

GT7.3x27

User Manual for G7 Ticketing Terminal



Installation, Configuration, Operation

Document Version 1.0 | SW Versions 2.11.1 (G7 Access App), 3.8.10 (GT7.3x27 Firmware)



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1. IMPORTANT INFORMATION

Dear customer,

To ensure that our product operates with safety and to your complete satisfaction, please take this opportunity to familiarize yourself with the following guidelines.

- Pay attention to the safety messages in this manual. The messages are indicated by the signal words "DANGER", "WARNING", or "CAUTION", and inform you about hazardous situations and how to avoid them.
- Also observe information marked with the signal word "NOTE". These contain important information for avoiding damage to property.
- Pay attention to the symbols and warnings on the product.
- Read through all the information that affects your target group carefully before installing or operating the device.
- Unless specifically documented elsewhere, the installation, commissioning, and maintenance of the product is the responsibility of the customer.

1.1. Important safety information

	<ul style="list-style-type: none"> - The installation, commissioning, and maintenance of our devices must only be performed by suitably trained personnel. In particular, electrical connections must only be made by correspondingly qualified specialists. Always observe the relevant installation regulations in accordance with the national Electrical Engineers Association -> Work by unqualified personnel can lead to injuries (e.g. electric shock). - Unless otherwise stated, the installation and maintenance of our devices must only be carried out in a voltage-free state. This applies in particular to devices that are connected to the low-voltage network. -> If the device is not disconnected from the supply voltage, touching terminals or internal parts can result in minor injuries (electric shock).
	<ul style="list-style-type: none"> - It is forbidden to make alterations to the product (device, connection cable): - Do not remove protective shields and covers from devices. -> Removing protective shields and covers may result in personal injury or property damage. - Do not attempt to repair or restart products on your own after a defect, fault, or damage. In this case, be sure to contact your Gantner representative or the Gantner Support Team.
	<ul style="list-style-type: none"> - Installation, commissioning, operation, and maintenance of the purchased product must be carried out as intended, i.e., in accordance with the technical conditions of operation as described in the corresponding documentation. It is therefore essential that you read the relevant chapters in this manual and proceed accordingly. - If there are still some points that are not entirely clear, do not take a chance. All queries can be clarified by your Gantner representative or the Gantner Support Team. - Immediately upon receipt of the goods, check the packaging and the product or data carrier visually to ensure that it is intact. Also check that the delivery is complete and includes all accessories, documentation, auxiliary devices, etc.

	<ul style="list-style-type: none"> - If the packaging was damaged during transport or if you suspect damage or a malfunction of the product, the product must not be put into operation. In this case, contact your Gantner representative who will endeavor to resolve the problem as quickly as possible. - Unless otherwise stated, the customer is responsible for the intended installation, commissioning, operation, and maintenance of the product. - Gantner Electronic GmbH assumes no responsibility for injuries or damage resulting from improper use.
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We especially look forward to hearing from you even if you just want to let us know that everything is operating smoothly.

1.2. Certification information



WARNING

This is a Class A device. This device can cause radio interference in the home. In this case, the operator may be required to take appropriate measures.



CAUTION

For security-relevant applications, the device may only be used in secure indoor areas. Alternatively, the device must be protected against manipulation by other measures (e.g. monitoring).

	<p>The GT7.3x27 was developed and manufactured under the ISO 9001 quality management standard.</p>
	<p>Gantner Electronic GmbH is certified according to the ISO 14001 standard for environmental management systems (EMS).</p>
<p>CE</p>	<p>This product is in compliance with the following EC directives, including all applicable amendments:</p> <p>2014/53/EU (Radio Equipment Directive)</p> <p>The complete text of the CE Declaration of Conformity is available via the following link:</p> <p>https://www.gantner.com/en/qr_ZGxN6Ush48</p>
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Contact address of manufacturer

Gantner Electronic GmbH
Bundesstraße 12
6714 Nüziders, Austria

1.4. Software license information

Free software remark

This product contains free software and open-source software. Information about the software used and the corresponding licenses can be found on the integrated web interface of the device.

WARRANTY DISCLAIMER

The open-source software contained in this product is distributed in the hope that it will be useful to you, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the corresponding license texts for more details.

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The software contained in this device contains copyrighted software whose license requires source code disclosure. A copy of this license is included in the integrated web interface of the device. You can receive the appropriate source code from us for a period of three years after the last delivery of the device at a cost of 25 euros (our internal handling and shipping costs). This offer is valid to anyone in receipt of this information.

Please send the device article number, serial number, firmware revision, and your contact details (name, address, city, state, and email address) to the following address:

Software License Compliance

c/o OSS Service Department

Gantner Electronic GmbH

Bundesstraße 12

6714 Nüziders, Austria

1.5. Contact and inquiries

If you have any questions concerning Gantner products, please contact your local sales partner or one of the Gantner branch offices directly. The contact details are available via the following link:

[Gantner Locations](#)

2. GENERAL INFORMATION

2.1. About this manual



NOTE

The general terms "GT7.3x27", "G7 Ticketing Terminal" and also "terminal" are used throughout this manual to refer to both the GT7.3527 and GT7.3727 terminals collectively. If information is applicable to a particular terminal variant, this will be noted.

This manual contains a detailed description of how to install, configure, and commission the GT7.3x27 ticketing terminals. The instructions for completing the electrical connection of external devices as well as the power supply and network connections are also included in the manual.

Different devices, e.g., turnstiles or gates, can be connected to the GT7.3x27. For the processing of signals such as turnstile control and feedback several inputs and outputs are available. The basic functions and configuration settings are described in this manual. For a description of the supplementary devices and applications not listed in this manual, please refer to the documentation of these components.

2.2. Target group



CAUTION

Injury and property/equipment damage

The tasks described in each chapter may only be performed by the specified target group. Unqualified personnel who perform the described tasks risk personal injury or damaging property/equipment.

This manual contains information relevant for the different stages in the operating life of the GT7.3x27. Information about the installation, commissioning, and configuration of the GT7.3x27 is separated into corresponding chapters. When a chapter is intended for a specific audience, this is clarified at the beginning of the chapter.

Information for the following target groups is available in this manual:

- Installation technicians (installation, configuration)
- Service technicians (configuration, operation)
- End users of the device (operation)

2.3. Terminology

Data carrier

A data carrier is a form of identification media that is used by employees and visitors in a facility for identification. Data carriers are available in a variety of different forms such as plastic wristbands and chip cards. Data carriers are also available to suit different RFID technologies (LEGIC, MIFARE®, ISO 15693).

G7 app

General term for the software (app) that is activated on the G7 device to provide the desired functionality. Several G7 apps are available.

G7 Connect

G7 Connect is Gantner's cloud service for the configuration and management of projects that contain Generation 7 Gantner devices. G7 Connect is accessible via a web browser following registration and login.

RFID (Radio-Frequency Identification)

Identification over short distances using radio frequency. An RFID data carrier is used as identification media.

User

This term refers to the end user who is using or operating the Gantner device to complete a function.

Web interface

A web-browser accessible interface that allows the device and app settings to be viewed and configured.

2.4. Intended use

The GT7.3527 and GT7.3727 ticketing terminals are intended for use in leisure facilities such as swimming pools, leisure centers, theme parks and aqua parks. The ticketing terminals are typically installed directly onto a turnstile or similar access control device near entry points to the facility where visitors can read their RFID credential or barcode ticket in order to gain access.

With minimized glare and reflection, the CMOS barcode reader provides optimal reading even in sunny conditions, making the GT7.3x27 suitable for outdoor applications. All 1D and 2D barcodes (e.g. QR codes) can be read with the open and angled positioning of the reader allowing barcode tickets of various sizes and smartphones with a displayed barcode to be read. If RFID credentials are also used in the system, visitors can identify themselves at the terminal by reading their credential at the circular reading field.

Authorization information is indicated by the clearly visible LEDs on top of the terminal with additional indication provided by the illuminated RFID reader and an acoustic signal. The touchscreen and user interface guide the user through the access process. The terminals are suitable for both indoor and outdoor use with all popular RFID and barcode technologies supported by the two variants.

2.5. Functional description

To access the facility, the visitor must read their RFID credential or barcode ticket at the appropriate reader on the terminal. The information is sent over the network (Ethernet or WLAN) to a server for evaluation. A response is then sent back to the terminal after evaluation. When access is permitted, the terminal activates a corresponding relay that unlocks the connected turnstile or gate for a definable period of time.

The configuration of the terminal can be completed on the device itself with limited settings or the full range of settings are available via a web browser (web interface) or via Gantner's G7 Connect. Through the configuration, the functionality of the terminal can be customized to the respective requirements.

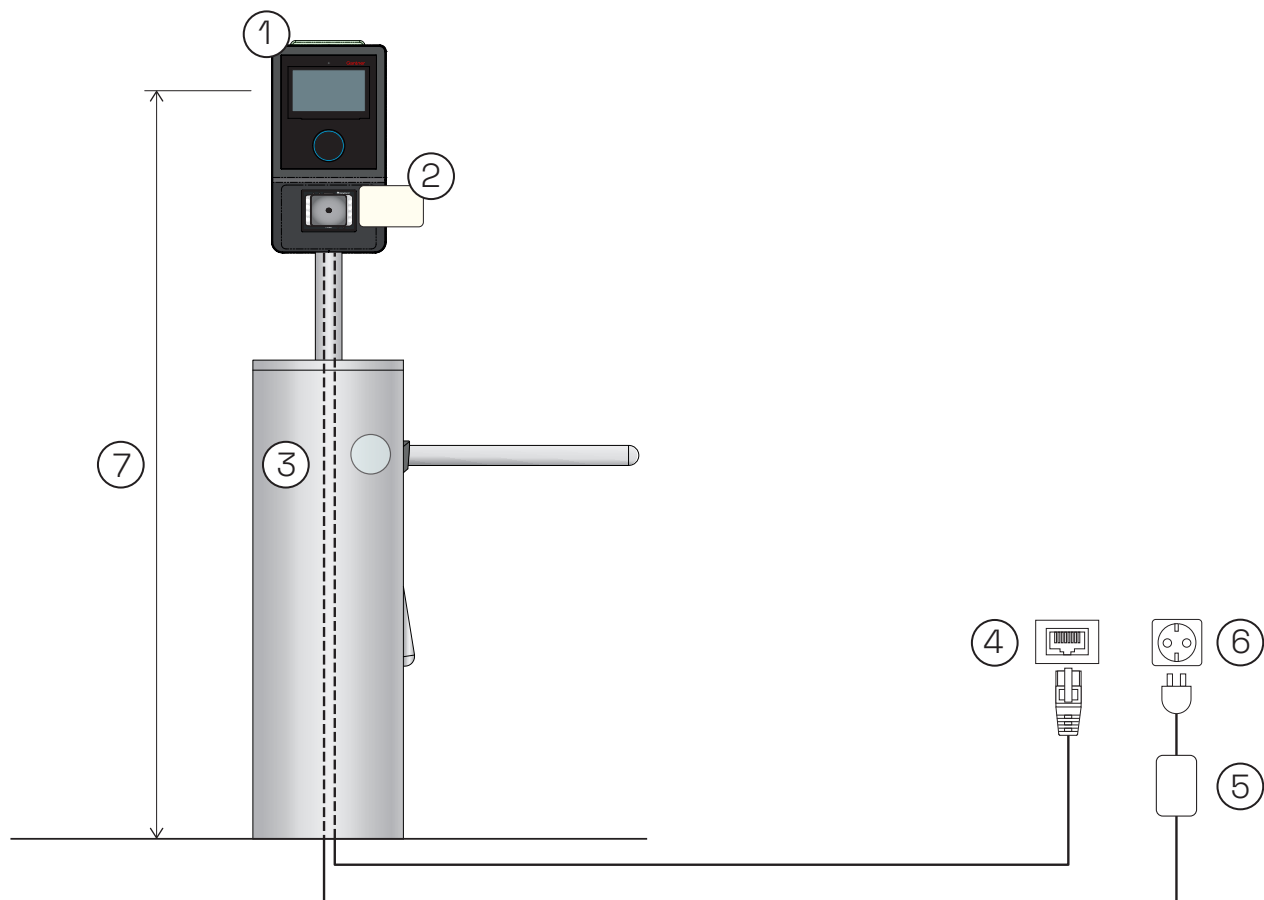
Different RFID readers are installed in the GT7.3x27 to provide compatibility with different RFID technologies. The technologies supported by the two variants are:

- GT7.3527 - Part No. 1113146 (13.56 MHz): ISO 14443 (MIFARE®) and ISO 15693
- GT7.3727 - Part No. 1113147 (13.56 MHz / 125 kHz): LEGIC advant, Proxy and HID iCLASS®

2.6. System overview

The following figure provides an example of how the GT7.3x27 typically operates with the other components in the system.

Figure 1. Typical application of the GT7.3x27 terminal



1. GT7.3x27
2. Credential/ticket
3. Turnstile
4. Network
5. Power supply
6. Power outlet
7. Recommended height = 1.3 m

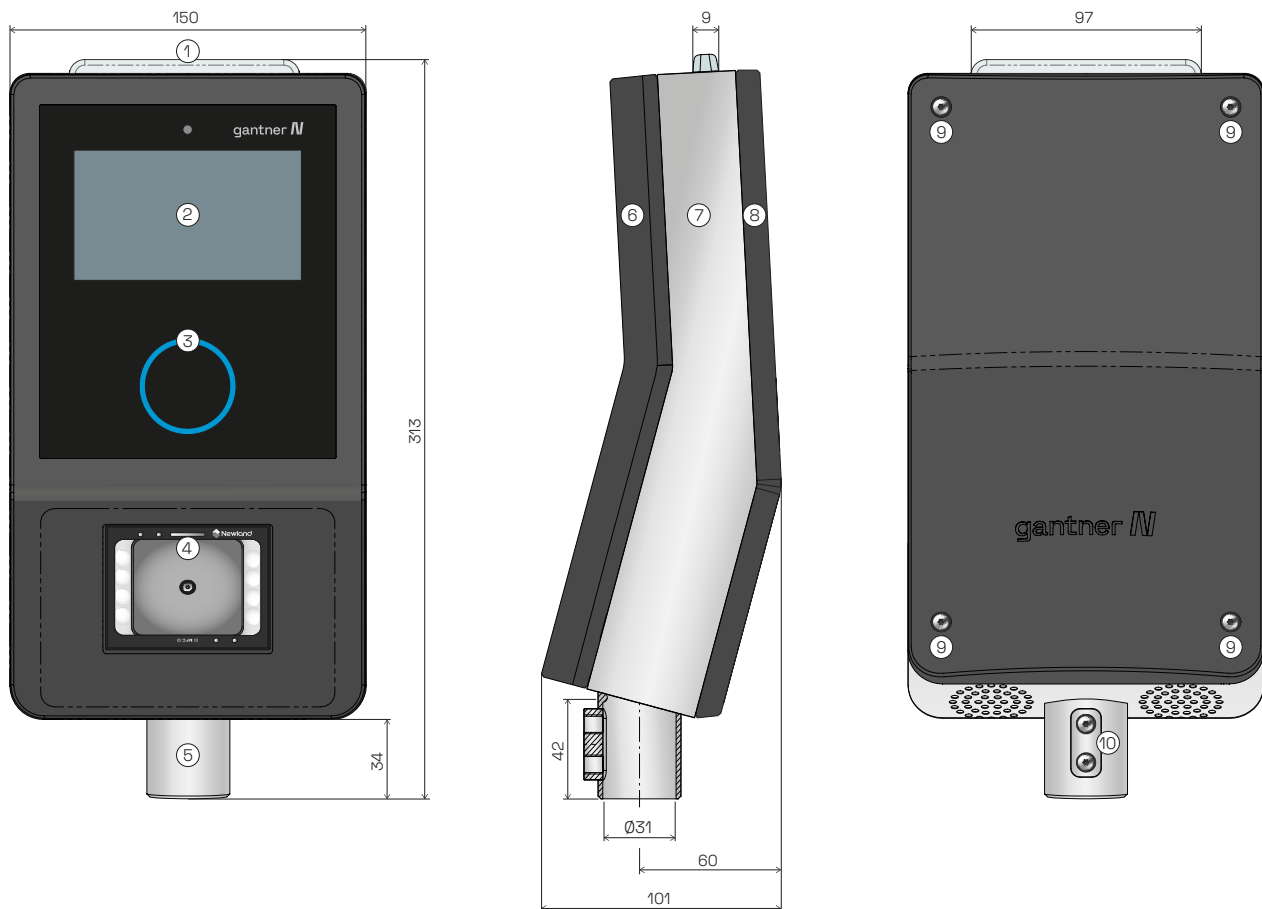
2.7. Device features and dimensions



NOTE

All measurements are in millimeters.

Figure 2. Features and dimensions of the GT7.3x27



1. LED status display
2. Touchscreen
3. RFID reader with LED
4. Barcode reader
5. Tube holder
6. Rear part
7. Middle part
8. Front part
9. Housing screws for rear part
10. Fixing screws for tube holder

2.8. Communication ports

The following ports are used for communication with the GT7.3x27. The response ports are chosen randomly.

Port type	Port number	Incoming / Outgoing	Function
TCP	80 (http) or 443 (https for encrypted connection)	outgoing	For communication with G7 Connect
TCP	80 (http) or 443 (https)	incoming	For communication with the web interface
TCP	80 (ws) or 443 (wss)	incoming	For communication with the host software (if used)
TCP	80 (ws) or 443 (wss)	outgoing	For communication with cloud services from software partners (if used, disabled by default)
TCP	8000	incoming	For communication with the host software if the G6 adapter is enabled (disabled by default)
UDP	123	outgoing	Required for time acquisition from an NTP server
UDP	8216	incoming	Allows GAT DeviceFinder to search for Gantner devices in the network (optional)

3. INSTALLATION



CAUTION

Touching live parts can lead to injuries from electrical shock

- Disconnect the device from the power supply before working on the device or installation/disassembly.
- Observe the applicable safety and accident prevention regulations.
- Do not remove protective devices.



NOTICE

Improper work can lead to damage or malfunction of the device

- Installation and maintenance of this device may only be carried out by suitably trained technicians.
- Read the information in this chapter carefully before installing the device.
- Observe the specified technical data and measurement diagrams of the device.
- Always use the correct tools for installation.



NOTICE

RF exposure statement

The users must keep at least 20 cm separation distance from the device, except during the identification and operation process at the device (e.g., touchscreen input), which must be performed as described in this manual.

3.1. Target group

This chapter contains information for the technicians responsible for installing the GT7.3x27. Experience in mechanical work and basic electrotechnical knowledge is assumed. Previous knowledge of the GT7.3x27 or the Gantner access system is not required.

3.2. Installation process



NOTE

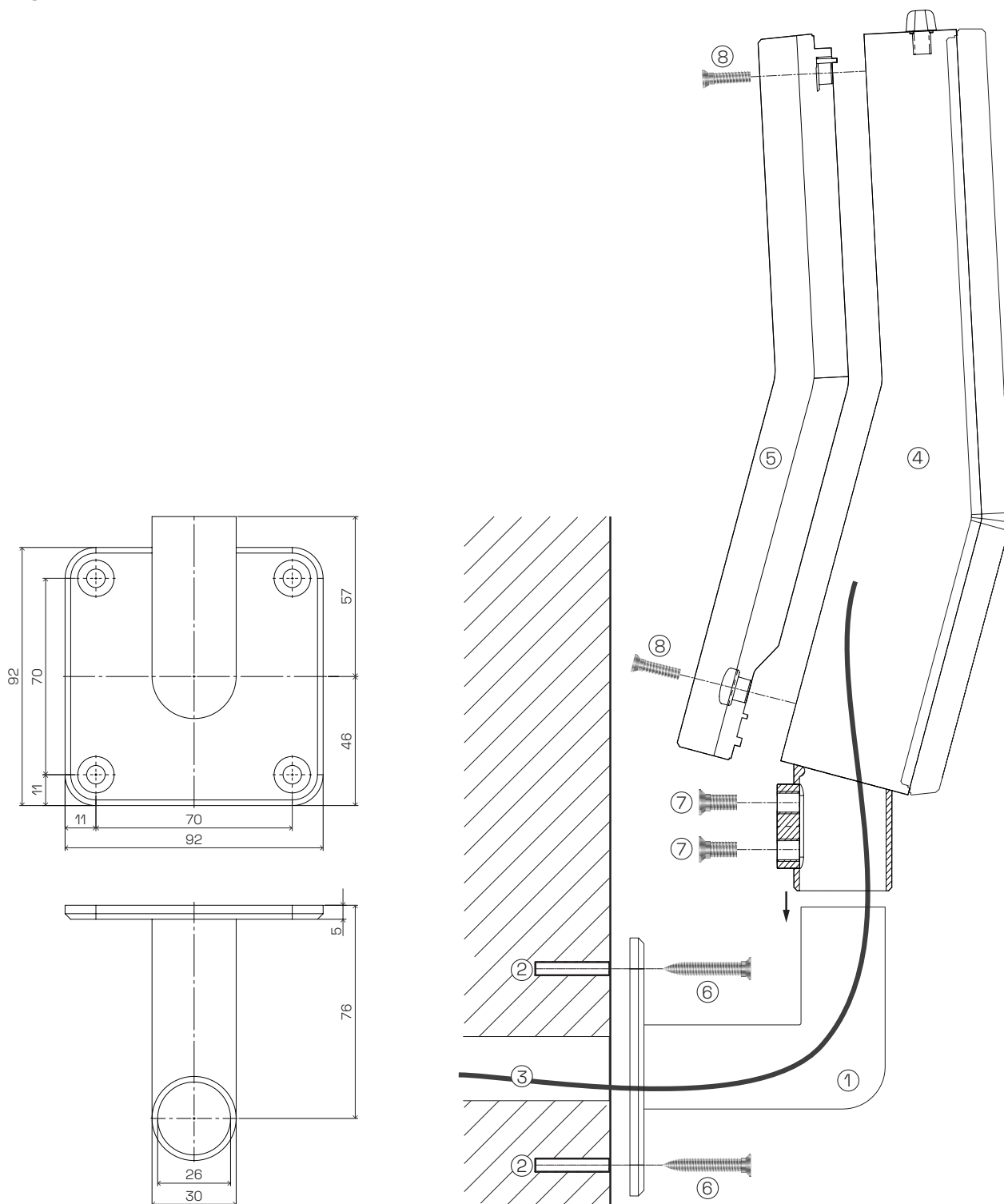
Pay attention to the following points during installation:

- Recommended mounting height: 1.3 m to the middle of the device display.
- If installing the terminal outdoors, the electrical installation and any empty conduits must be sealed airtight to prevent condensation in the terminal. The conduits can be sealed using PE round sealing cord, which is available to order from Gantner (Part No. 1114337).

