative humidity

- 5% - 85%, non-condensing

#### Ambient temperature

- -25 °C – +55 °C (operation)
- -25 °C – +70 °C (storage)

### Dimensions

- Width: 89 mm
- Height: 177mm
- Depth: 32 mm

### Conformity

CE This product complies with the standards

EN 62368-1:2014

EN 300330-2 V1.6.1

EN 301489-3 V1.6.1

according to the provisions of the EU directive

2014/53/EU - Radio Equipment Directive (RED)

RoHS This device complies with the regulations of Directive 2011/65/EU.

 The original declaration of conformity can be downloaded in PDF format from [www.kaba.com/conformity](http://www.kaba.com/conformity).

## Installation

### Fastening the mounting plate

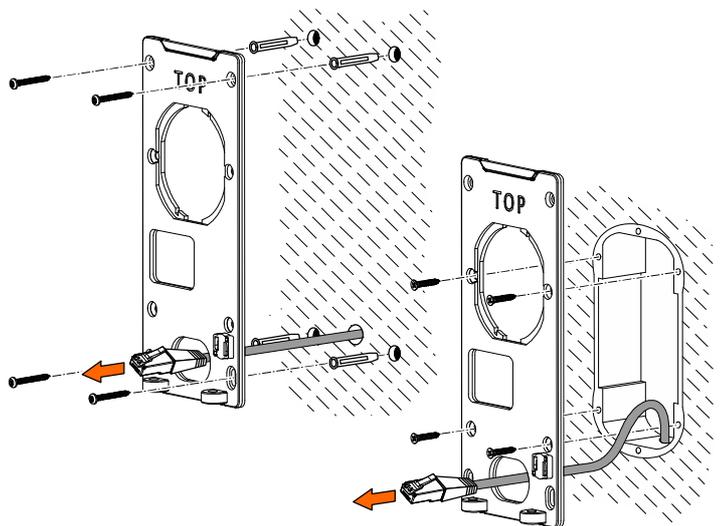
The mounting plate can be installed directly on the wall or on a double switch box according to DIN 49073-1. The mounting plate has for each of the two fastening variants 4 fastening holes.

For direct fastening of the mounting plate to the wall, 4 dowels SX6 and 4 suitable wood screws are included in the delivery.

For fastening the mounting plate to a switch box, 4 countersunk screws are included in the delivery.

When mounting on different surfaces, use suitable fastening material.

If you use other fastening screws, make sure that the flat head of the screw disappears completely in the perforation in the mounting plate.

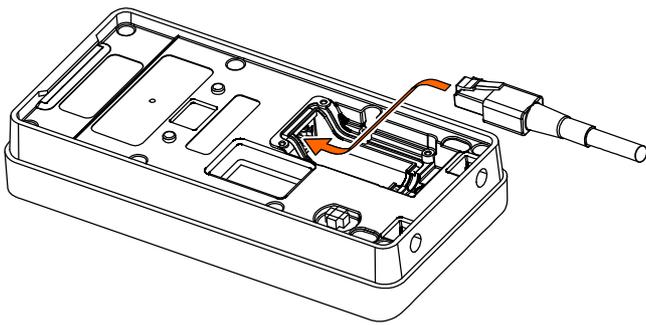


The mounting plate may not be mounted twisted. The screws may only be tightened slightly. The mounting plate may not be deformed or bent.

In case of soft mounting surfaces, make sure that the housing is not pressed into the surface when mounting it. The unevenness of the mounting surface may not exceed 0.5 mm. The unevenness of the mounting surface may have to be compensated for or adjusted by means of suitable measures (e.g. washers).

### Connecting the network cable

The Ethernet connection (RJ45 socket) is located on the rear of the terminal housing.



### Fastening the sealing cap

The increased ingress protection according to IEC 60529 specified in the technical data is only reached when using this additional cable cover.

The sealing cap for cable sealing is an optional accessory of the terminal 96 00.

#### Scope of delivery

- 1x sealing cap
- 1x seal with cable passage Ø 5.7 mm
- 1x seal with cable passage Ø 8.2 mm
- 1x self-adhesive foam strip 1.0 mm thick
- 1x self-adhesive foam strip 2.0 mm thick
- 6x fillister head self-tapping screw
- 1x TORX screw wrench T6

#### Principle

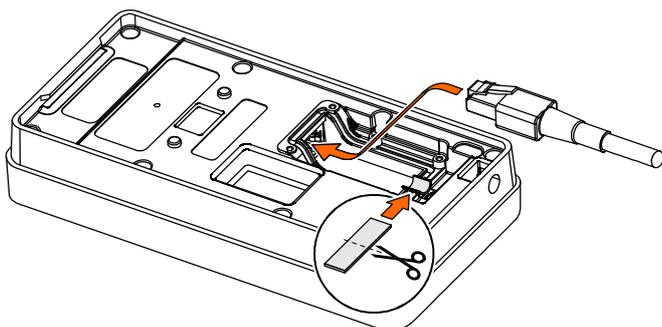
The sealing cap is fastened to the rear of the terminal via the network connection. Depending on the diameter of the network cable, additional measures for sealing the cable entry are required.