To install the GT7.3x27 onto a turnstile, flat surface or onto the wall, a tubular holder of Ø 30 mm is used (see [The GAT Holder 6xx0 Range \[18\]](#)). The connection cables run through the tubular holder to meet the electrical connections inside the terminal housing.

During the project planning phase, ensure that the necessary cabling infrastructure is completed as required, e.g., a conduit under the finished floor if using the GAT Holder 6020. The cable installation process is as follows:

Figure 3. Example installation of the GT7.3x27 and GAT Holder 6120



1. GAT Holder 6120
2. Drill holes for holder installation
3. Connection cables
4. Housing middle part
5. Housing rear part

6. Holder wall mounting screws
7. GT7.3x27 tube fixing screws
8. Rear part screws



NOTE

The following instructions are applicable for the GAT Holder 6120. However, the installation process is similar for the other holders in the GAT Holder 6xx0 range (see [The GAT Holder 6xx0 Range \[18\]](#)).

For detailed instructions on installing the other holders in the GAT Holder 6xx0 range, refer to the document **VB_GT7m-2x00--DE+EN**.

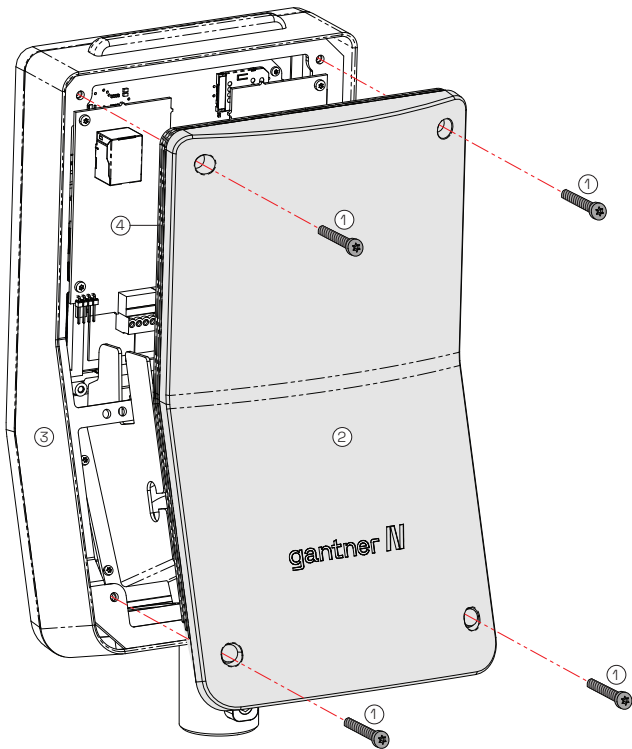
The installation process is as follows:

1. Drill four mounting holes (2) into the wall for the GAT Holder 6120 (1). The screws and wall plugs necessary for a concrete or masonry wall are included with the GAT Holder 6120.
2. Feed the connection cables (3) through the tube of the GAT Holder 6120 (1).
3. Attach the GAT Holder 6120 (1) to the wall using the four mounting screws (6).
4. Unscrew the four screws (8) and remove the housing rear part. See [Opening / closing the housing \[17\]](#).
5. Feed the connection cables (3) through the housing middle part (4) and mount the middle part onto the GAT Holder 6120 (1).
6. Complete the electrical connections. See [Electrical connections](#).
7. Use cable ties to secure the cables to the holes provided in the housing middle part.
8. Reattach the housing rear part (5) to the middle part (4). See [Opening / closing the housing \[17\]](#).
9. If desired, rotate the terminal to the desired position on the GAT Holder 6120.
10. Tighten the two tube fixing screws (7) firmly so that the terminal is secure and cannot be removed from the GAT Holder 6120.

3.3. Opening / closing the housing

The rear housing part of the GT7.3x27 must be opened to install the tubular holder and complete the electrical connections.

Figure 4. Opening / closing the housing



1. Housing screw
2. Rear part
3. Middle part
4. Housing seal

To open the housing:

1. Unscrew and remove the four housing screws (1) on the rear part while firmly holding the front part of the terminal.
2. Hold each side of the rear part (2) and remove it from the middle part (3).

To close the housing:

1. Insert the rear part (2) carefully into the middle part (3). Take care to ensure that the housing seal (4) is correctly inserted the middle part and not damaged during this process.
2. Secure the rear part using the four housing screws (1).

3.4. The GAT Holder 6xx0 Range

To facilitate the installation of the GT7.3x27, Gantner provides a range of tubular holders designed to suit different installation requirements. For all holders, the electrical cabling is designed to be fed through the pole to connect to the terminal, which provides a neat cable-free appearance.

The following GAT Holder 6xx0 holders with a Ø 30 mm tube are suitable for the GT7.3x27.

GAT Holder 6010 L - Part No. 142019



Stainless steel holder used to install the terminal on top of a turnstile, gate or desk. The holder has a 210 mm pole height from the mounting surface to the bottom of the terminal. The GAT Holder L has a 1-inch thread and requires a drill hole of min. Ø 35 mm in the mounting platform to allow installation.

GAT Holder 6020 - Part No. 767083



Stainless steel holder used to install the terminal onto the floor. The holder has a 1209 mm pole height from the mounting surface to the bottom of the terminal. Three mounting holes in the base of the holder provide a secure anchoring point.

GAT Holder 6080 - Part No. 430621



Stainless steel holder used to place the terminal onto a table or desk. No installation is required but a hole can be drilled in the surface where the terminal will sit for the connection cables. Alternatively, the cables can simply run under the base of the holder and lie on the desk.

GAT Holder 6090 - Part No. 640422



Stainless steel holder used to mount the terminal onto a wall. The holder has a 260 mm pole height to the bottom of the terminal. Three mounting holes in the wall plate of the holder provide a secure anchoring point.

GAT Holder 6120 - Part No. 1114703



Stainless steel holder used to mount the terminal onto a wall. In comparison to the GAT Holder 6090, this holder has a shorter pole height of approx. 62 mm to the bottom of the terminal. Four mounting holes provide a secure anchoring point.



NOTE

The installation instructions for each GAT Holder 6xx0 are provided in a separate document (VB_GT7m-2x00--DE+EN), which is available to download from the Gantner website here:

https://www.gantner.com/en/qr_CVSiwMPv4Q

4. ELECTRICAL CONNECTIONS



WARNING

Touching live parts can lead to serious injury or death from electrical shock

- Disconnect the power supply before working on the device or installation/deinstallation.
- Observe the applicable safety and accident prevention regulations.
- Observe the specified technical data and technical drawings of the device.
- Protective devices must not be removed.

4.1. Target group

This chapter contains information for the technicians responsible for completing the electrical connection of the GT7.3x27. This work may only be carried out by qualified personnel. Previous knowledge of the GT7.3x27 or other Gantner devices is not required.

4.2. Network connection (LAN/WLAN)



NOTE

See [Network connection via LAN \(Ethernet\) \[25\]](#) for information on the LAN network connection.

To connect the GT7.3x27 to a server (host), a LAN connection via Ethernet is recommended. 10/100 Mbps communication and IPv4 / IPv6 are supported. It is recommended to connect each GT7.3x27 directly to a separate switch or patch panel socket.

Alternatively if a LAN connection is not available, communication via WLAN is also possible via the internal USB port of the GT7.3x27. For this purpose, the terminal is supplied with a **WLAN Stick Archer T2U Nano** (Part No. 1108854) pre-installed.



NOTE

To use the WLAN function, it must be enabled and configured in the web interface settings on the **Device Configuration > WLAN** page.

4.2.1. Network connection via LAN (Ethernet)

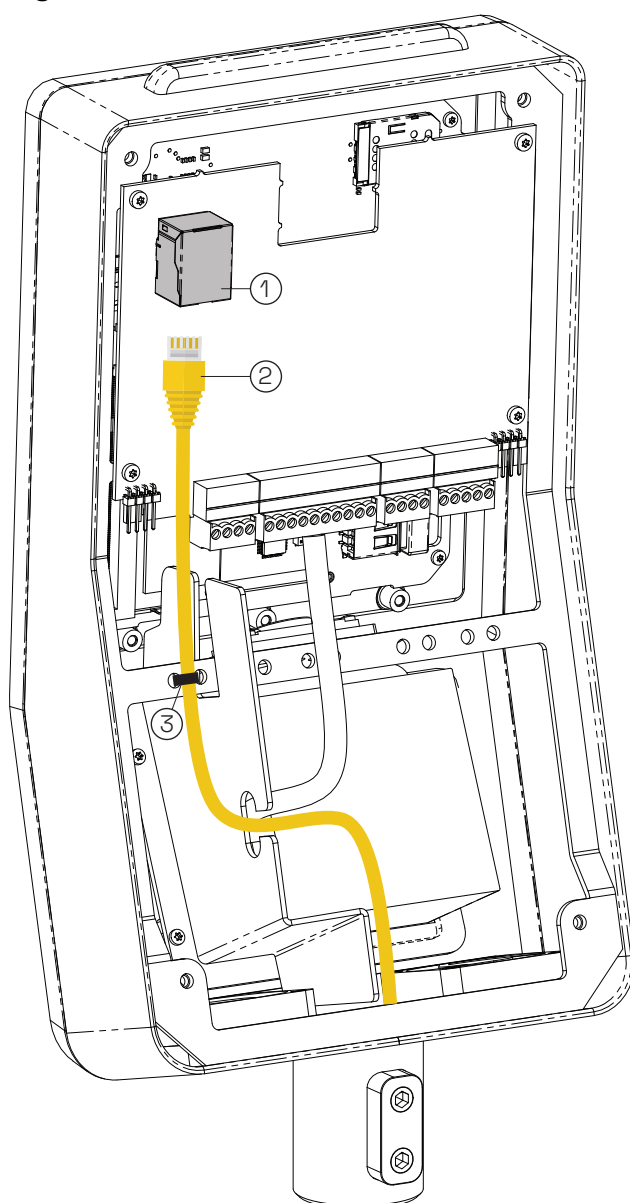


NOTE

Recommended cabling for LAN Ethernet

- Shielded and twisted data cable (recommendation min. CAT. 5 for 100 Mbps)
- Max. cable length = 100 m

Figure 5. LAN connection



1. RJ45 connector
2. Ethernet cable
3. Cable tie

Connect the GT7.3x27 to a PC/server via Ethernet as follows.

1. Plug the Ethernet cable (2) into the RJ45 connector (1) of the GT7.3x27.
2. Secure the Ethernet cable to the housing using a cable tie (3).
3. Connect the Ethernet cable to a separate port on the network switch. Depending on the standard used, the wire colors for the Ethernet cable are as follows:

Table 1. Ethernet wire colors

Terminal	Signal	Wire color TIA-568A	Wire color TIA-568B
RX –	Receive signal RX –	orange	green
RX +	Receive signal RX +	orange/white	green/white
TX –	Transmit signal TX –	green	orange
TX +	Transmit signal TX +	green/white	orange/white
Shld	Shield	-	-
DC+	PoE supply +	blue/white	blue/white
DC+	PoE supply +	blue	blue
DC-	PoE supply -	brown/white	brown/white
DC-	PoE supply -	brown	brown

4.3. Input and output connections

External components, e.g., turnstiles and doors, can be connected to the GT7.3x27. The terminal has two relay outputs for controlling an access point and one optocoupler input for status acquisition. The outputs are potential-free relays and must be connected to the corresponding control inputs at the turnstile or door. The input is an optocoupler input and a corresponding supply voltage is required for detecting the correct status information.



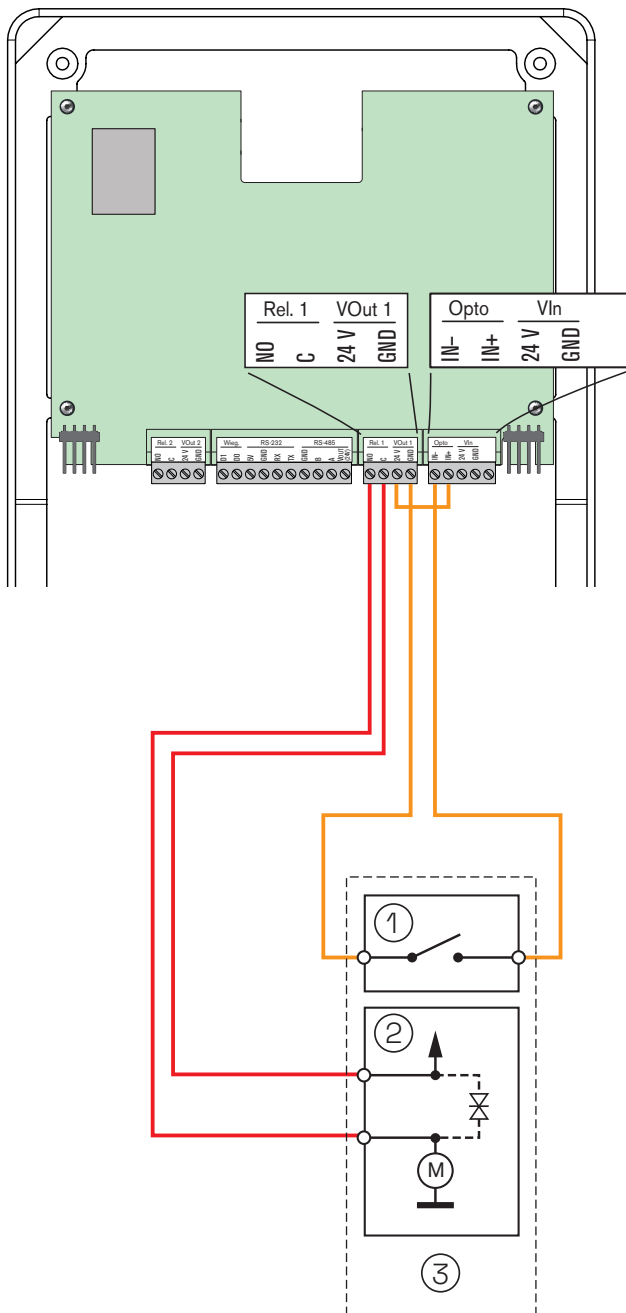
NOTICE

Observe the permitted voltage and power values of the inputs and outputs (see [Technical data](#)).

After connection, the desired function for the input/output must be configured in the app configuration settings of the G7 app that is operating on the terminal. The input and output settings are not available with every app as not all apps require this functionality.

The following figure provides an example of how to terminate the wiring and the general connection to a turnstile. Please also refer to the turnstile or door documentation for more information on these electrical connections.

Figure 6. Connection to a turnstile



1. Feedback contact
2. Motor control
3. Turnstile

4.3.1. Relay outputs

The relay outputs **Rel. 1** and **Rel. 2** can be used to output digital signals to control external components such as door or turnstile openers. Both relay outputs are normally open contacts (NO). The function and timing of the relays are configurable. Use a freewheeling diode and observe the maximum permissible switching voltages and currents.

Connected components must comply with the relevant safety standards (IEC 60950-1 or IEC 62368-1). Supply output VOut 1 and VOut 2 (24 V DC) can be used to supply the external components provided that the performance data is maintained (see [Technical data \[80\]](#)).

Table 2. Relay outputs

Group	Terminal	Signal
Rel. 1/2	NO	Normally open contact
	C	Common
VOut 1/2	24V	Power supply for external components (DC 24 V, max. 300 mA)
	GND	Ground for power supply

The desired function, such as unlock door, deny access, or block external device, must be selected and the activation time of the relay set in the **App configuration** settings of the web interface. The activated app (e.g., Access App) must provide this option in order to use the relays.

4.3.2. Optocoupler input

Digital signals, e.g., for feedback from a connected door, can be received via the optocoupler input.

The **Opto** input is a potential-free input, i.e., a voltage and ground (GND) must be applied.

The voltage or GND can be used from the **VOut** connection terminals as shown in the connection example (see [Figure 6, "Connection to a turnstile" \[27\]](#)).

Observe the maximum permissible input voltages and currents (see [Technical data \[80\]](#)). Connected components must comply with the relevant safety standards (IEC 60950-1 or IEC 62368-1).

Table 3. Optocoupler input

Group	Terminal	Signal
Opto	IN+	Status input +
	IN-	Status input -

4.3.3. Connection of peripheral devices

Peripheral devices can be connected to the GT7.3x27 via the RS-485 and Wiegand interface.

The RS-232 interface is used for the connection to the barcode reader and this wiring should not be disconnected.

Table 4. RS-485 - Connection of external bus-capable devices

Group	Terminal	Signal	Wire Colors
RS-485	VOut	Supply voltage for peripheral device (DC 24 V)	white/brown & brown
	A	Data line A	blue
	B	Data line B	white/blue
	GND	Ground	white/green & green

Table 5. Wiegand - Connection of external readers with Wiegand protocol

Group	Terminal	Signal
Wieg.	D1	DATA1
	D0	DATA0

4.4. Power connection

There are two options for powering the GT7.3x27:

1. Via a separate power supply (LPS and SELV - Limited Power Source and Safety Extra-Low Voltage). See [Power via power supply \[29\]](#).

2. Via Power over Ethernet (PoE) from a suitable PoE network switch. See [Power via PoE \[30\]](#).

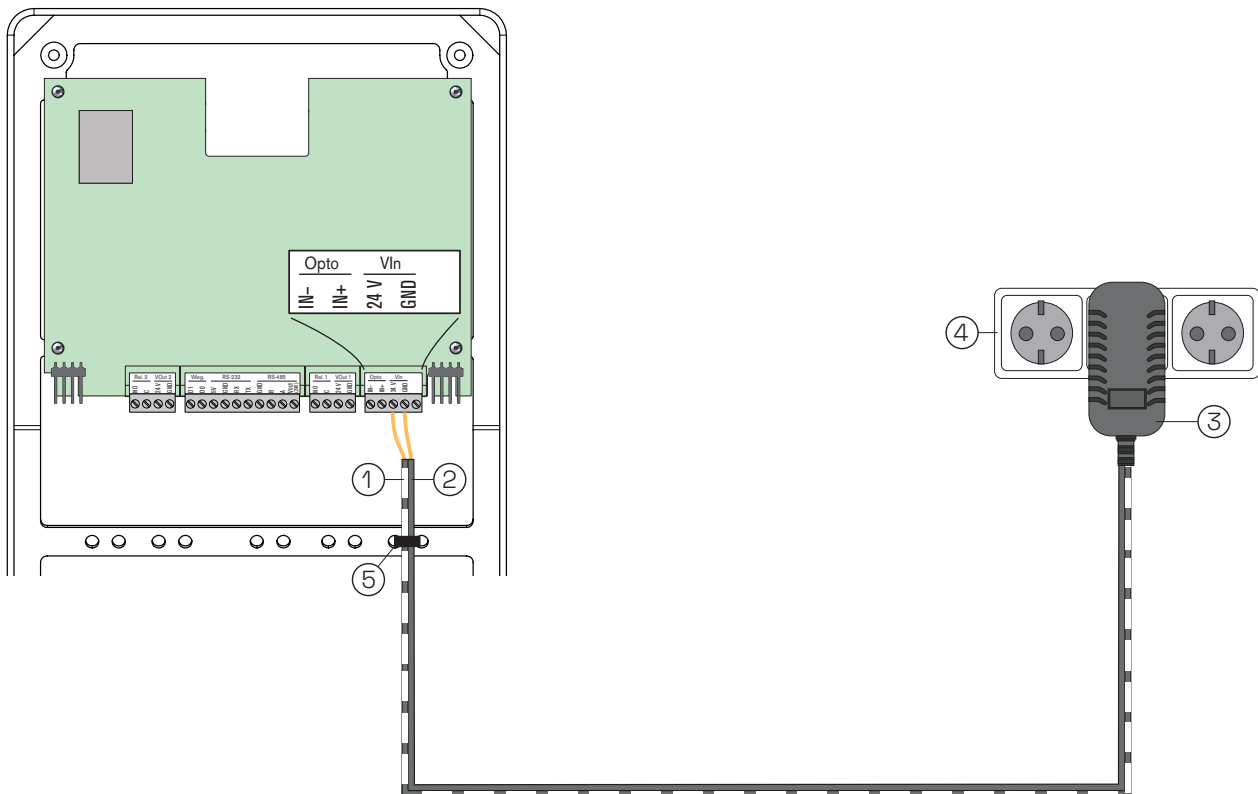
4.4.1. Power via power supply

The GT7.3x27 requires a power supply between DC 12 and 24 V that complies with SELV (Safety Extra-Low Voltage) and LPS (Limited Power Source). The voltage input is protected against reverse polarity.

Gantner offers the following power supplies:

- **GPS7.3092 0.7A-1** (Part No. 1108279): 0.75 A plug-in power supply with country adapter for EU, UK, USA, Australia.
Output: 24 V DC/0.75 A with open ends. Input: 100-240 V AC, 50/60 Hz
- **GPS7.1002 1.5A** (Part No. 1100872): 1.5 A power supply. Country specific mains cable ordered separately (GAT NET.Power Cord). Output: 24 V DC/1.5 A max., input: 100-240 V AC, 50/60 Hz

Figure 7. Power via power supply



1. 24 V wire
2. Ground wire
3. Power supply (GPS7.3092 0.7A-1)
4. Power outlet
5. Cable tie

Complete the following steps:

1. Connect the 24V wire (1) and GND wire (2) of the power supply cable to the **VIn** screw terminals of the terminal as shown in the figure above.

2. Secure the wire to the terminal housing using a cable tie (5).
3. Plug the power supply (3) into the electrical outlet (4).

4.4.2. Power via PoE

The GT7.3x27 requires a power supply between DC 12 and 24 V that complies with SELV (Safety Extra-Low Voltage) and LPS (Limited Power Source). With the PoE functionality of the GT7.3x27 it is possible to use the Ethernet network cable to supply the device with power.



NOTE

See [Network connection via Ethernet LAN](#) for information on the Ethernet wiring required for power supply via PoE.

Consider the following requirements for PoE switches when powering the terminal via PoE:

- Must comply with IEEE 802.3af
- Power class: 0
- Min. 15.4 W per PoE port
- Total power budget: min. 15.4 W x number of ports
- Be aware that some PoE switches do not transmit the supply voltage on separate wires (DC+ and DC-) but superimpose it on the transmit and receive lines (RX+/- and TX +/-). In this case, the terminal is supplied with voltage even if only RX and TX are connected.

5. CONFIGURATION



NOTICE

RF exposure statement

The users must keep at least 20 cm separation distance from the device, except during the identification and operation process at the device (e.g., touchscreen input), which must be performed as described in this manual.

Requirements for use

- To use all the information described in this chapter, ensure that the latest firmware is installed in the GT7.3x27.



NOTE

The firmware can be updated in G7 Connect or in the web interface via **Maintenance > Update firmware**.

5.1. Target group

This chapter contains information for the technicians responsible for commissioning and configuring the GT7.3x27. A basic understanding of electrical engineering is assumed. Gantner recommends that only trained personnel carry out the system configuration. Gantner offers regular training courses for its partners.

5.2. Configuration options

There are three options for configuring the functionality of the GT7.3x27:

1. Via the terminal

Basic information and settings are directly accessible and configurable at the display of the device via the integrated device configuration menu.

2. Via the web interface

In a web browser, an HTTP/HTTPS connection to the GT7.3x27 is established and the web server integrated in the device is displayed. After login, all the device settings as described in the following chapters can be viewed and configured.

3. Via G7 Connect

The GT7.3x27 integrates conveniently into the Gantner Cloud. Here you can see all of your G7 devices displayed in an overview and if the devices are online, they can be configured directly within this platform.

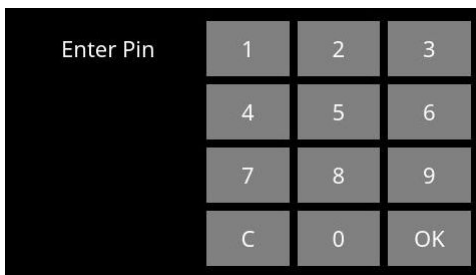
5.3. Configuration via the terminal

Basic settings such as the IP address and DHCP address, etc., can be viewed and configured directly on the GT7.3x27 via the configuration menu. To open the configuration menu, proceed as follows:

1. Write a large **M** on the touchscreen with your finger without removing it.



↪ A keypad for PIN entry is displayed.



2. Enter the PIN code **0815**, and then press **OK**.



NOTICE

For security reasons, change the default PIN code to a secret code. This can be done via the **Device Configuration** settings of the web interface.

After entering the PIN code, the configuration menu is displayed.

3. Via the icons to the left, you can select the desired information or configuration page.



1 ... Display of general device settings

2 ... Display and selection of installed apps

3 ... Configure device settings

4 ... Start active app or restart device

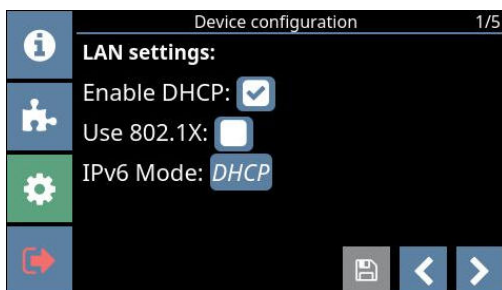
4. Each configuration page has sub-pages (page displayed top right). Use the arrow buttons in the lower-right corner of the screen to scroll through the sub-pages.

5.3.1. Device configuration

The following settings can be configured for the GT7.3x27 via the configuration menu. Depending on the model, some of the settings shown here may not be available for your terminal.

1. To enable a setting, press the box so that a **tick** is displayed.
2. To define a setting that has numbers (e.g., the IP address), press the **wrench** icon.
3. Once you have defined the settings on a page, press the **disc** icon to save the settings.

LAN settings



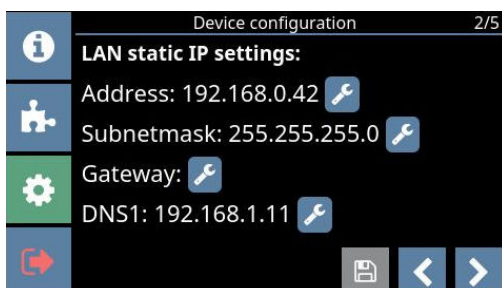
Enable DHCP: When this option is enabled, the network router will assign a dynamic IP address to the GT7.3x27. When not enabled, the **LAN static IP settings** (page 2) are used to determine LAN communication.

Use 802.1X: When this option is enabled, the GT7.3x27 will use the 802.1x protocol for identification.

IPv6 mode: If your network supports using the IPv6 protocol for device addresses, you can select one of the following options to use the protocol.

- **DHCP assigned IP address:** When this option is enabled, the IP address of the GT7.3x27 is automatically assigned by a DHCP server. If you do not want to or cannot use a DHCP server, disable this option and enter the network settings into the **Static IPv4 configuration** section.
- **Static configuration:** Select this option and enter the network settings into the **Static IPv6** section to assign a static address to the device.
- **Stateless address autoconfiguration:** Stateless address autoconfiguration is the process that IPv6 nodes (hosts or routers) use to automatically configure IPv6 addresses for interfaces.

LAN static IP settings



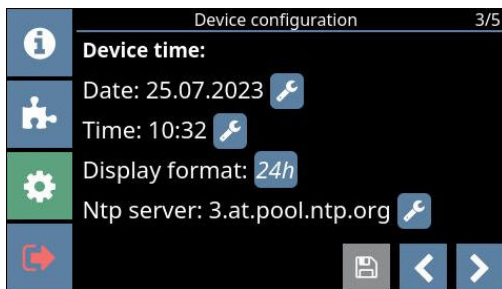
Address: The static IP address of the GT7.3x27 for LAN communication.

Subnet mask: The static subnet mask of the GT7.3x27 for LAN communication.

Gateway: The static gateway address of the GT7.3x27 for LAN communication.

DNS1: The address of the primary DNS server for LAN communication.

Time settings

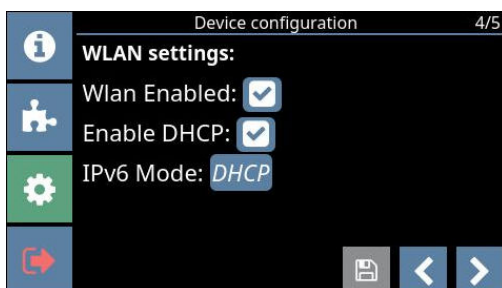


Date / Time: The date and time can be manually set here.

Display format: Select between **12h** or **24h** time format or select **None** to not display the time.

NTP server: The location of the NTP server from which the time is taken automatically. The default server is displayed. To change this address, use the web interface, as only numbers can be entered in the configuration menu on the GT7.3x27.

WLAN settings



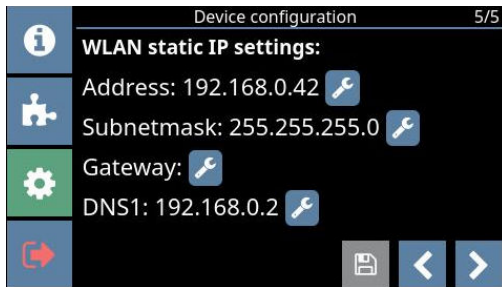
WLAN enabled: Enable or disable the terminal's ability to communicate via Wi-Fi.

Enable DHCP: When this option is enabled, a dynamic IP address will be assigned for wireless communication. When not enabled, a static IP address must be defined for wireless communication.

IPv6 mode: If your network supports using the IPv6 protocol for device addresses, you can select one of the following options to use the protocol.

- **DHCP assigned IP address:** When this option is enabled, the IP address of the GT7.3x27 is automatically assigned by a DHCP server. If you do not want to or cannot use a DHCP server, disable this option and enter the network settings into the **Static IPv4 configuration** section.
- **Static configuration:** Select this option and enter the network settings into the **Static IPv6** section to assign a static address to the device.
- **Stateless address autoconfiguration:** Stateless address autoconfiguration is the process that IPv6 nodes (hosts or routers) use to automatically configure IPv6 addresses for interfaces.

WLAN static IP settings



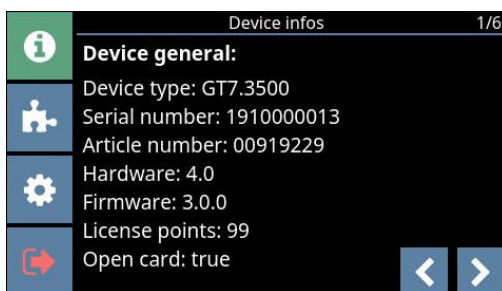
Address: The static IP address of the GT7.3x27 for WLAN communication.

Subnet mask: The static subnet mask of the GT7.3x27 for WLAN communication.

Gateway: The static gateway address of the GT7.3x27 for WLAN communication.

DNS1: The address of the primary DNS server for WLAN communication.

5.3.2. Device information



General device information is displayed on the sub-pages of this menu. Most of the settings shown here can be configured via the device configuration page.

Device type: The type/model of the terminal.

Serial number / Article number: The serial number and article number of the GT7.3x27 are displayed here.

Hardware / Firmware: The version of the hardware / firmware installed in the device.

License points: License points are required to activate certain G7 apps and enable other features. License points can be purchased from Gantner. The available license points are displayed here.

Open card: If **true** is shown here, the terminal can read the UID number of third-party data carriers, i.e., those not supplied by Gantner. To activate this function, the product **G7 Device License Points Open Card** must be purchased and the license code entered into the web interface.

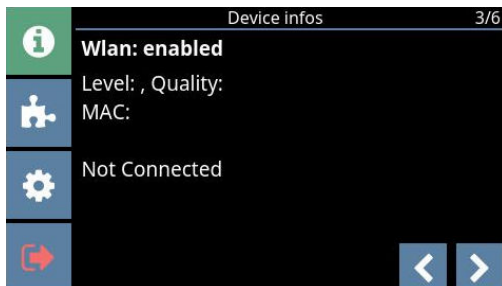
Ethernet



MAC: The MAC address of the device.

IP: The IP address of the device. The first line shows the IPv4 address. If IPv6 is enabled (possible via configuration menu or web interface), the IPv6 address is also displayed in the second line.

WLAN



Here you can see whether the WLAN connection is enabled or disabled. If enabled, you can also see the quality of the WLAN signal and the MAC address.

Network routing



Here you can see the routing settings for the network connection. The top two lines show the information for the IPv4 settings. The settings for IPv6 are shown below if IPv6 has been enabled in the settings. These settings are assigned automatically and cannot be changed.

Status

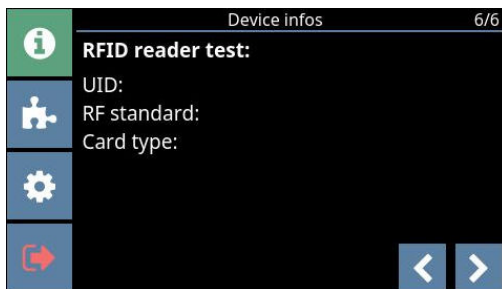


Cloud status: If **connected** is shown here, the connection to G7 Connect is functioning.

Host SW status: If **connected** is shown here, the connection to the host software (e.g., locker management software) is functioning. The text "not connected" means that there is no connection to any host software.

Fingerprint unit / Camera: If **ready** is shown in these fields, the fingerprint reader/integrated camera (if applicable) of the terminal is ready for operation.

RFID reader test



On this page you can use the RFID reader to display the UID number, the used RFID technology, and the type of a data carrier.

- Hold a data carrier next to the reading field (LED ring) of the GT7.3x27.
↪ The data carrier is read, and the respective data is displayed in the **UID**, **RF standard**, and **Card type** fields.

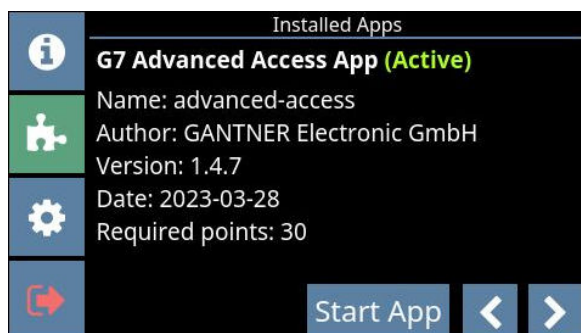
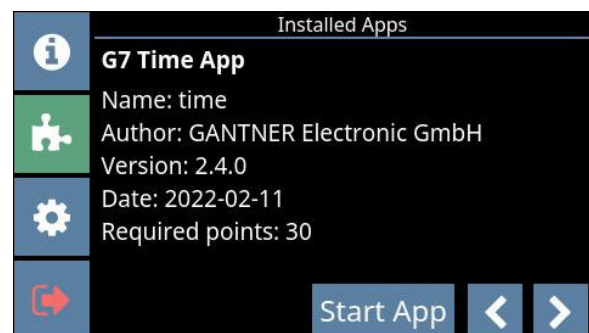
5.3.3. Installed apps

On the **Installed Apps** page, all apps that have been installed in the GT7.3x27 are displayed. Information, e.g., which app version is installed and the required license points, is provided here.



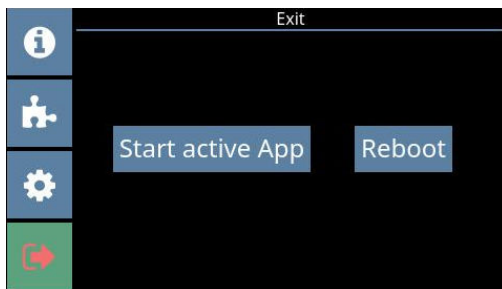
NOTE

New apps can be uploaded to the terminal via G7 Connect or the web interface.



1. To scroll through each installed app, press the arrow buttons in the bottom right of the display.
2. To begin using an app, press the **Start App** button.
↪ The app is loaded (this takes a few seconds), and the default page of the app is displayed after restarting.

5.3.4. Start active app / Reboot device



1. To exit the configuration menu, press the exit icon at the bottom left of the display.
2. Press **Start active App** to start the last active app.
 - ↪ The active app is loaded and after a few seconds the app's home screen is displayed.
3. Alternatively, press the **Reboot** button if you would like to restart the terminal.
 - ↪ The terminal restarts, and the last active app is displayed.

5.4. Configuration via web interface

You can use a web browser to directly access a GT7.3x27 that is reachable via the network.

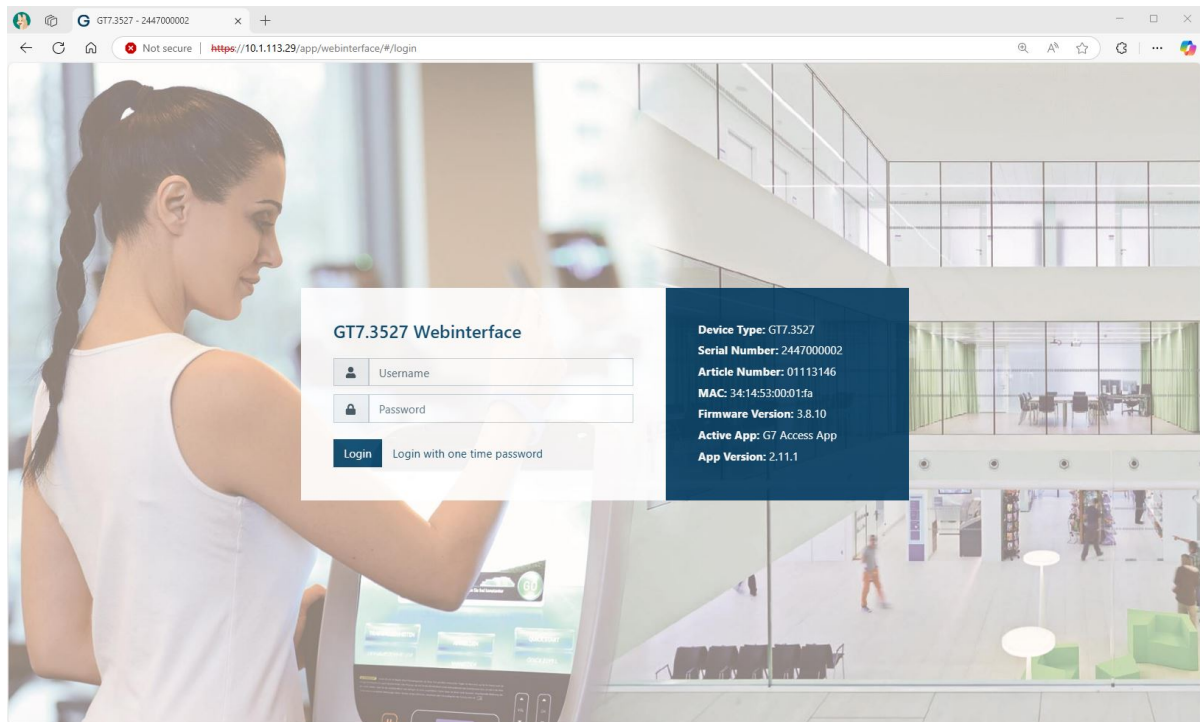
1. Open a web browser (e.g., Chrome or Firefox) on a PC or mobile device.
2. Enter the IP address of the GT7.3x27 into the address line.



NOTE

The GT7.3x27 uses DHCP by default to automatically obtain an IP address from the network. You can use the GAT Device Finder software to scan the network for Gantner devices and see their IP addresses. This software can be downloaded from the Gantner website (login required). Alternatively, ask your network administrator for the IP address.

- ↪ The login page of the web interface opens.



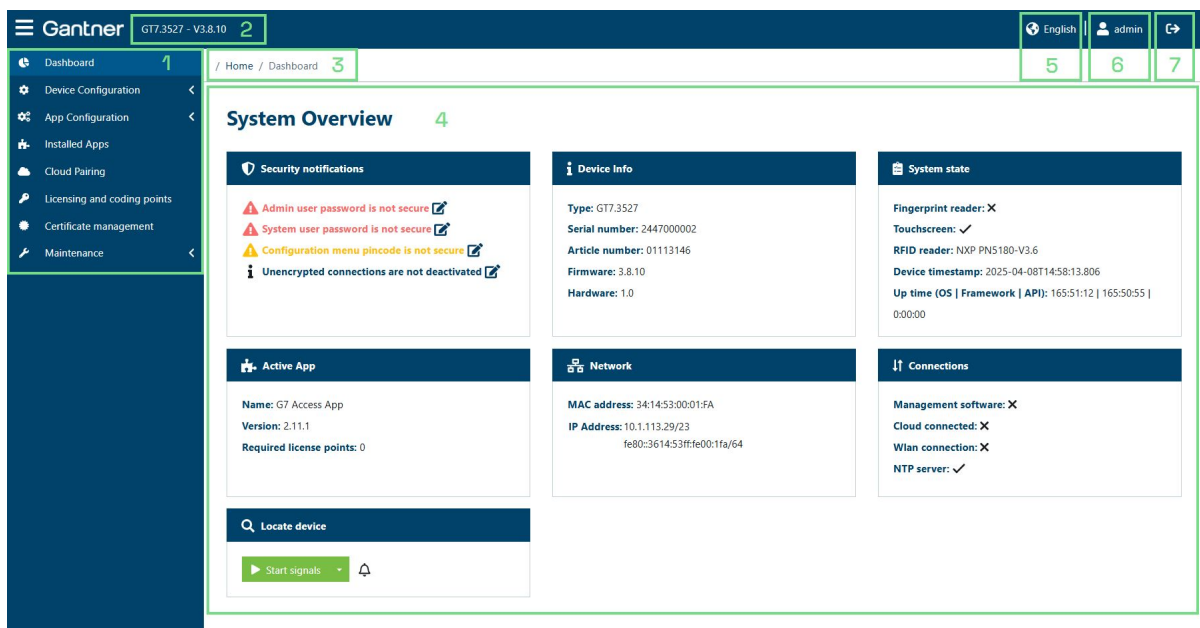
3. Enter your **Username** and **Password**. Click **Login**.



NOTICE

The default username is **admin** and the default password is **GAT**. To maintain security, please change these default details after the initial login (see **Security and user**).

↪ The dashboard of the web interface opens with an overview of the system.



The following areas and functions are available in this window.

1. Use the **configuration menu** to access the settings of the GT7.3x27. Click on the menu button in the top left corner to **show/hide** the configuration menu.

2. The **device type** and **firmware version** are shown here.
3. **Path** of the currently displayed screen.
4. Main **information** screen for the selected configuration menu option.
5. You can change the display **language** here.
6. The logged-in **user** is displayed here.
7. Click on this symbol to **log out** of the web interface.

5.4.1. System overview

An overview of the most important settings and status information of the GT7.3x27 is displayed here.

Security notifications: In this field, important security related information are displayed. If the default administrator password for accessing the web interface has not been changed yet, a notification is shown like in the example above.