- 1 Use seal with corresponding cable passage.
- 2 Attach a semicircular foam strip to the cable entry of the terminal housing.
- 3 Wrap foam strip around the network cable using full circles in the area of the cable entry.

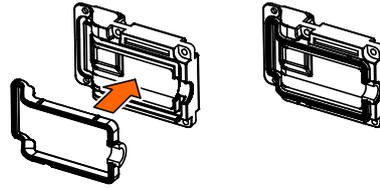
Cable	1	2	3
Ø 4.5 mm - Ø 5.5 mm	Ø 5.7 mm	1 mm	2 mm
Ø 5.6 mm - Ø 6.0 mm	Ø 5.7 mm	-	-
Ø 6.1 mm - Ø 7.0 mm	Ø 8.2 mm	-	2 mm
Ø 7.1 mm - Ø 7.5 mm	Ø 8.2 mm	-	-
Ø 7.6 mm - Ø 8.5 mm	Ø 8.2 mm	-	1 mm

#### Procedure

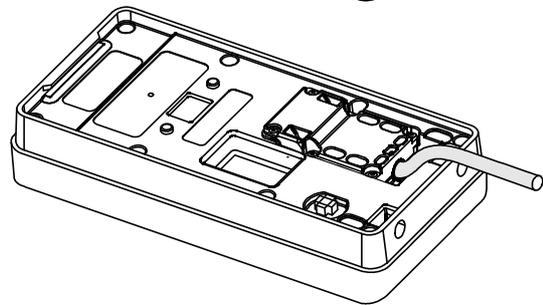
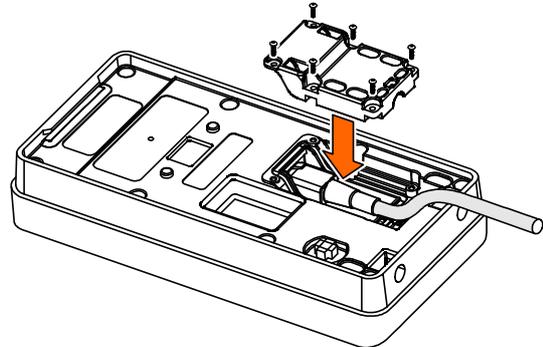
1. If required, attach foam strip (see table).
2. Connect the network cable.



3. Insert the seal with suitable cable passage (see table) into the sealing cap.

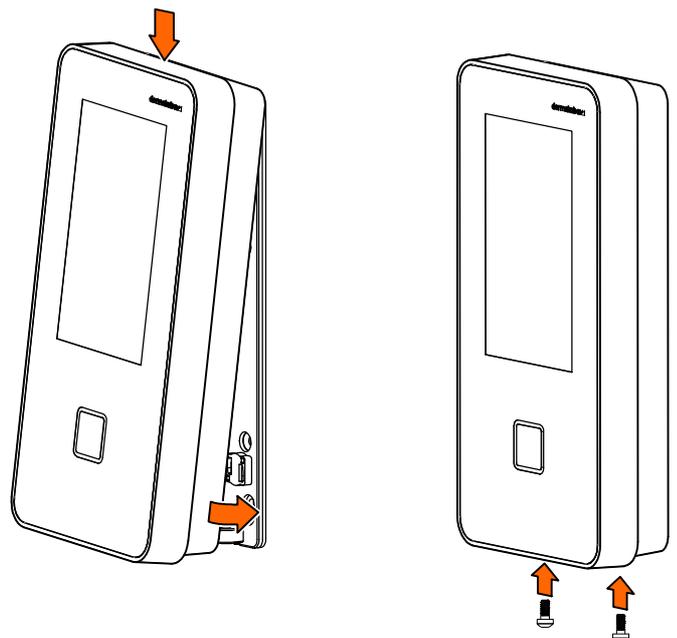


4. Fasten the sealing cap above the connection area using 6 screws.



### Fastening the terminal housing to the mounting plate

1. Hang terminal into the mounting plate at the top and press against it at the bottom.
2. Secure terminal housing on the mounting plate using 2 screws M3x6.



# Commissioning

## Network requirements

Start-up and communication in regular operation are done via an Ethernet network.

To guarantee unhindered and trouble-free data traffic, the UDP ports used for communication must have been enabled.

The firewall configuration must therefore be adapted accordingly.

## Communication

The UDP port used for communication between B-COMM and the terminal must have been enabled.

The UDP port is in the range from 7700 hex. to 77EF hex. (30464 dec. to 30703 dec.), depending on configuration.

## Automatic registration via B-COMM

The network must have been equipped with a working DHCP server.

It must be possible to transfer UDP data packages unhindered to the B-COMM server.