Device info: The device type, the serial and article numbers, and the hardware/firmware versions of the GT7.3x27 are displayed here.

System state: Display of which functions are enabled or being used. The time set in the GT7.3x27 and how long the device has been running continuously since the last startup are also displayed.

Active App: The active app with the installed version and the required license points are displayed here. Depending on the device type only certain apps are relevant, for example the G7 Return App for the G7 Return and the G7 Access App for the G7 Ticketing Terminal.

Network: The addresses of the GT7.3x27 on the network are displayed here.

Connections: Shown here are the available network connections and whether they are active (✓) or inactive (X).

- Management software: Connection to a PC software that controls the device. The management software can vary depending on the app being used.
- Cloud connected: Displayed as active (✓) if the GT7.3x27 is connected to G7 Connect.
- Wlan connection: Displayed as active (✓) if the device's network connection is via WLAN instead of LAN.
- NTP server: Displayed as active (✓) if there is a connection to a time server that automatically sets the time in the device.

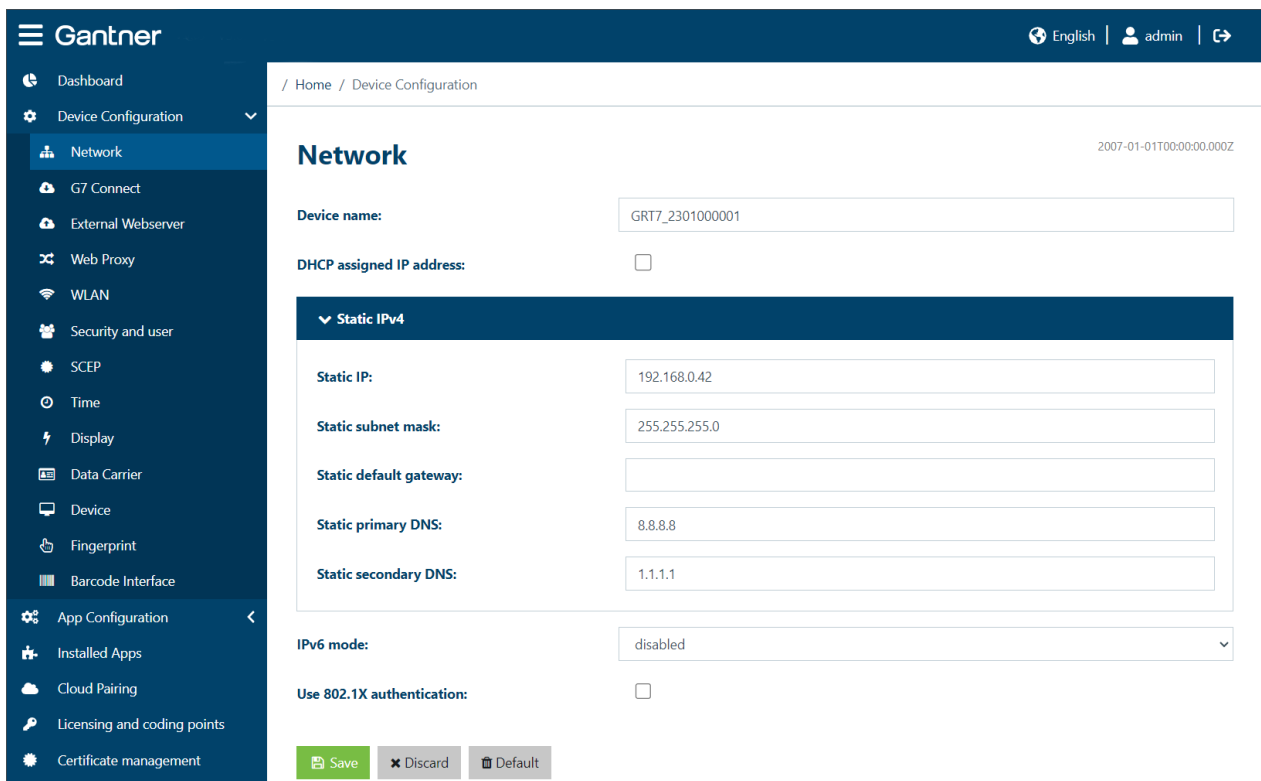
Locate device: Click this button to activate sound signals for the time defined in the drop-down menu. This function allows you to identify the terminal who you are currently connected with. Depending on the terminal the signal LED may also be lit up. If you press this button without selecting a time, only a short sound signal is generated. Note that for some devices like the G7 Return this button may have no function.

5.4.2. Network



NOTE

Please also consult with your system administrator for assistance with configuring these settings.



The screenshot shows the Gantner web interface for device configuration. The left sidebar contains a menu with options like Dashboard, Device Configuration, Network, G7 Connect, External Webserver, Web Proxy, WLAN, Security and user, SCEP, Time, Display, Data Carrier, Device, Fingerprint, Barcode Interface, App Configuration, Installed Apps, Cloud Pairing, Licensing and coding points, and Certificate management. The main content area is titled 'Network' and shows the following settings:

- Device name:** GRT7_2301000001
- DHCP assigned IP address:** ☐
- Static IPv4:**
 - Static IP:** 192.168.0.42
 - Static subnet mask:** 255.255.255.0
 - Static default gateway:**
 - Static primary DNS:** 8.8.8.8
 - Static secondary DNS:** 1.1.1.1
- IPv6 mode:** disabled
- Use 802.1X authentication:** ☐

At the bottom of the form are three buttons: Save, Discard, and Default.

The network settings for the connection to the GT7.3x27 are displayed and can be configured here.

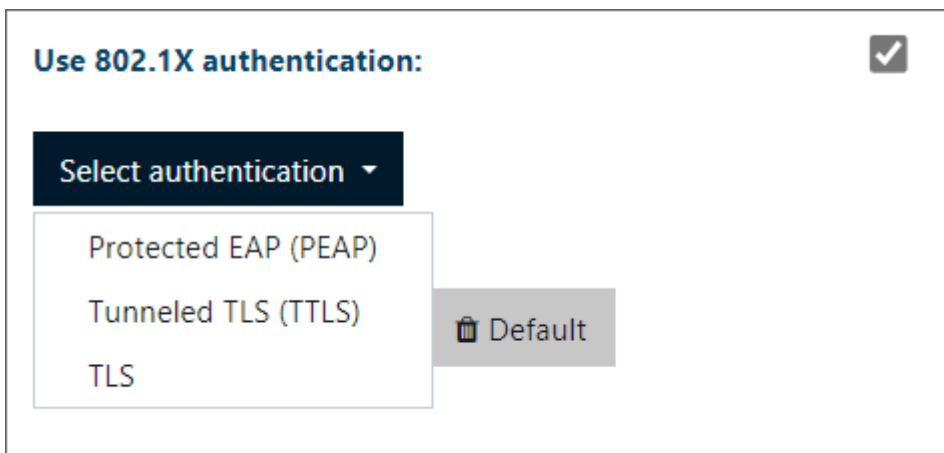
Device name: An arbitrary name can be entered for the GT7.3x27 here. When the network is scanned for devices, e.g., when adding a device to Relaxx, the device is shown with this name.

DHCP assigned IP address: When this option is enabled, the IP address of the GT7.3x27 is automatically assigned by a DHCP server. If you do not want to or cannot use a DHCP server, disable this option and enter the network settings into the **Static IPv4 configuration** section.

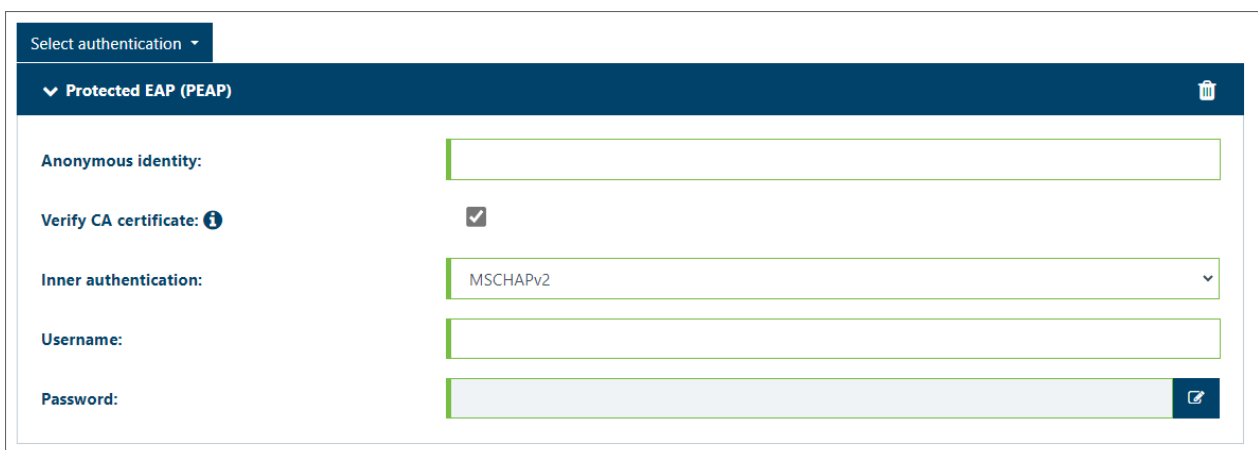
IPv6 mode: If your network supports using the IPv6 protocol for device addresses, you can select one of the following options to use the protocol.

- **DHCP assigned IP address:** When this option is enabled, the IP address of the GT7.3x27 is automatically assigned by a DHCP server. If you do not want to or cannot use a DHCP server, disable this option and enter the network settings into the **Static IPv4 configuration** section.
- **Static configuration:** Select this option and enter the network settings into the **Static IPv6** section to assign a static address to the device.
- **Stateless address autoconfiguration:** Stateless address autoconfiguration is the process that IPv6 nodes (hosts or routers) use to automatically configure IPv6 addresses for interfaces.

Use 802.1X authentication: Select this option to enable 802.1X authentication. 802.1x authentication is a security protocol that works with 802.11 wireless networks such as 802.11g and 802.11b and also with wired devices. From the **Select authentication** menu, select the type of authentication method and define the relevant settings.



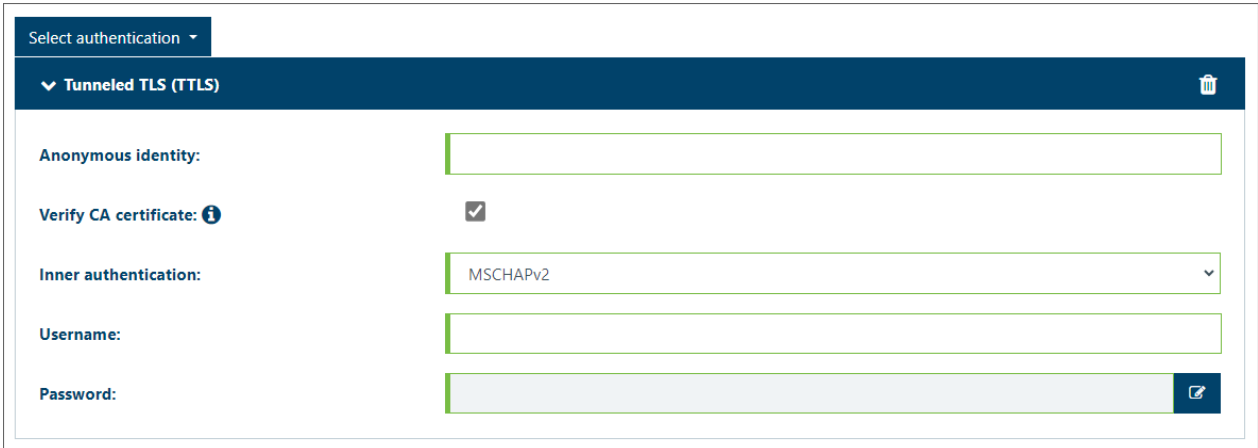
Protected EAP (PEAP): Protected Extensible Authentication Protocol (PEAP) is an 802.1X authentication method that uses server-side public key certificates to authenticate clients with servers. The PEAP authentication creates an encrypted SSL/TLS tunnel between the client and the authentication server. Define the following settings:



- **Anonymous identity:** An anonymous identity can be entered here for systems that support a separate authentication outside of a secure tunnel. If no anonymous identity is provided, the default is to use the **Username** for outer and inner authentication.

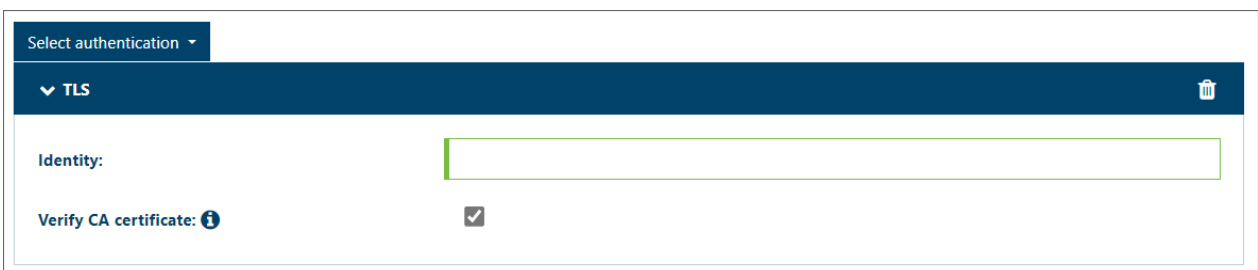
- **Verify CA certificate:** It is recommended to enable this option. Certificates are managed via the **Certificate management** page.
- **Inner authentication:** Select the type of protocol to use for inner authentication from the menu.
- **Username / Password:** Enter the username and password that will be used for authentication into the respective fields.

Tunneled TLS (TTLS): Tunneled Transport Layer Security (TTLS) is a variant of TLS. In contrast to this, TTLS allows authentication not only via certificates but also via all other EAP mechanisms such as MD5 and one-time password. Unlike TLS, TTLS requires only server-side certificates. Define the following settings:



- **Anonymous identity:** An anonymous identity can be entered here for systems that support a separate authentication outside of a secure tunnel. If no anonymous identity is provided, the default is to use the **Username** for outer and inner authentication.
- **Verify CA certificate:** It is recommended to enable this option. Certificates are managed via the **Certificate management** page.
- **Inner authentication:** Select the type of protocol to use for inner authentication from the menu.
- **Username / Password:** Enter the username and password that will be used for authentication into the respective fields.

TLS: Transport Layer Security (TLS) relies on client-side and server-side certificates to perform authentication and can be used to dynamically generate user-based and session-based WEP keys to secure communications between the WLAN client and the access point.



- **Identity:** Enter the value of the server identity field here.
- **Verify CA certificate:** It is recommended to enable this option. Certificates are managed via the **Certificate management** page.

5.4.3. G7 Connect

The screenshot shows the 'G7 Connect' configuration page in the Gantner IV interface. The left sidebar is expanded to 'Device Configuration' > 'Network' > 'G7 Connect'. The main content area has a title 'G7 Connect' and a timestamp '2007-01-01T00:00:00.000Z'. Below the title are four settings: 'Enable G7 Connect Configuration:' (checked), 'G7 Connect Address:' (text field with 'gantner.cloud'), 'Enable secure communication:' (checked), and 'Telemetry:' (checked). At the bottom are three buttons: 'Save' (green), 'Discard' (grey), and 'Default' (grey).

The settings for the device's connection to G7 Connect are configured here.

Enable G7 Connect Configuration: Enable this option if you want to use the configuration set via G7 Connect for the GT7.3x27.

G7 Connect Address: Enter the address of G7 Connect here (default = gantner.cloud).

Enable secure communication: Select this option to encrypt the communication using TLS.

Telemetry: Select this option if you want to send telemetry data to G7 Connect. This data does not contain any personal data (see the terms and conditions of G7 Connect for more information).

5.4.4. External web server

The screenshot shows the 'External Webserver' configuration page in the Gantner IV interface. The left sidebar is expanded to 'Device Configuration' > 'Network' > 'External Webserver'. The main content area has a title 'External Webserver' and a timestamp '2007-01-01T00:00:00.000Z'. Below the title are five settings: 'Enable external Webserver:' (checked), 'Server address:' (text field with a red border and error message 'Please enter a value!'), 'Enable secure communication:' (checked), 'Access token:' (text field), and 'Reconnection timeout:' (text field with '60' and a unit selector 's'). At the bottom are three buttons: 'Save' (green), 'Discard' (grey), and 'Default' (grey).

The GT7.3x27 can operate as a client or server. In the configuration described here, the device operates as a server, i.e., the PC establishes the connection to the device. If the device is to operate as a client, an external web server can be used. In this case, the communication will be carried out via this web server.

Enable external Webserver: Select this option if a web server is to be used for communication. After selection, the following settings are displayed.

Server address: IP address of the web server (IPv4 format).

Enable secure communication: When this option is enabled, TLS/SSL is used for the web socket connection.

Access token: An additional value for authentication, which is entered in the authorization field of the HTML header, can be specified in this field. The data that must be entered here depends on the implementation by the third-party software.

Reconnection timeout: In this field, enter the waiting time in seconds until reconnection is attempted after the connection between the GT7.3x27 and the management software has been interrupted.

5.4.5. Web proxy

A web proxy server can be configured in order to direct all outgoing connections via this web proxy server.

Enable web proxy: Select this option to use a web proxy server for communication. After selection, the following settings are displayed.

Server address: IP address of the web proxy server (IPv4 format).

Server port: Port of the web proxy server.

Username / Password: The username and password used to access the web proxy server.

Use for G7 Connect: Enable this option is you want to use the configured web proxy to connect to G7 Connect.

Use for external web server: Enable this option is you want to use the configured web proxy to connect to an external web server.

5.4.6. WLAN

A GT7.3x27 can also communicate using WLAN instead of via the LAN network. When WLAN is enabled, additional options are displayed.

Enable WLAN: With this option, WLAN can be activated or deactivated.

DHCP assigned IP address: Select the option to obtain an IP address automatically from a DHCP server. Alternatively, disable this option and enter the static IP address data into the **Static IPv4** configuration area.

SSID: Enter the name of the WLAN network here.

Authentication: Select **WPA PSK** here for the WLAN encryption method. You can then enter the PSK Key (password for the wireless network).

IPv6 mode: Here you can select whether to enable or disable the WLAN connection for IPv6 mode. If you enable WLAN, select one of the following options from the menu to define how the IPv6 addresses will be assigned.

- **DHCP assigned IP address:** The device address is automatically assigned by a DHCP server.
- **Static configuration:** Select this option and enter the network settings into the **Static IPv6** section to assign a static address to the device.
- **Stateless address autoconfiguration:** Stateless address autoconfiguration is the process that IPv6 nodes (hosts or routers) use to automatically configure IPv6 addresses for interfaces.

Standard gateway selection: Select the type of connection (LAN Ethernet or WLAN) to use for communication from the menu. When selecting **Ethernet** or **WLAN**, only the selected connection type will be used with preference.

Preferred frequency: Select the desired frequency for WLAN communication (2.4 or 5 GHz).

5.4.7. Security and user

Here you can define the users who are allowed to access the GT7.3x27 via its web interface (**Administrator user (Webinterface)**) and the G7 WebSocket API (**Management software login (G7 Websocket API)**). The **Management Software Access (G7 Websocket API)** user is used, e.g., by the Relaxx management software.

Disable plain http and plain WebSockets: Enable this option to prevent the GT7.3x27 from communicating using an unencrypted connection (e.g., HTTP instead of HTTPS).

Activate account: With this option, you can activate the respective user. If the option is disabled, the user has no access rights.

Username: The name of the user is displayed here. This name cannot be changed.

Enable FTP access: Enable or disable the FTP server in the GT7.3x27 via this setting.

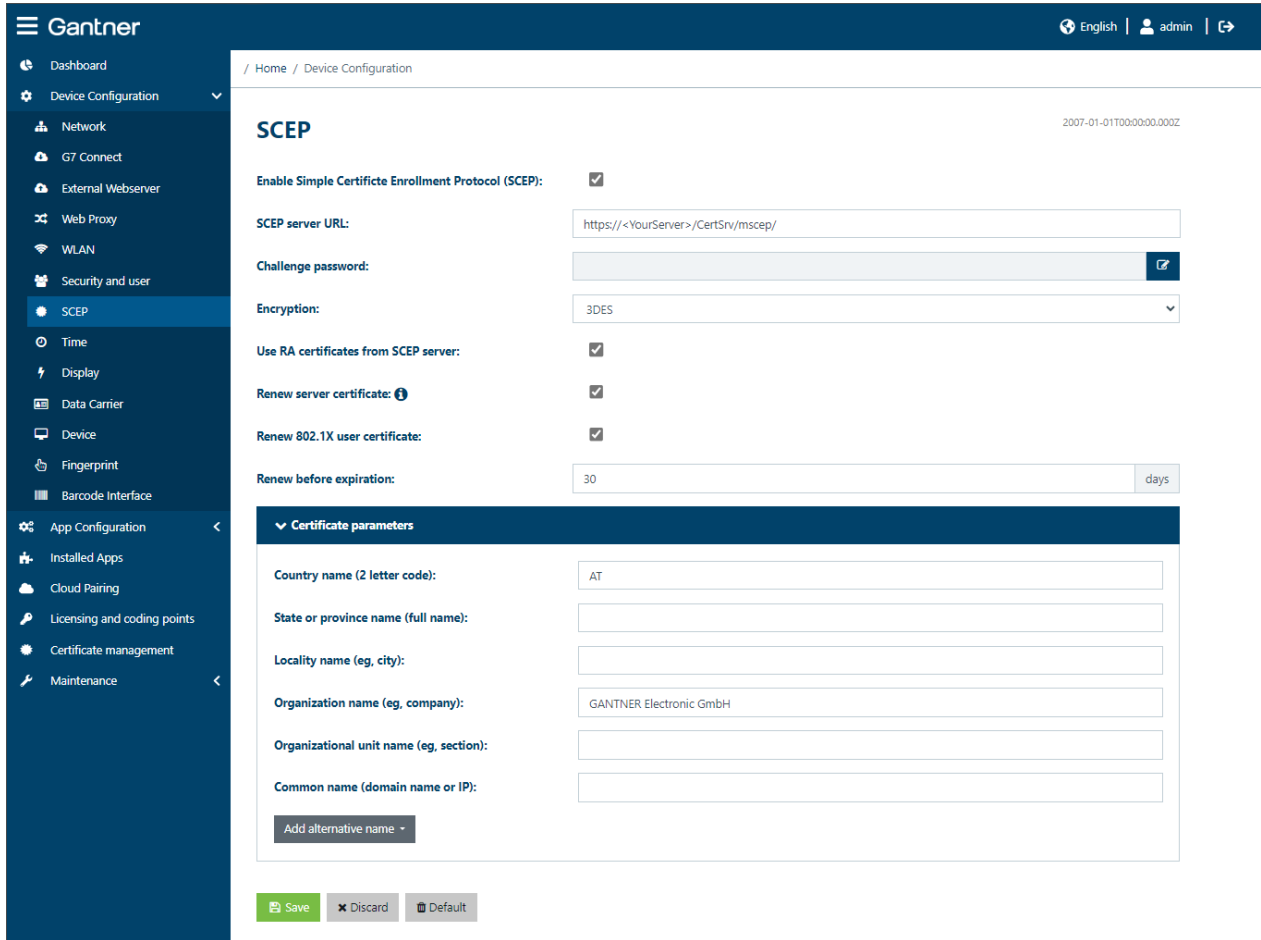
Password: Enter a password for the user. Click on the blue edit button to the right.



NOTE

If the default password is not changed for the **Management Software Access (G7 Websocket API)** user, the Relaxx software creates a new, secure password for communication. If the password is changed here, it must also be entered into the Relaxx software.

5.4.8. SCEP



SCEP (Simple Certificate Enrollment Protocol) is a protocol to quickly and simply request and issue digital certificates. The digital certificates are used for establishing a secure communication between the GT7.3x27 and a host computer or server.

Enable Simple Certificate Enrollment Protocol (SCEP): Enable this option to use SCEP. Additional settings are then displayed below.

SCEP server URL: The address (URL) of the server where the certificates are located.

Challenge password: The password that is used to access the SCEP server.

Encryption: Select the desired encryption type (AES or 3DES).

Use RA certificates from SCEP server: With this option the certificates from the RA (registration authority) can be used. The RA is responsible for accepting requests for digital certificates and authenticating the entity making the request.

Renew server certificate / Renew 802.1X user certificate: These options are used for the communication between the device web interface and the management software. If an option is enabled, the device will restart after installing or renewing the certificate on the server or the device.

Renew before expiration: The number of days entered here defines when the certificate will be renewed (x days before expiration).

Certificate parameters: Enter the data for the certificate into this area. The data must correspond to the parameters that were used to generate the certificate.

5.4.9. Time

Adjust these settings to define how to display and use the time in the GT7.3x27.

Time format: Select either 24-hour format (example: 15:48) or 12-hour format (example: 3:48 pm).

Date format:

- dd.MM.yyyy: The time is displayed in the international standard format, i.e., day.month.year (example for 15th September: 15.09.2020).
- MM/dd/yyyy: The time is displayed in US format, i.e., month.day.year (example for 15th September: 09/15/2020).
- Hide date: The date and time are not displayed.

NTP server address: An NTP server can be used to supply the time in a network to the users/devices. Enter the address of the NTP server here. If this field is empty, no NTP server will be used.

Time zone: Select the time zone that the GT7.3x27 is operating in.

5.4.10. Display

The screenshot shows the Gantner web interface for device configuration. The left sidebar contains a menu with various system settings. The 'Display' option is selected, leading to a configuration page. The page title is 'Display' and it shows a timestamp. The settings are as follows:

Setting	Value	Unit
Display Brightness:	70	%
Display Brightness (Screensaver):	20	%
Slideshow after:	3600	s
Next image after:	20	s
Screensaver after:	7200	s
Screensaver Text:	Gantner	

At the bottom of the settings area, there are three buttons: 'Save' (green), 'Discard' (grey), and 'Default' (grey).

These settings are relevant when the GT7.3x27 has a display or if an external display is connected to the device. The settings can be used to adjust the brightness of the display and to set the times when the display should switch to the screensaver or advertising display.

Display brightness: Intensity of the display backlight between 0 and 100%. At 0%, the display is switched off.

Display brightness (screensaver): Intensity of the display backlight when the screensaver is enabled (see screensaver settings).

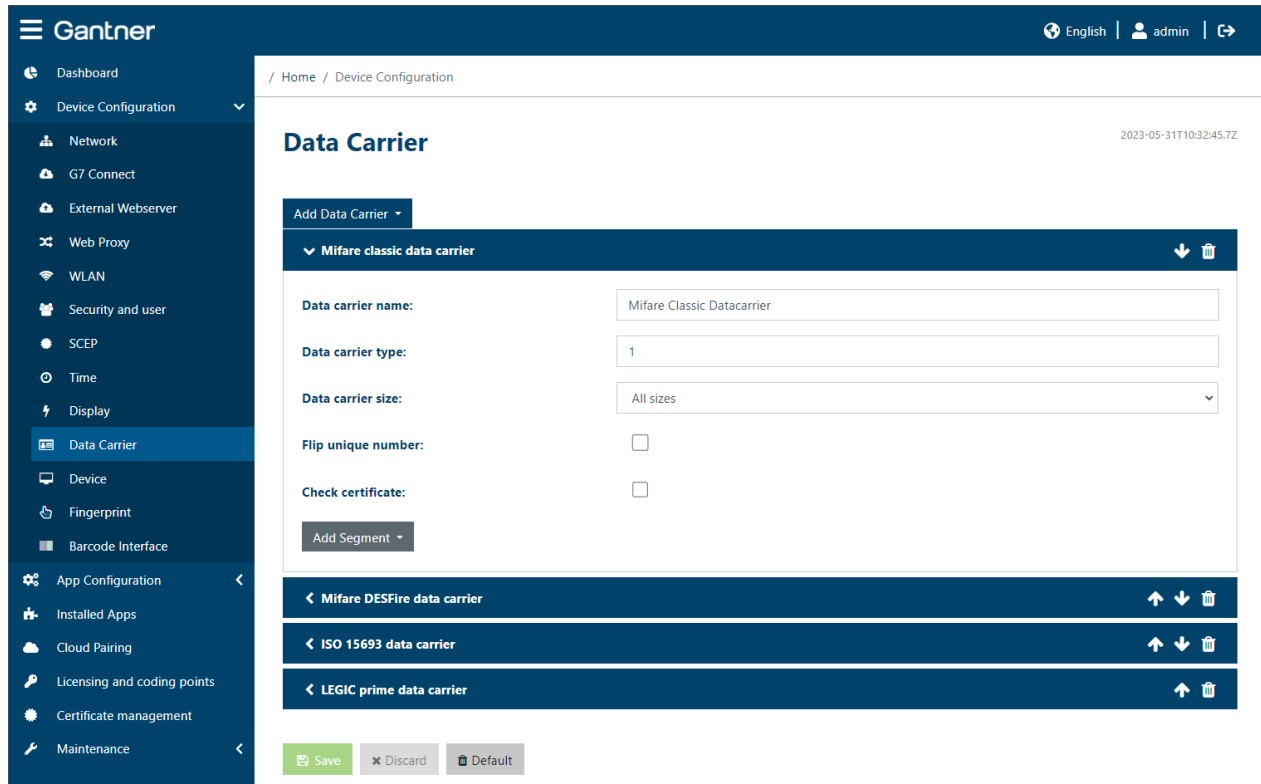
Slideshow after: Time (in seconds) of device inactivity after which an image slideshow (e.g., pictures from the theme) is displayed.

Next image after: Time (in seconds) after which the images in the slideshow are changed.

Screensaver after: Time after which the screensaver is displayed. This time starts to count down as soon as the slideshow is activated.

Screensaver text: Text that is displayed when the screensaver is active. If no images are selected for the slideshow, this text will also be displayed when the slideshow is activated.

5.4.11. Data carrier



The screenshot shows the Gantner web interface for configuring data carriers. The left sidebar contains a menu with options like Dashboard, Device Configuration, Network, G7 Connect, External Webserver, Web Proxy, WLAN, Security and user, SCEP, Time, Display, Data Carrier (selected), Device, Fingerprint, Barcode Interface, App Configuration, Installed Apps, Cloud Pairing, Licensing and coding points, Certificate management, and Maintenance. The main content area is titled 'Data Carrier' and shows a list of configured data carrier types: Mifare classic data carrier, Mifare DESFire data carrier, ISO 15693 data carrier, and LEGIC prime data carrier. Each entry has up, down, and delete icons. The 'Mifare classic data carrier' entry is expanded, showing fields for Data carrier name (Mifare Classic Datacarrier), Data carrier type (1), Data carrier size (All sizes), Flip unique number (checkbox), and Check certificate (checkbox). There is an 'Add Segment' button and an 'Add Data Carrier' dropdown at the top. At the bottom, there are 'Save', 'Discard', and 'Default' buttons.

The settings for the different types of data carrier technologies that will be used with the GT7.3x27 are configured here. These settings must be set correctly so that the data carriers can be used, i.e., read by the device.

Multiple data carrier types can be configured. The settings for each data carrier type differ depending on the type of technology being used.

Add data carrier: To configure a new data carrier type, click on this field and select the desired type from the list.

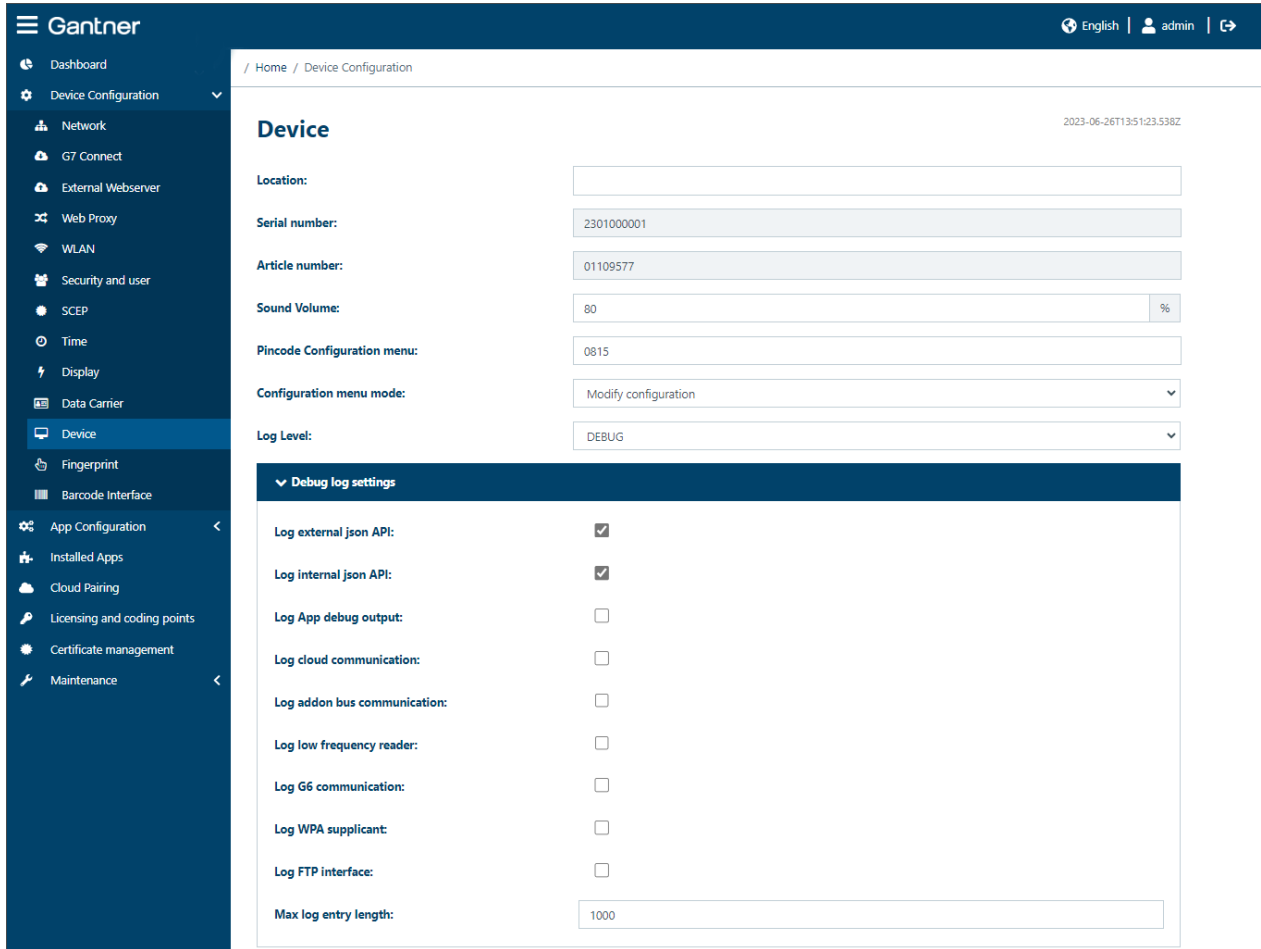
Delete data carrier: You can delete an existing data carrier type or a segment in the data carrier via the trash can icons on the right.



NOTE

Please speak to your Gantner representative if you have any questions regarding the settings.

5.4.12. Device



The screenshot shows the Gantner Device Configuration web interface. The sidebar on the left contains navigation links: Dashboard, Device Configuration (selected), Network, G7 Connect, External Webserver, Web Proxy, WLAN, Security and user, SCEP, Time, Display, Data Carrier, Device (selected), Fingerprint, Barcode Interface, App Configuration, Installed Apps, Cloud Pairing, Licensing and coding points, Certificate management, and Maintenance. The main content area is titled 'Device' and displays the following settings:

- Location:** A text input field.
- Serial number:** A text input field containing '2301000001'.
- Article number:** A text input field containing '01109577'.
- Sound Volume:** A slider control set to 80%.
- Pincode Configuration menu:** A text input field containing '0815'.
- Configuration menu mode:** A dropdown menu set to 'Modify configuration'.
- Log Level:** A dropdown menu set to 'DEBUG'.

Below these settings is a 'Debug log settings' section with the following options:

- Log external json API:** ☒
- Log internal json API:** ☒
- Log App debug output:** ☐
- Log cloud communication:** ☐
- Log add-on bus communication:** ☐
- Log low frequency reader:** ☐
- Log G6 communication:** ☐
- Log WPA supplicant:** ☐
- Log FTP interface:** ☐
- Max log entry length:** A text input field containing '1000'.

Here you will find the basic device settings, which include:

Location: The location of the device can be entered here. This name is displayed to help you to distinguish between multiple devices.



NOTE

Some special characters are not allowed. A message is displayed if an unusable special character is entered.

Serial number / Article number: The serial number and article number of the GT7.3x27 are displayed here.

Sound volume: Adjusts the volume of the device speaker from 0 to 100%. Entering 0% mutes the sound.

PIN code configuration menu: This code is used to access the configuration menu on the display of the device. The code can be entered after writing an **M** on the display with your finger.

Configuration menu mode: The GT7.3x27 has an integrated configuration menu that allows certain settings to be adjusted on-site. The menu is accessed via the PIN code as defined in the **PIN code configuration menu** setting.

- **Modify configuration:** The configuration menu can be accessed and the settings can be viewed and edited.

- **Show configuration:** The configuration menu can be accessed and the settings can be viewed only.
- **Configuration menu disabled:** The configuration menu cannot be accessed.

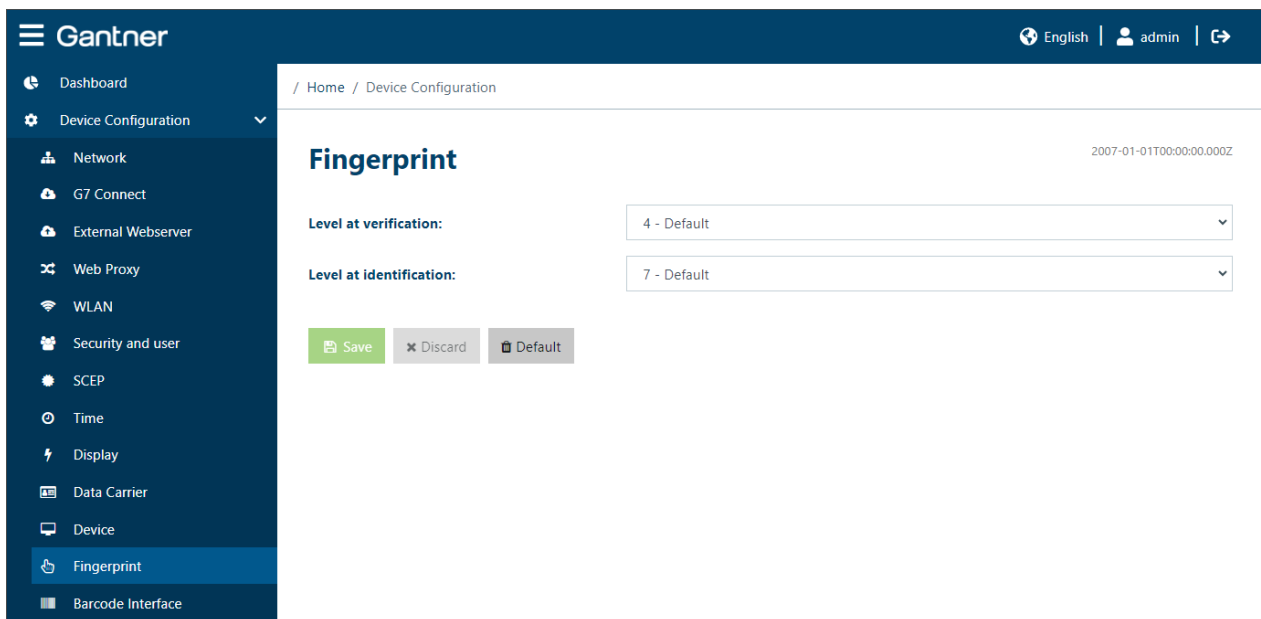
Log level: Here you can define which types of events should be recorded by the device. This log can be downloaded and read via the **Log Viewer** page. Different messages are logged depending on the setting configured here:

- **Error:** All errors are displayed. This includes, e.g., connection errors to G7 Connect.
- **Warning:** Warning messages are displayed. This includes, e.g., logins in the web interface.
- **Info:** Information messages are displayed, e.g., when a data carrier is within the reading field and when it has been read.
- **Debug:** Detailed debug messages are displayed for service purposes.

Debug log settings: Select here which messages are to be saved in the log file. There are also two more settings in this area:

- **Max log entry length:** This is the number of debug log entries, that are stored by the device. Standard = 500.
- **Debug log duration:** This is the time periode that debug log entries are saved. You can select from 4 hours, one day (24 hours) and one week (7 days)

5.4.13. Fingerprint



These settings are relevant when a fingerprint reader is being used with the GT7.3x27.

Level at verification: This value determines the accuracy of the fingerprint reader for verification, i.e., when the fingerprint is used as an additional confirmation after identification via data carrier. 1 = lowest level, 10 = highest level.



NOTE

Certain people (e.g., tradespeople who work with their hands) may have weaker fingerprints than others. If many users have difficulty reading their fingerprint, it may be helpful to lower the verification level.

Level at identification: This value determines the accuracy of the fingerprint reader for when the fingerprint is used as the primary means of identification for the user. The settings are similar to the **Level at verification** setting.



NOTE

This feature is only supported with certain apps.

5.4.14. Barcode interface

These settings are relevant when a barcode reader is being used with the GT7.3x27.

Reader mode: Select the type of reader or interface from the menu.

- **Default:** General/undefined barcode reader.
- **ATR110/ATR200 – Signals reader controlled:** For the ATR 110 and ATR 200 barcode readers from Gantner. With this setting, the signaling on the barcode reader is automatically set as soon as a barcode is read.
- **ATR110/ATR200 – Signals host controlled:** For the ATR 110 and ATR 200 barcode readers from Gantner. With this setting, the signaling on the barcode reader is not set until the approval or rejection is made by the management software.
- **GBS7.1xxx – Signals reader controlled:** For the GBS7.1xxx barcode readers from Gantner. With this setting, the signaling on the barcode reader is automatically set as soon as a barcode is read.
- **GBS7.1xxx – Signals host controlled:** For the GBS7.1xxx barcode readers from Gantner. With this setting, the signaling on the barcode reader is not set until the approval or rejection is made by the management software.
- **GBS7.1xxx - Signals host controlled, USB:** For the GBS7.1xxx barcode readers from Gantner, which are connected via USB. With this setting the signaling on the barcode reader is not set until the approval or rejection is made by the management software.

Baud rate: The transmission rate of the barcode reader.

Reader watchdog: If an ATR 110 or ATR 200 reader is used, a relay output of the device can be used to interrupt or restore the power supply to the barcode reader. To do this, enable the **Relay** option and enter the desired relay number. The option **Internal 5V switch** can be activated to switch the supply of the barcode reader.

Enable beeper: If a barcode reader of type GBS7.1xxx with signals host controlled is used, the beeper of the barcode reader can be activated or deactivated.