- IP address 239.255.255.250, UDP port 1900 dec. and UDP port 7900 (30976 dec.) must have been enabled.
- The SSDP service has to be enabled in the Windows service management.
- The SFTP connection via the standard port 22 must have been enabled.

## Automatic registration via B-COMM

Start-up of the terminal takes place largely automatically in connection with the communication software B-COMM.

**i** The device is preset at the factory for automatic registration via B-COMM.

For communication via WLAN, the connection must have been previously set up and activated. This is done via the system settings.

## System requirements

- B-COMM communication software version 4.0 and higher.
- Network with a working DHCP server.

## Start-up procedure

1. Connect the power supply for the device.
  - ⇒ After booting, the device cyclically reports to the B-COMMs active in the network.
  - ⇒ At this point, until start-up by a B-COMM is complete, the message **'Waiting for registration'** is displayed on the display.
  - ⇒ Once the device is detected by B-COMM, the relevant data that identifies the device will be queried.
  - ⇒ If the device is not known, it will be entered in B-COMM under the B-COMM Terminal Discovery client under BCTDS (Terminal Discovery Stream).
2. Add device in B-COMM to the desired communication channel.
3. Provide device with the appropriate communication parameters.
  - ⇒ After having assigned the device permanently to B-COMM, B-COMM first updates the settings of the device and then makes a backup of the settings together with the 'sop.ini' licence file.
  - ⇒ The device now reports to the B-COMMs active in the network that registration has been carried out, after which the device will be removed again from the BCTDS stream by the other B-COMMS.

4. Load specific parameters and master records to the device.
  - ⇒ The terminal software is restarted automatically. After that, the device is ready-to-operate.

## Devices with MRD reader (multi-reader device)

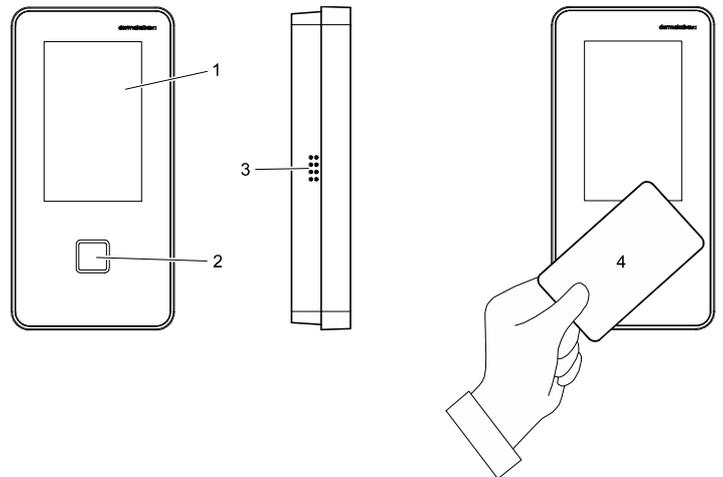
Devices with MRD reader support LEGIC or MIFARE media, depending on the reader type set.

For LEGIC media, the 'LEGIC\_4200' reader type has been factory-preset. For processing MIFARE media, the reader type must be changed to 'MIFARE\_4200'.

The reader type can be adjusted in the following ways:

- Locally on the device via the test program or service interface
- Remote via the service interface
- Via the B-COMM communication software

## Operating elements



- 1 Display and capacitive control panel  
The capacitive control panel extends over the entire display surface. The control panel is operated by touching and wiping with a finger.
- 2 Luminous ring and input field for RFID media  
Contact-free RFID media (4) are simply held in front of the entry field of the RFID reader.
- 3 Acoustic signal generator  
It is used for signalling certain operating states and thus for user guidance.

POE standard Input Voltage: 44-57V, Rated Voltage:48V

Temperature: -25~55°C

Receiver category: 3

GSM900 880MHz~960MHz Output Power:33±2dBm  
GSM1800 1710MHz-1880MHz; Output Power: 30±2dBm  
WCDMA B1:1920MHz-2170MHz; Max Power:23±2.7dBm  
WCDMA B8:880MHz-960MHz; Max Power:23±2.7dBm  
BT: 2402~2480MHz, Max EIRP:3.52dBm;  
RFID:13.56MHz;

CAUTION RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.RF exposure information: The Maximum Permissible Exposure (MPE) level has been calculated based on a distance of d=20 cm between the device and the human body. To maintain compliance with RF exposure requirement, use product that maintain a 20cm distance between the device and human body.

Federal Communication Commission (FCC) Radiation Exposure Statement:

When using the product, maintain a distance of 20cm from the body to ensure compliance with RF exposure requirements. FCC statements:

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

IC Notice:

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This device complies with Canada Industry licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference. and (2) this device must accept any interference. Including interference that may cause undesired operation of the device.

CAN ICES-3 (B)

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage; (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

NMB-3 (B)

When using the product, maintain a distance of 20cm from the body to ensure compliance with RF exposure requirements. Lors de l'utilisation du produit, maintenez une distance de 20 cm du corps afin de vous conformer aux exigences en matière d'exposition RF.