5.4.15. Camera



NOTE

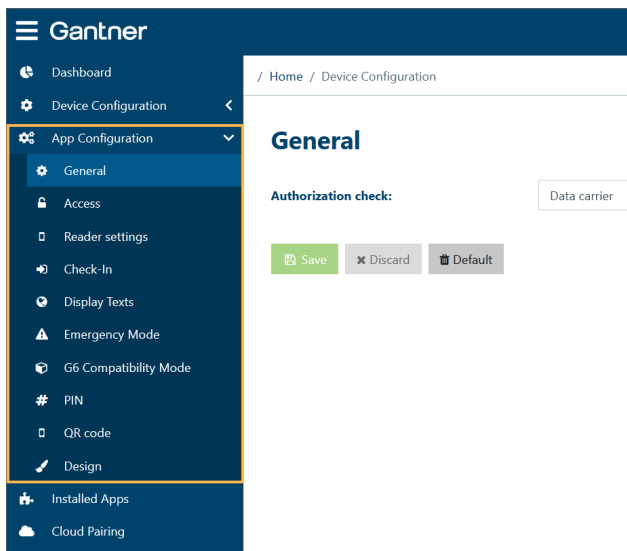
- This configuration page is only displayed for terminals that have the optional camera is installed.
- Ensure that the relevant data protection regulations are adhered to when operating the camera.

Enable integrated camera: Enable this option to turn the camera on (disabled by default).

Resolution: Select the desired camera resolution from the menu.

5.4.16. App configuration

The settings pages displayed in the **App Configuration** section of the web interface apply to the app currently running on the GT7.3x27. Only one app can be active at a time. If you want to run another installed app, the desired app can be started via the **Installed Apps** page of the web interface (see [Installed apps \[56\]](#)).



NOTE

As the settings pages displayed in the sidebar vary depending on which app is operating, these configuration settings are described in the corresponding user manual of the active app. Please refer to the manual of the respective app for more information.

5.4.17. Installed apps

Different apps can be installed on the GT7.3x27 with one app being operable at a time, i.e., not multiple apps simultaneously. License points are required to activate some apps, and these are available to purchase from Gantner.

When you order license points, the desired number of points are transferred to your organization in G7 Connect. You can then transfer the points in G7 Connect to the projects and respective devices as required.



NOTE

See the G7 Connect manual for detailed information on how to transfer license points in G7 Connect.

The following table lists all currently available G7 apps and the required license points.

Table 6. App functionality and required license points

App	Function	License Points
G7 Access App (default app)	For access control to an area separated by a door or turnstile, etc. Access is granted or denied after identification with the user's data carrier, fingerprint, or barcode.	0
G7 Advanced Access App	Enables the standard access app functions as well as other additional functions such as an authorization list, support for multiple GR7 readers per terminal/controller, and coding of MIFARE Classic data carriers.	30
G7 Customer Feedback App	Allows customers to complete a survey or enter feedback via the touchscreen. Feedback can be entered anonymously or personalized with the customer's data carrier.	0

App	Function	License Points
G7 Countdown App	Displays a configurable countdown timer (e.g., 5 mins) to show the user when the use of a time-limited device, such as a shower or power plate, will expire.	0
G7 Info App	For the display of customer information after their data carrier is read. The information displayed is configurable, e.g., the customer's locker number or the validation date.	20
G7 Time App	For the control of time-controlled devices, e.g., sunbeds. A timer is activated, and the device switches on for the set time after the customer's data carrier is read. The cost for use can also be displayed.	30
G7 Enrollment App	For the enrollment of fingerprint data to store a fingerprint template on the user's data carrier (used for fingerprint verification during identification processes).	40
G7 Time & Attendance App	Allows the flexible acquisition of personnel time and attendance information, and the display of employee time accounts after valid identification.	40
G7 Central Locker App	Allows the device to operate as the central reader and control device in a networked locker system.	50
G7 ECO Lockpal Registration App	This app can be used to authorize smartphones to use the ECO Lockpal app at a specific installation. With this app, users can use lockers that are locked with the Gantner battery locks. The app is authorized via a QR on the display.	40
G7 Room Sign & Access	This app is used to display room information (e.g. occupancy status, room number, persons). It can also be used to control alarm system operation and access.	0
G7 Main Controller App	This app is used to control Gantner electronic locker locks. The app is usually installed only on a GC7 controller.	0

There are also some extensions for the apps. The extension **G7 Open Card** can be used to disable certificate checking on the GT7.3x27 so that third-party data carriers can work with the device. G7 Open Card requires 10 license points and can be applied to apps with 0 license points.

On the **Installed Apps** page of the web interface, all installed apps are listed with the currently active app indicated by the green **Active App** text.

The screenshot shows the Gantner web interface for GT7.3500 - V3.0.12. The left sidebar contains navigation links: Dashboard, Device Configuration, App Configuration, Installed Apps (selected), Cloud Pairing, Licensing and coding points, Certificate management, and Maintenance. The main content area is titled 'Installed Apps' and shows 'Available Points: 99'. Below this is a search bar and a 'Drop App here' button. A list of installed apps is shown, each with a status indicator and a right arrow button. The 'G7 Advanced Access App' is highlighted with a green 'Active App' label and a timestamp '2023-08-07T13:42:49.747Z'. Other apps listed include G7 Access App, G7 Central Locker App, G7 Countdown App, G7 Enrollment App, G7 Main Controller App, G7 Room Sign & Access, and G7 ECO Lockpal Registration App.

1. To start another app, click on the **Activate** button for the desired app.

↳ The app starts, which can take up to a minute, and the GT7.3x27 operates according to the activated app. Only one app can be active at a time, i.e., before activating an app, the currently active app is automatically stopped.

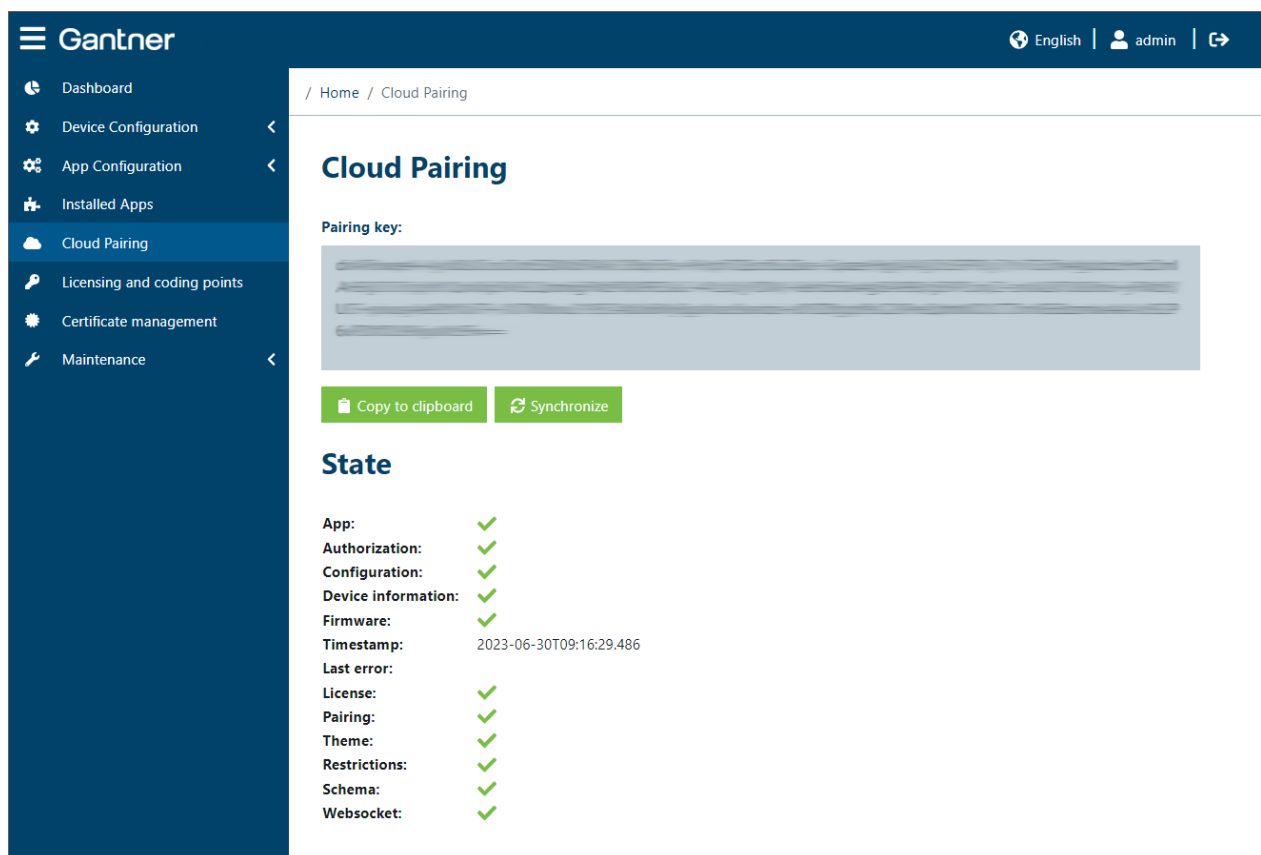
2. In the upper **Drop App here** field, additional apps can be loaded into the GT7.3x27. To do this, the app file is needed.
3. An app can also be assigned a theme (Design Template). To do this, drag a theme file (ZIP file) from Windows Explorer directly into the **Drop Theme here** box.



NOTE

A theme is a template file (ZIP file) that defines the format and appearance of the app on the display (e.g., text types, colors, positions, etc.). The formatting in a theme is done using CSS, which offers a lot of freedom in the design of the themes. In addition, a theme archive may contain images that can be viewed using the screensaver function. The images are located in the archive file of the screensaver sub-folder.

5.4.18. Cloud pairing



The screenshot shows the Gantner G7 Connect web interface. The sidebar on the left contains the following menu items: Dashboard, Device Configuration, App Configuration, Installed Apps, Cloud Pairing (highlighted), Licensing and coding points, Certificate management, and Maintenance. The main content area is titled 'Cloud Pairing' and includes a 'Pairing key:' section with a blurred key. Below this are two buttons: 'Copy to clipboard' and 'Synchronize'. A 'State' section lists various configuration items with green checkmarks indicating they are successful: App, Authorization, Configuration, Device information, Firmware, Timestamp (2023-06-30T09:16:29.486), Last error, License, Pairing, Theme, Restrictions, Schema, and Websocket.

G7 Connect is Gantner's online platform that allows you to configure and manage all your G7 devices in one convenient location.

To add a GT7.3x27 to a project in G7 Connect, the device must be paired with G7 Connect once. This process requires a pairing key, which is displayed on this page.

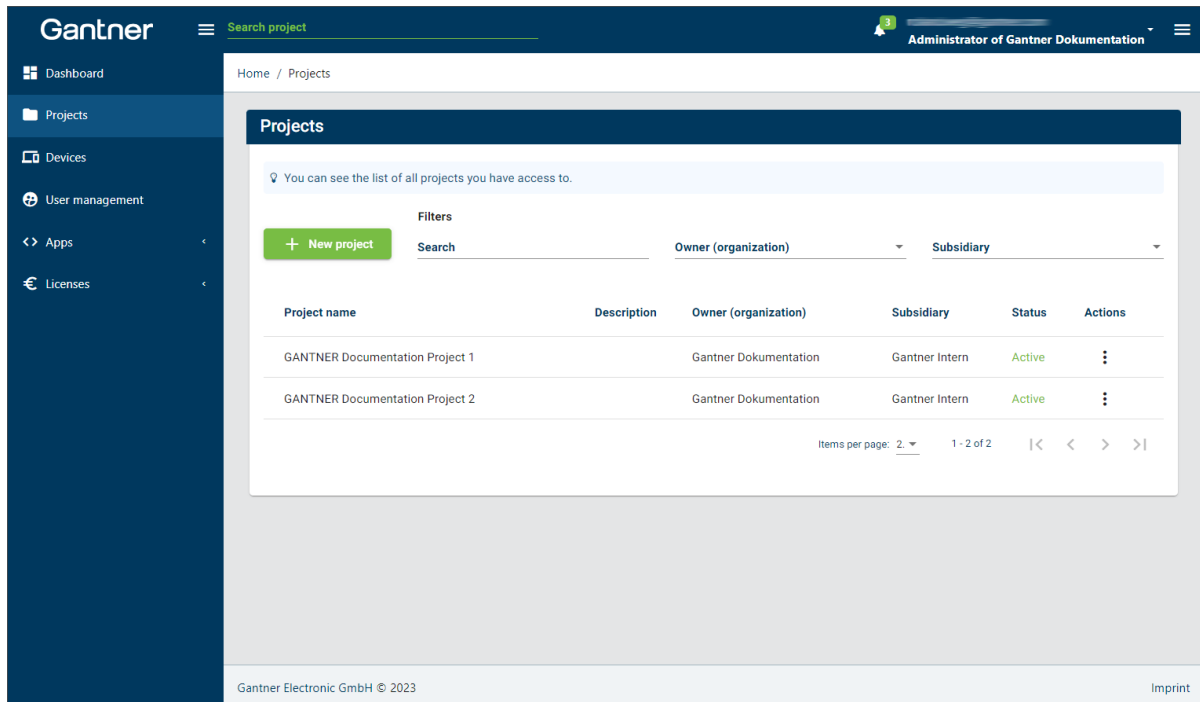
1. To open G7 Connect in your default web browser, click on the link: [G7 Connect](#), and log in with your username and password.



NOTE

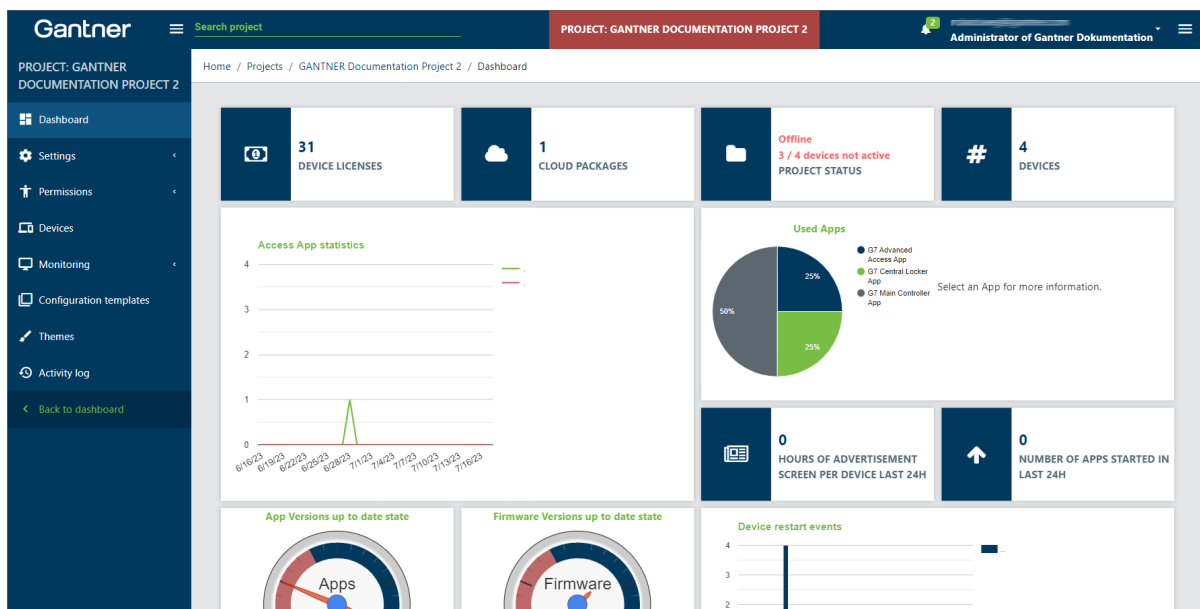
See the G7 Connect manual for information on creating an account.

- ↪ The G7 Connect dashboard is displayed.
- 2. Click on **Projects** in the sidebar.

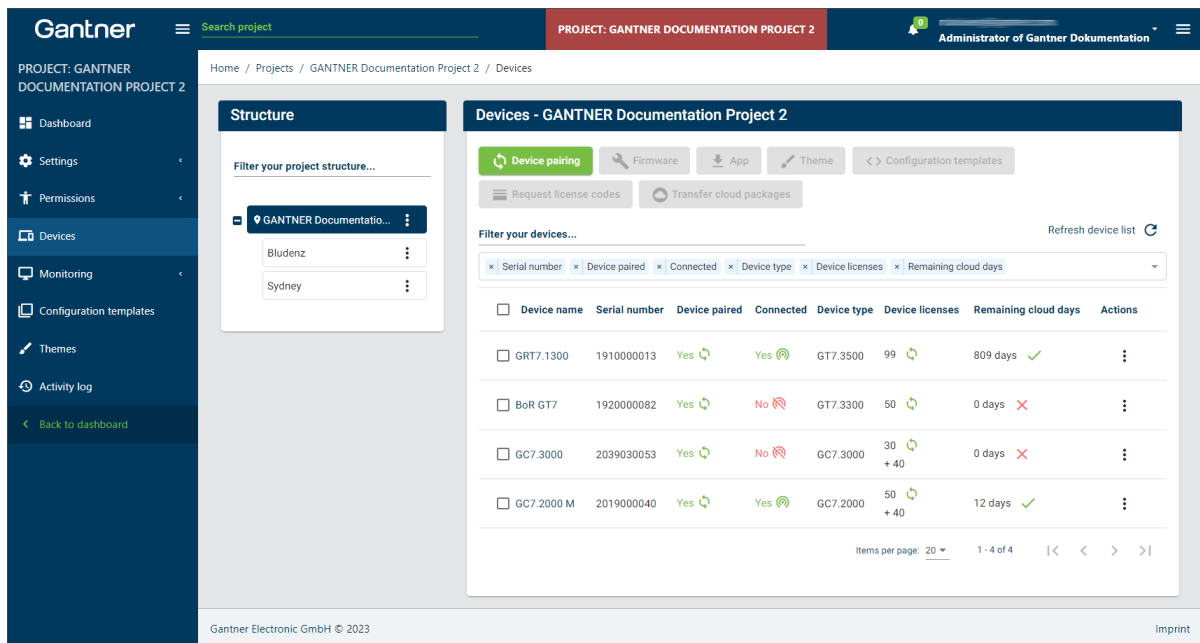


- 3. Click on the project that you want to assign the device to.

↪ The project dashboard is displayed. The selected project is displayed above the menu on the left.



- 4. Click on **Devices** in the sidebar.
- ↪ The devices already assigned to the project are displayed.



PROJECT: GANTNER DOCUMENTATION PROJECT 2

Home / Projects / GANTNER Documentation Project 2 / Devices

Structure

Filter your project structure...

- 9 GANTNER Documentatio...
- Bludenz
- Sydney

Devices - GANTNER Documentation Project 2

Device pairing Firmware App Theme Configuration templates

Request license codes Transfer cloud packages

Filter your devices... Refresh device list

Device name	Serial number	Device paired	Connected	Device type	Device licenses	Remaining cloud days	Actions
GRT7.1300	1910000013	Yes	Yes	GT7.3500	99	809 days	
BoR GT7	1920000082	Yes	No	GT7.3300	50	0 days	
GC7.3000	2039030053	Yes	No	GC7.3000	30 + 40	0 days	
GC7.2000 M	2019000040	Yes	Yes	GC7.2000	50 + 40	12 days	

Items per page: 20 1 - 4 of 4

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5. Click on the **Device pairing** button.

↪ The **Device pairing** window opens.

Device pairing

Please insert your pairing key in input below and click Pair device to perform pairing. If pairing is successful you will see your device in the list below.

Pairing key *

Field is required

Name *

Description

Pair device

6. On the **Cloud pairing** page of the the web interface, copy the **Pairing key**.

App Configuration
Installed Apps
Cloud Pairing
Licensing and coding points
Certificate management
Maintenance

Cloud Pairing

Pairing key:

Copy to clipboard

Synchronize

7. In the **Device pairing** window of G7 Connect, paste the **Pairing key** into the respective field. Enter a **name** for the device, which can be selected freely. You can also enter an optional descriptive text in the **Description** field.

Device pairing ✕

 Please insert your pairing key in input below and click Pair device to perform pairing. If pairing is successful you will see your device in the list below.

Pairing key *

Name *
 G7 Device

Description

 Pair device

8. Click on **Pair device**.

- The device attempts to establish an outgoing connection to G7 Connect via the Internet. The device must therefore be switched on and connected to the Internet (G7 Connect). Check the connections and firewall settings if pairing and synchronization does not work.
- When the device is found, it is displayed in the devices list of the project.
- In the web interface, the status of the pairing process is displayed. After pairing is completed, the different states are displayed to indicate whether an update is required.

 App Configuration <

 Installed Apps

 Cloud Pairing

 Licensing and coding points

 Certificate management

 Maintenance <

Cloud Pairing

Pairing key:

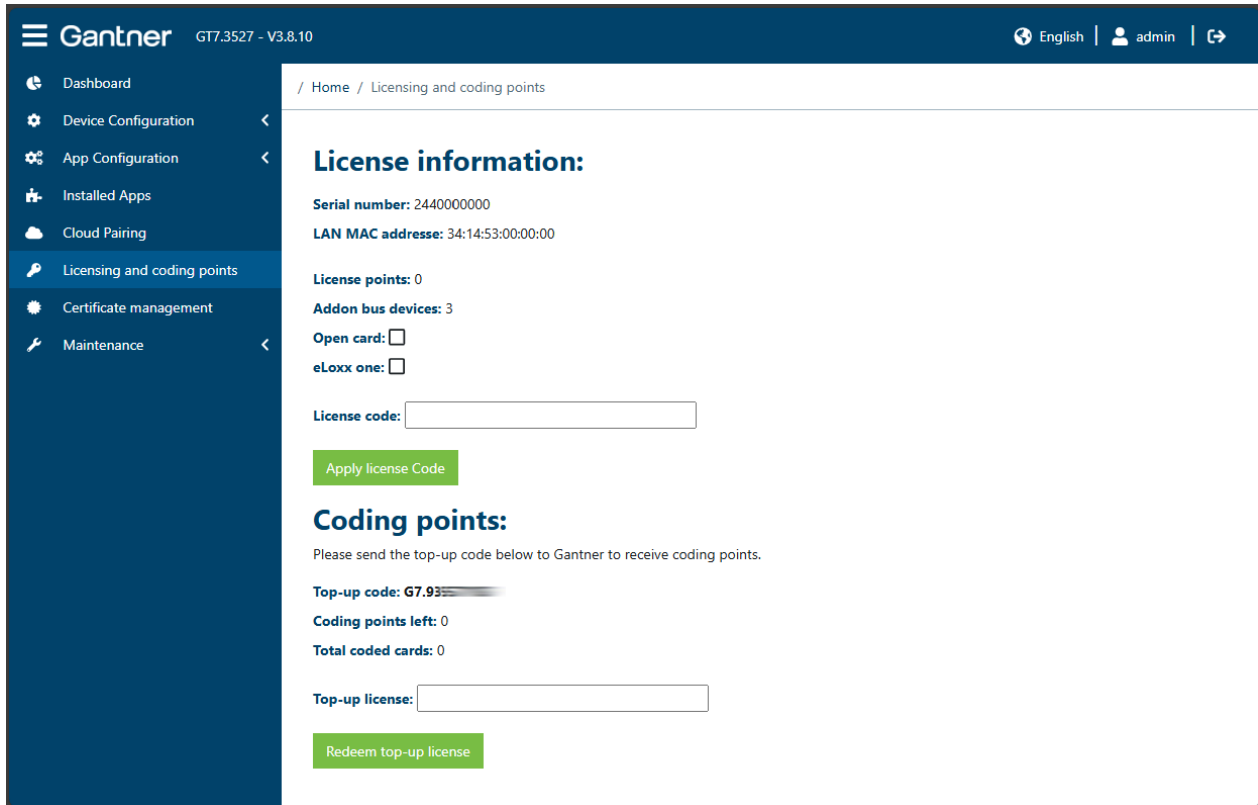
Copy to clipboard

Synchronize

State

App:	✓
Authorization:	✓
Configuration:	✓
Device information:	✓
Firmware:	✓
Timestamp:	2023-06-30T09:16:29.486
Last error:	
License:	✓
Pairing:	✓
Theme:	✓
Restrictions:	✓
Schema:	✓
Websocket:	✓

5.4.19. Licensing and coding points



The screenshot shows the Gantner web interface for the GT7.3527 - V3.8.10. The left sidebar contains navigation options: Dashboard, Device Configuration, App Configuration, Installed Apps, Cloud Pairing, Licensing and coding points (selected), Certificate management, and Maintenance. The main content area is titled 'License information:' and displays the following details:

- Serial number:** 2440000000
- LAN MAC address:** 34:14:53:00:00:00
- License points:** 0
- Addon bus devices:** 3
- Open card:** ☐
- eLoxx one:** ☐
- License code:**
- Apply license Code** (button)

Below this, the 'Coding points:' section includes instructions: 'Please send the top-up code below to Gantner to receive coding points.' It displays:

- Top-up code:** G7.93...
- Coding points left:** 0
- Total coded cards:** 0
- Top-up license:**
- Redeem top-up license** (button)

On this page, the network and license information for the GT7.3x27 are displayed and you can also add new license points here. The coding points that are used to encode data carriers using the corresponding G7 app can also be added.

License information

Serial number: The serial number of the GT7.3x27.

LAN MAC address: Unique, internal network address of the GT7.3x27.

License points: License points are required to activate certain G7 apps and enable other features. License points can be purchased from Gantner. The available license points are displayed here.

Addon bus devices: The maximum number of devices (controller and I/O extensions) that can be connected to the expansion bus of the device.

Open card: A tick in this field indicates that the **Open Card** license has been enabled and the certificate check is disabled, i.e., data carriers that were not coded by Gantner can also be used.

eLoxx one: This option is only relevant for the G7 Main Controller App. If the license for the eLoxx One software has been activated, this field is marked with a tick. eLoxx One can then be started via the Dashboard.

License code: Here you can enter a license code for the installation of additional apps or to activate additional functions can be entered here.



NOTE

License codes can also be conveniently managed in G7 Connect and allocated to the individual devices.

Coding points

Top-up code: You can use this code to request the desired number of coding points from Gantner Electronic GmbH.

Coding points left: Here you can see how many coding points are currently still available in the terminal. As soon as you add new coding points using a top-up license, the new coding points are added here.

Total coded cards: The number of data carriers already encoded is displayed here.

Top-up license: If you request coding points from Gantner using a top-up code, you will receive a license code that you enter here. You can activate the coding points by clicking on **Redeem top-up license**. These are then added to the **Coding points left** counter.

5.4.20. Certificate management

The screenshot shows the Gantner web interface for Certificate management. The left sidebar contains navigation options: Dashboard, Device Configuration, App Configuration, Installed Apps, Cloud Pairing, Licensing and coding points, Certificate management (selected), and Maintenance. The main content area is titled 'Certificate management:' and includes several action buttons: Show certificates, Add CA certificates, Generate new self-signed certificate, Generate CSR, Install server certificate, and Install 802.1X certificates. Below these buttons is a section for 'Simple Certificate Enrollment Protocol (SCEP)' which displays a table of certificates.

Subject	Issuer	Valid from	Valid to	Serial number	Type
Factory Default, GANTNER Electronic GmbH	Factory Default, GANTNER Electronic GmbH	2022-01-01 00:01:11Z	2051-12-25 00:01:11Z	67:ac:32:8b:d0:ed:10:b8:f1:93:a4:14:83:14:fa:48:88:8a:e2:40	Server
COMODO ECC Certification Authority, COMODO CA Limited	COMODO ECC Certification Authority, COMODO CA Limited	2008-03-06 00:00:00Z	2038-01-18 23:59:59Z	1f47:afaa:62:00:70:50:54:4c:01:9e:9b:63:99:2a	CA
Amazon Root CA 3, Amazon	Amazon Root CA 3, Amazon	2015-05-26 00:00:00Z	2040-05-26 00:00:00Z	06:6c:9fd5:74:97:36:66:3f:3b:0b:9a:d9:e8:9e:76:03:f2:4a	CA
DST Root CA X3, Digital Signature Trust Co.	DST Root CA X3, Digital Signature Trust Co.	2000-09-30 21:12:19Z	2021-09-30 14:01:15Z	44:afb0:80:d6:a3:27:ba:89:30:39:86:2e:f8:40:6b	CA
Amazon Root CA 4, Amazon	Amazon Root CA 4, Amazon	2015-05-26 00:00:00Z	2040-05-26 00:00:00Z	06:6c:9fd7:c1:bb:10:4c:29:43:e5:71:7b:7b:2cc8:1a:c1:0e	CA
ISRG Root X2, Internet Security Research Group	ISRG Root X2, Internet Security Research Group	2020-09-04 00:00:00Z	2040-09-17 16:00:00Z	41:d2:9d:d1:72:eae:ea7:80:c1:2c:6c:e9:2f:87:52	CA

The certificates stored in the GT7.3x27 are displayed on this page. The certificates are used to verify the authenticity and integrity of persons and/or objects, especially when communicating over the Internet or network, which can prevent unauthorized access and manipulation.

This screenshot shows the 'Add CA certificates' window within the Certificate management interface. It features a search bar with the text 'Drop certificate here (PEM or DER format)'. Below the search bar are two buttons: 'Add CA certificates' and 'Restore recommended CA certificates'. The window also includes a description: 'Add certificate authority (CA) certificate. Used for cloud applications.'

Various options are displayed above the list. Click on the **Show certificates** option to display the installed certificates. To add a new certificate, simply drag the certificate file (file extension .PEM) to the **Drop certificate here (PEM format)** field in the corresponding window (depending on the selected function, e.g. **Add CA certificates** like in the image above).

The following functions can be performed via the other options in this menu.

Add CA certificates: Add a certificate issued by a certification authority (CA). To do this, drag the file with the certificate (in PEM format) onto the one provided in this window and click **Add CA certificates**.

If you click on **Restore recommended CA certificates**, the certificates are reset to or restored to the default certificates installed when the device was delivered.

Generate new self-signed certificate: If encrypted communication between the device and the server is being used (via TLS over HTTPS or WSS), the device requires a certificate. It is recommended that you use a certificate issued by a certification authority. Alternatively, you can create a certificate yourself by clicking on **Generate new self-signed certificate**. The device must then be restarted.



NOTE

If a self-signed certificate already exists on the device, it will be replaced by the new certificate.

Generate CSR: To have a server certificate or an 802.1X user certificate created by a certification authority, you can create a Certificate Signing Request (CSR). Enter your data, e.g., company name, country, and IP, here.

Install server certificate: If the device is acting as a web server, which acts as a "client" and establishes the connection to the "server", a certificate is required on the server, i.e., on the GT7.3x27, for a secure connection using TLS.

You can create this certificate using CSR and then install it here. To do this, drag the certificate file onto the field provided and click on **Install server certificate**.

Install 802.1X certificates: Here, you can install an official certificate from a certification authority for authentication using 802.1X. To do this, drag the file with the certificate to the field provided and click **Install 802.1X certificates**.

Install 802.1X user certificate: Here, you can install a certificate previously created using CSR for authentication using 802.1X. To do this, drag the file with the certificate to the field provided and click on **Install 802.1X user certificate**.

Simple Certificate Enrollment Protocol (SCEP): Certificates using the Simple Certificate Enrollment Protocol (SCEP) can be installed here. The following window is displayed:

Certificate management:

Show certificates
Add CA certificates
Generate new self-signed certificate
Generate CSR
Install server certificate
Install 802.1X certificates

Simple Certificate Enrollment Protocol (SCEP)

Enroll, renew and install certificates with Simple Certificate Enrollment Protocol (SCEP).

 **Configure SCEP**
Server info: SSL handshake failed

Enroll or renew certificates

Install server certificate
Install 802.1X user certificate

Install provided RA and CA certificates

Install RA certificate
Install CA certificate
Install 802.1X CA certificate

Install RA certificate manual

 Drop certificate here (PEM or DER format)

Install SCEP encryption certificate
Install SCEP signature certificate

Create new private key

Subject	Issuer	Valid from	Valid to	Serial number	Type
Factory Default IP: 10.1.112.41	Factory Default GANTNER Electronic GmbH	2020-11-09 12:54:12Z	2050-11-02 12:54:12Z	30:b9:f8:f5:d2:19:e9:37:2b:d1:01:ad:c5:8f:00:e9:a6:36:d7:c1	Server  

Below the **Configuring SCEP** link, the status of the SCEP connection (“Server Info”) is displayed. If “Disabled” is shown here, the SCEP function is not activated. If the SCEP function is enabled, a server notification is displayed, e.g., “Enabled” indicates a successful connection or “Host not found” if the server connection could not be established.

1. To enable SCEP and configure the server connection, click on the **Configure SCEP** link.

↪ This takes you directly to the SCEP configuration page in the device configuration menu. See chapter “[SCEP \[48\]](#)” for more information. If SCEP is enabled and the connection to the SCEP server is active, you can perform the following actions:

2. **Install server certificate** If the GT7.3x27 is operated as a web server (e.g. when using the eLoxx Relaxx software, which acts as a “client” and establishes the connection to the “server” GT7.3x27, a certificate is required for the server, i.e. on the GT7.3x27, for a secure connection using TLS. You can complete the installation by clicking on this button.
3. **Install 802.1X user certificate** Here you can install a certificate for authentication via 802.1X.
4. **Install RA certificate** Here you can install a certificate issued by a registration authority (RA).
5. **Install CA certificate** Here you can install a certificate issued by a certification authority (CA).
6. **Install 802.1X CA certificate** This button allows you to install an official certificate from a certification authority for authentication using 802.1X.
7. The certificates (encryption and signature) for the registration authority (RA) can also be manually installed from a file without using the SCEP server. This can be done in the **Installing RA certificate manual** section.

Install RA certificate manual



Drop certificate here (PEM or DER format)

Install SCEP encryption certificate

Install SCEP signature certificate

Create new private key

Drag the file with the certificate into the dotted field and click on **Installing SCEP encryption certificate** or **Install SCEP signature certificate**.

5.4.21. Maintenance

The **Maintenance** menu gives access to different options for checking the status of the device and performing maintenance tasks like firmware update or evaluating recorded log entries. The maintenance menu options are usually not required during regular operation and are intended for service personnel.

Select the different sub menu items for more information on the available functions.

Device

Gantner
English | admin |

- Dashboard
- Device Configuration <
- App Configuration <
- Installed Apps
- Cloud Pairing
- Licensing and coding points
- Certificate management
- Maintenance ▾
 - Device
 - Update Firmware
 - Addon Bus
 - Log Viewer
 - Device State
 - Legal infos

/ Home / Device

Maintenance:

Reboot
Factory reset

Date and Time:

Device time: 2025-05-16 12:04:08

Cloud connected: ☐

NTP server: ☒

↑
↓

12

:
↑
↓

03

:
↑
↓

55

Set time with NTP
Set PC time
Set time

Load:

Average load:	12 %
CPU1:	10 %
CPU2:	13 %
Frequency:	144 MHz

Memory usage:

Total memory:	507332 kB
Free memory:	403152 kB
API server:	94362 kB
G6 server:	11825 kB
App:	62730 kB

Connection statistics:

12:00:00 PM → 12:04:04 PM	Last	Min	Max	Average	Count	Lost
Addonbus	19 ms	7 ms	41 ms	12 ms	122	0

The following settings and information are available on this page.

Maintenance

Reboot: Click on this button to restart the device. The web interface remains connected to the device and further work can be completed in the web interface after the restart is completed.

Factory reset: Click on this button to reset the device to its default settings.



NOTICE

All settings in the device are deleted during the reset process. After the reset, the device is in same functional state it was upon delivery.

Date and time

Device time: The current time in the device is displayed here. This time is updated every second. Go to **Device Configuration > Time** to configure the time settings.

Cloud connected: A tick in this checkbox indicates that the device is paired with G7 Connect. Go to **Device Configuration > G7 Connect** to configure these settings.

NTP server: A tick in this checkbox indicates that the device is using an NTP server to automatically synchronize the time. Go to **Device Configuration > Time** to configure the time settings.

- To reset the time in the device, select one of the following options:
 - **Set time with NTP:** The time is automatically obtained from an NTP server in the network. Go to **Device Configuration > Time** to define the address of the server.
 - **Set PC time:** The current time of the PC being used to configure the device is used.
 - **Set time:** You can manually enter a time and date into the input fields. After clicking on the **Set time** button, the entered values for the time and date are set in the device.

Memory usage / Load

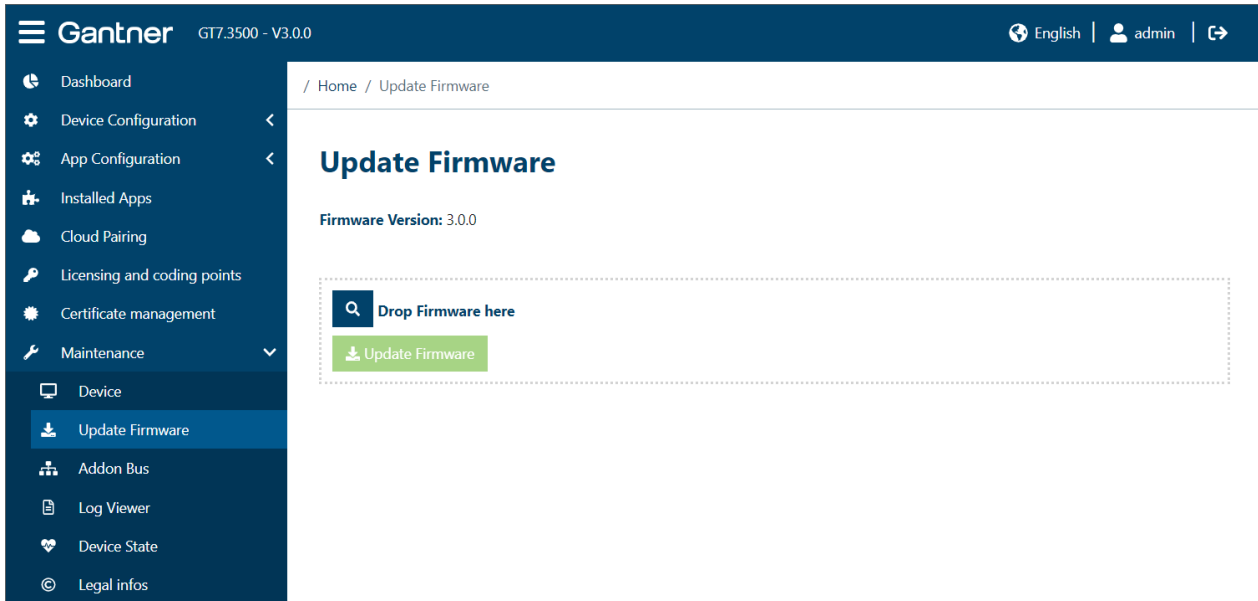
Information about the memory in the device, i.e., the total memory, free space, and memory used by each component, is shown here.

Shown in the load section is information on the current load and clock frequency of the CPUs. These values indicate how much the processor cores are being used and are mainly relevant for service personnel. If the average load is at a high value (>90%), an operation is using a lot of computing time and the device should be restarted.

Connection statistics

Displayed here are the connection statistics of the system components that interface with the GT7.3x27.

Update firmware



The firmware currently installed in the device is displayed here.

1. To update the firmware, drag the firmware file onto the **Drop firmware here** field.



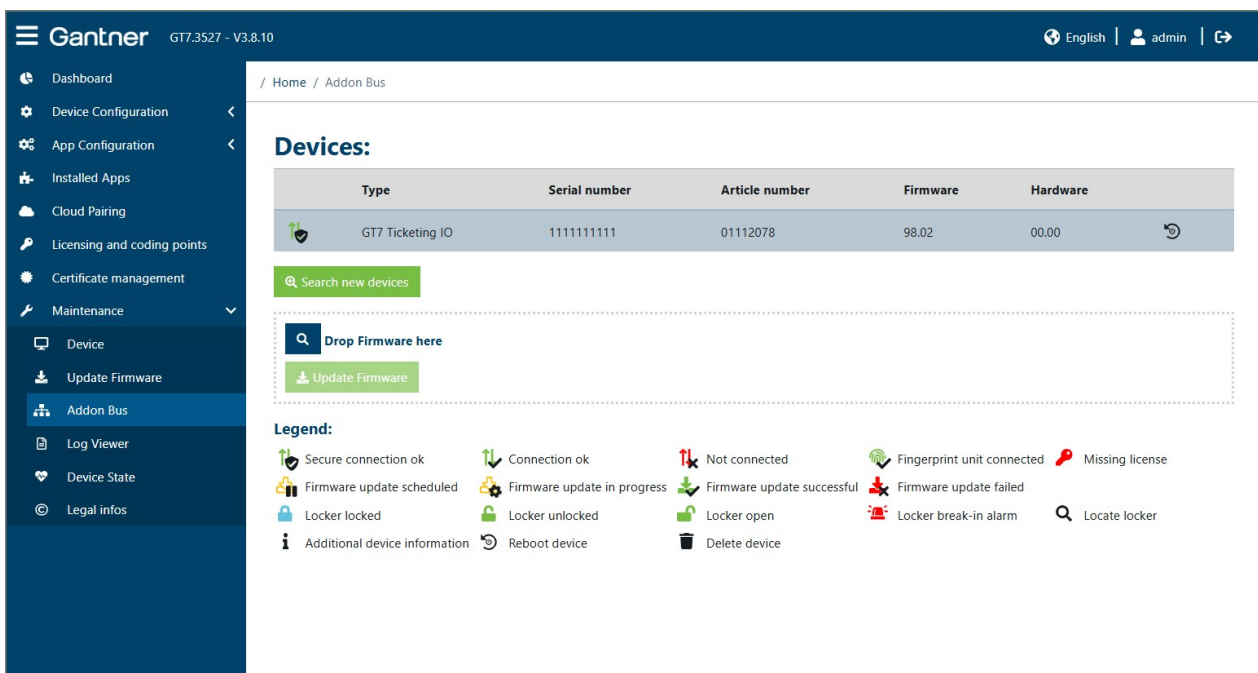
NOTICE

During the firmware update, ensure that the power supply to the device is not disconnected.

2. Click on **Update Firmware**.

The new firmware is uploaded and the device restarts.

Addon bus



Type	Serial number	Article number	Firmware	Hardware
GT7 Ticketing IO	1111111111	01112078	98.02	00.00

Legend:

- Secure connection ok
- Connection ok
- Not connected
- Fingerprint unit connected
- Missing license
- Firmware update scheduled
- Firmware update in progress
- Firmware update successful
- Firmware update failed
- Locker locked
- Locker unlocked
- Locker open
- Locker break-in alarm
- Locate locker
- Additional device information
- Reboot device
- Delete device

Information about the external devices connected to the GT7.3x27 via the expansion bus are displayed here.

1. If a new device such as a reader is connected to the GT7.3x27, it is not automatically displayed in the list. Click on **Search new devices** to search for and display all devices.
2. A reader that is no longer connected to the device can be deleted by clicking on the trash can icon.
3. You can change the numbering of a reader by clicking in the **Number** column.
4. To install a new firmware for these devices, drag the firmware file to the **Drop Firmware here** field, then click on **Update Firmware**.

↪ The new firmware is uploaded to all connected devices of the corresponding type and the devices are restarted.



NOTICE

During the firmware update, ensure that the power supply to the device is not disconnected.

Log viewer

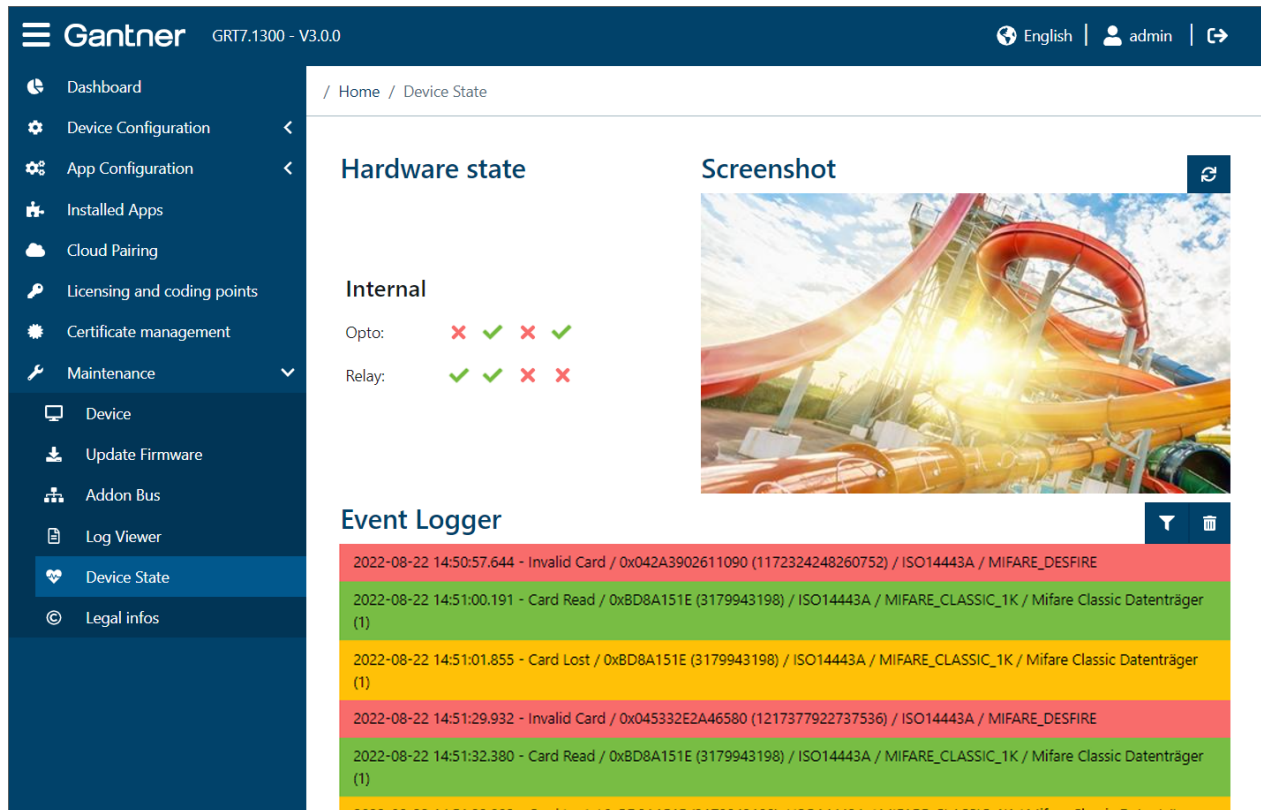
The screenshot shows the Gantner Log Viewer interface. The sidebar on the left contains navigation links: Dashboard, Device Configuration, App Configuration, Installed Apps, Cloud Pairing, Licensing and coding points, Certificate management, Maintenance, Device, Update Firmware, Addon Bus, Log Viewer (selected), Device State, and Legal info. The main content area is titled 'Log Viewer' and includes a search bar, a 'Download log files' button, and a 'Change device log level' link. Below these is a table of log entries with columns for Timestamp, Level, and Source. The table shows several log entries with timestamps from 2025.06.02 14:15:38.022 to 2025.06.02 14:15:39.788. A 'Clear list' button is located at the bottom of the table.

Timestamp	Level	Source
2025.06.02 14:15:38.022	INFO	EVENT IO.BarcodeRead 20000050
2025.06.02 14:15:38.026	INFO	EVENT IO.TagInReader UNKNOWN
2025.06.02 14:15:39.348	INFO	EVENT App.UnlockProcessResult
2025.06.02 14:15:39.787	INFO	EVENT App.NewBookingAvailable
2025.06.02 14:15:39.788	INFO	EVENT App.AppStateChanged

All events and error messages are stored in the GT7.3x27 as log files. The stored log files can be loaded from the device to the PC (file format = .csv). If the **Log Viewer** page is open, all currently occurring events are displayed live. If you close the **Log Viewer** page and then reopen it, the display of live events is restarted. However, the events are always recorded and can be downloaded at any time.

1. To load the log files from the device, click on **Download log files**.
↪ The log files from the previous 8 days are transferred to a compressed file (GZ) and automatically downloaded to the **Downloads** folder of your web browser.
2. Click on **Change device log level** to open the device settings. Here you can change the log level, which defines the types of events that are displayed in the live view (e.g., all info + warnings or only errors, etc.). For more information see "[Device configuration \[33\]](#)".
3. If you want to delete the displayed log entries to start a fresh session, click on **Clear list**.

Device state



Hardware state

Shown here is the state of the relay outputs and optocoupler inputs of the device, which can be used to receive status information and/or for control. A green tick indicates that the input/output is being used. The number of inputs and outputs available depends on the type of device (see technical data).

Screenshot

This image shows a screenshot of the currently displayed screen on the device display.

- To show the screen that is currently displayed on the device, click the refresh  button.
 - ↪ The refresh button turns green and the screen is automatically updated every second.
- When the live update shall be stopped, click again on the button.
 - ↪ The refresh button turns blue and the image shows the screen, that was displayed when the button was clicked. This image will not be updates until the refresh button is activated again.

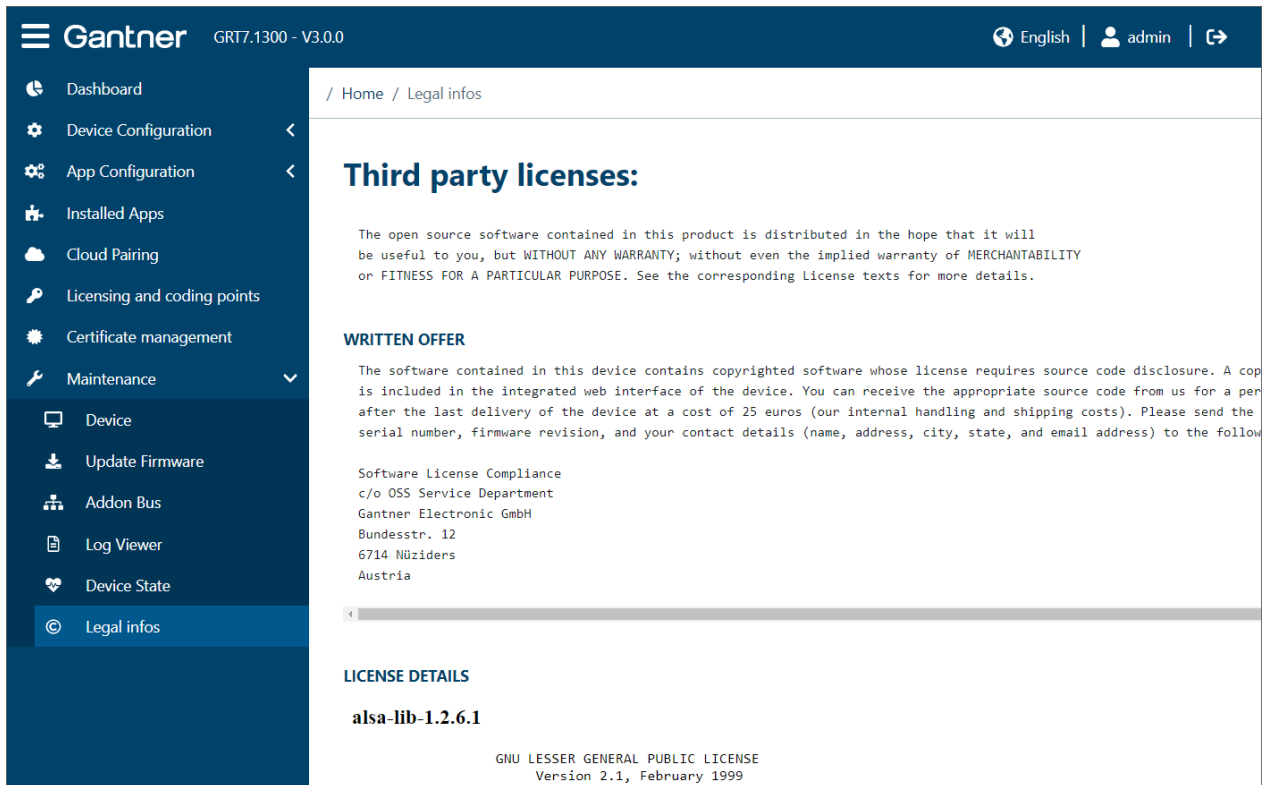
Event logger

When an event occurs at the device (e.g., data carrier read) or when the optocoupler input state or one of the relay states changes, a corresponding entry is displayed.

The live events occurring at the device are listed here. To clear the list, click on the trash can icon.

The filter icon displays all event types. By clicking on an event you can switch between active (green) and inactive (red). Only the active events are displayed in the list.

Legal information



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WRITTEN OFFER

The software contained in this device contains copyrighted software whose license requires source code disclosure. A copy is included in the integrated web interface of the device. You can receive the appropriate source code from us for a period after the last delivery of the device at a cost of 25 euros (our internal handling and shipping costs). Please send the serial number, firmware revision, and your contact details (name, address, city, state, and email address) to the following:

Software License Compliance
c/o OSS Service Department
Gantner Electronic GmbH
Bundesstr. 12
6714 Nüziders
Austria

LICENSE DETAILS

alsa-lib-1.2.6.1

GNU LESSER GENERAL PUBLIC LICENSE
Version 2.1, February 1999

Displayed here is the license information for the third-party software included with the GT7.3x27. For example, the GNU license information for the operating system in the device.

5.5. Configuration via G7 Connect



NOTE

For detailed information on the operation and how to start using G7 Connect, refer to the G7 Connect user manual. The manual is available to download from the Gantner website (login required).

G7 Connect is Gantner's web platform that provides a clear, user-friendly interface for managing projects that include Gantner's Generation 7 devices. You can access G7 Connect via any common web browser such as Chrome or Firefox. Users are required to log in with a username and password to begin using G7 Connect and after doing so, the various users and projects defined in G7 Connect can be viewed and configured.

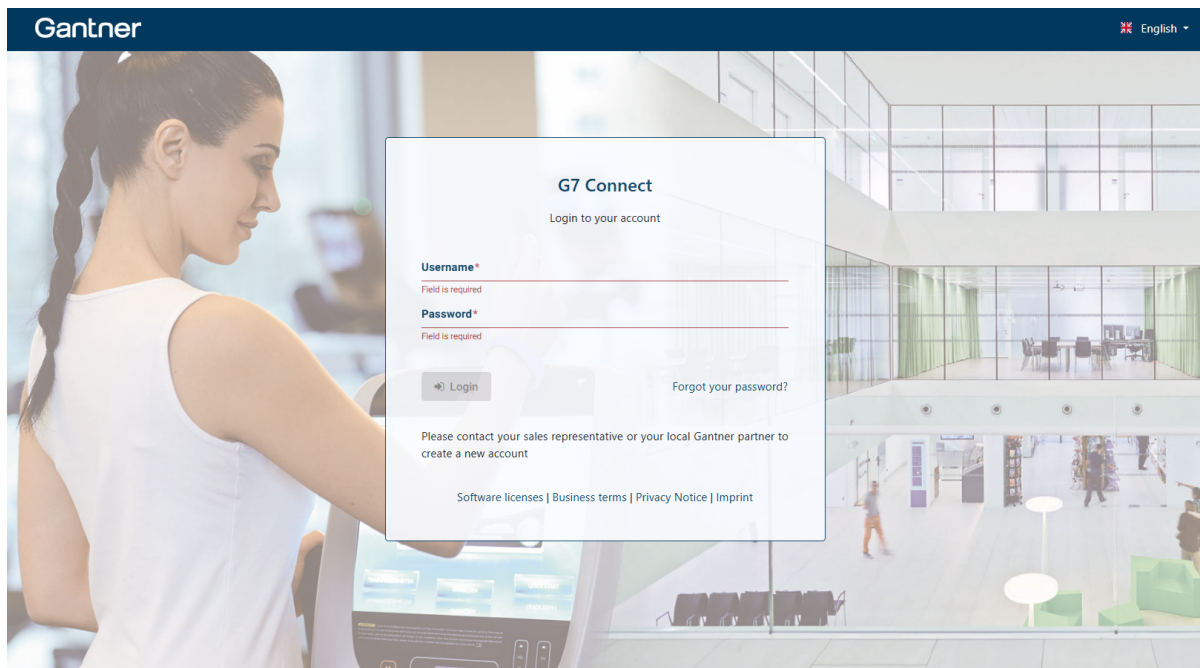
A detailed view is provided on the **Dashboard** page of each project that displays information on the device licenses, cloud packages, used apps, app versions, and statistics from the current app.

The configuration of the GT7.3x27 using G7 Connect is analogous to the direct configuration via web interface. To begin using G7 Connect, you must register with Gantner (if you are the first user within your organization) or be invited from a registered user from your organization.

After activating your account, you can log in to G7 Connect as follows:

1. Open a web browser and enter the following link: <https://gantner.cloud>

↪ The login window for G7 Connect is displayed.



2. Enter your username and password and then click on **Login**.

↪ Your personal dashboard is displayed.

6. USER OPERATION

Identification at the GT7.3x27 is achieved using 1D barcodes (e.g. EAN code), 2D barcodes (e.g. QR code printed on a mobile phone), or with contactless RFID data carriers. To use a terminal and gain access, the user must have a valid RFID data carrier, a valid barcode ticket or QR code. The data carrier must use the same RFID technology supported by the respective terminal and the barcode or QR code must comply with the technical specifications (refer to [Technical data \[80\]](#)).

Operation

In standard operating mode, the GT7.3x27 displays a message that invites the user to read their data carrier. The RFID scan field (LED ring) is blue and the controlled door or turnstile is locked.



NOTE

The display language and the texts used can be configured in the settings (go to **App Configuration > Display Texts** in the web interface). The color of the LED ring can also be defined on the **App Configuration > Design** page.

1. To gain access to a restricted area, hold your data carrier steadily in front of the illuminated LED ring (3). Do not remove the data carrier too early.



2. When a barcode or QR code is being used for identification, the barcode reader beneath the LED ring is used. An RFID data carrier is not required in this case.

Hold the barcode or QR code facing the barcode reader. The LEDs on either side of the reader will illuminate when the reader senses movement in front of it.



- ↪ If the identification media is valid, the terminal sends the data carrier information to the host for evaluation.
- ↪ When access to the restricted area is granted, the terminal activates the applicable relay and unlocks the door/turnstile for the configured time.
- ↪ A message is displayed on the screen to indicate whether access is granted or not.

- ↪ Additionally, the status LED and the LED ring illuminate green (access allowed) or red (access denied) with one (access allowed) or two (access denied) acoustic signals emitted. The color of the LED ring and status LED change accordingly to indicate different status and tariff information.
- ↪ If the data carrier is invalid, access is automatically denied without contacting the host.

7. MAINTENANCE



WARNING

Touching live parts can lead to serious injury or death from electrical shock

- Disconnect the power supply before working on the device or installation/deinstallation.
- Observe the applicable safety and accident prevention regulations.
- Observe the specified technical data and technical drawings of the device.
- Protective devices must not be removed.

The GT7.3x27 has two cooling fans that must be cleaned at regular intervals. The regular cleaning of the terminal is also recommended to maintain hygiene standards. Instructions for these tasks are provided in the following chapters.

Apart from these tasks, the GT7.3x27 does not require any other periodic maintenance for operation.

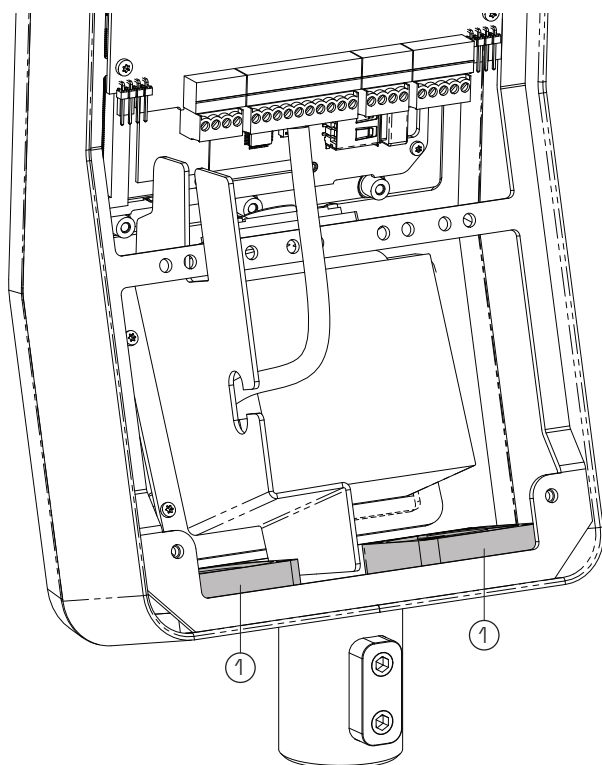
7.1. Target group

This chapter contains information for the service technicians and cleaning personnel responsible for maintaining and cleaning the GT7.3x27. Previous knowledge of Gantner devices is not required.

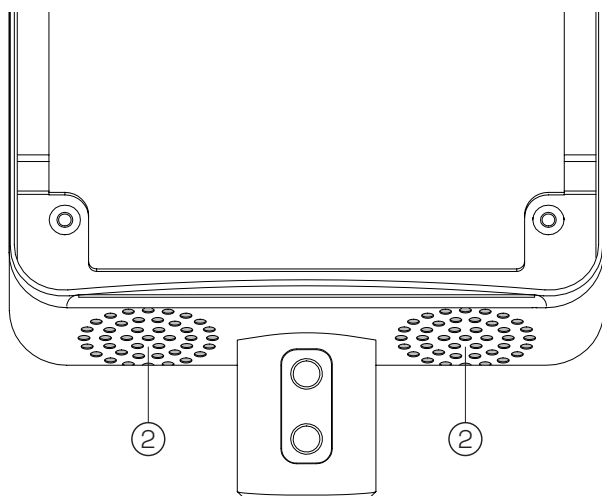
7.2. Fan cleaning

The GT7.3x27 has two fans with fan filters at the bottom of the housing to assist with cooling the terminal. To maintain reliable operation, the fan filters must be cleaned at regular intervals.

1. Remove the housing rear part (see [Opening / closing the housing \[17\]](#)).
2. Using a damp (not wet!) cloth, clean the top of the two fans (1) to remove any dust. A vacuum cleaner with a narrow attachment can also be used to carefully remove dust.



3. Clean underneath the fans (2) on the housing middle part.



NOTICE

Take care not to damage the internal electrical components during cleaning. Contact your local Gantner office if assistance from a service technician is required.

7.3. Cleaning



NOTICE

- Do not use cleaning benzine, diluents or any other strong detergents.
- Do not clean the components of the device with a high-pressure or steam cleaner. Doing so will damage the device.
- Water or other liquids must not penetrate the device housing.

The periodical cleaning of the GT7.3x27 is recommended and ensures that the device can perform its intended function properly.

Follow these steps to clean the GT7.3x27:

1. Wipe off any dirt and dust from the outside of the GT7.3x27 using a soft, lint-free and dry cloth.
2. For extreme dirt, the terminal can be cleaned using a slightly moistened cloth.

8. TECHNICAL DATA

Nominal voltage	Power supply: DC 24 V (LPS/SELV) PoE: conf. to IEEE 802.3af, performance class 0
Permitted input voltage	Power supply: DC 10 - 26 V (LPS/SELV) PoE: DC 36 - 57 V
Input current	Power supply: 900 mA PoE: 300 mA
Nominal power consumption	10 W
Output current	Vout 24 V: max. 300 mA Vout 5 V: max. 300 mA
Reader type	GT7.3527: ISO 14443 (MIFARE® Classic / Ultralight® / DESFire®) and ISO 15693 GT7.3727: LEGIC advant, Proxy (125 kHz) and HID iCLASS®
Reader frequency	RFID: 13.56 MHz Wireless interface: 2.4 GHz Proxy: 125 kHz (GT7.3727 only)
Max. transmission power	RFID: 500 mW Wireless interface: 3.7 dBm (2.344 mW) Proxy: 200 mW
Reading range	2 - 8 cm (depending on the data carrier)
Data storage	Flash memory for configuration and booking data, screensaver, and images.
Internal clock	Time retention without power = 1 hour
User guidance	4.3" color display with capacitive touchscreen, 16.7 million colors, resolution 480 x 272 px, visible area 95.04 x 53.86 mm Multi-color LED ring Acoustic signal
Host interfaces	Ethernet: 10/100 Mbps, IPv4 and IPv6 WLAN: IEEE 802.11b/g/n
Reader interfaces	RS-232 (barcode) RS-485 (Gantner expansion bus) Wiegand

Connection	Screw terminals, 0.5 - 1.5 mm
Software integration	JSON interface Generation 6 compatibility adapter (limited functions)
Signal inputs	1 x optocoupler input, potential-free, function configurable Input voltage: 0 to 30 V DC, $U_{Low} < 2 \text{ V DC}$, $U_{High} > 6 \text{ V DC}$ 2 x Wiegand inputs (DATA, CLK), with potential, function configurable Input voltage: open or GND (e.g., push button connected to GND)
Signal outputs	2 x relays Type: NO contact, function/timing configurable Switching voltage DC: max. 30 V (SELV) Switching voltage AC: max. 15 V (SELV) Continuous current: max. 1.8 A Switching capacity: max. 54 W, 27 VA
Housing material	Front/rear part: Plastic PC black gray Middle part: Stainless steel Display: Hardened glass
Weight	1.68 kg (3.7 lb)
Permitted ambient temperature	-25 to +50 °C (-13 to +122 °F)
Storage temperature:	-25 to +70 °C (-13 to +158 °F)
Protection type	IP44 (installed state)
Protection class	III (Safety Extra-Low Voltage)
Environment class (VdS 2110)	IV (outdoor conditions)
Certification	CE



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