

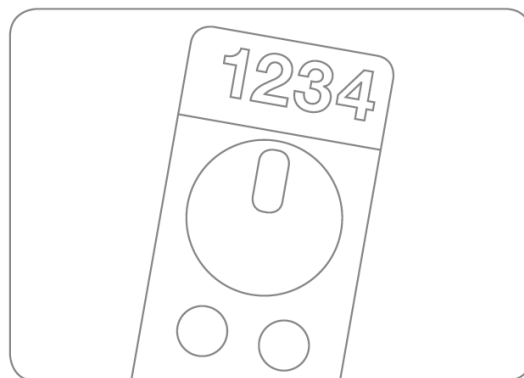
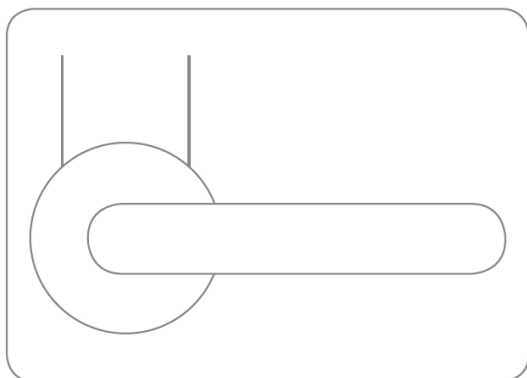
**Annex acc. to FCC Title 47 CFR Part 15  
relating to  
Schulte-Schlagbaum AG  
SOT-WG**

# **Annex no. 5 User Manual Functional Description**

**Title 47 - Telecommunication  
Part 15 - Radio Frequency Devices  
Subpart C – Intentional Radiators  
ANSI C63.4-2014  
ANSI C63.10-2013**



Deutsche  
Akkreditierungsstelle  
D-PL-12053-01-00



**SAFE-O-TRONIC<sup>®</sup> access**  
Door and Furniture Locking Systems

**SAFE-O-TRONIC<sup>®</sup> access**  
**SOT-WG gateway**

**Information about this guide**

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This edition renders invalid all previous editions.  
Information in this document can be changed without prior announcement.

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## Safety instructions and warnings

- The device may only be used for the purpose intended by the manufacturer.
- This guide must be kept in an easily accessible location.
- Unauthorised modifications and the use of spare parts and auxiliary devices that are not sold or recommended by the manufacturer may result in fire, electric shock and injury. Actions such as these result in exclusion of liability, and no warranty claims will be accepted by the manufacturer.
- Repairs may only be carried out by the manufacturer.
- The warranty provisions of the manufacturer as amended on the date of purchase apply to the device. Liability will not be assumed for inappropriate manual and automatic creation of parameters for a device or inappropriate use of a device.
- The operating company is responsible for setting up and connecting the device according to recognised technical regulations in the country of installation and other valid provisions.
- Connection, commissioning, maintenance and other activities on the device may only be carried out by qualified and skilled electricians.
- Special note for persons with pacemakers:  
Although this device does not exceed the limit values for electromagnetic fields you should keep a minimum distance of 25 cm between the device and your pacemaker and not spend longer periods in the immediate vicinity of the device, e.g. the antenna.

## Description

The SOT-WG gateway is a system component of the SAFE-O-TRONIC® access locking system and can be integrated online in TCP/IP networks via an Ethernet interface.

As a result of its Ethernet interface (10BASE-T / 100BASE-TX), CyberNet Reader can easily be integrated in network environments with CAT 5 cables. Power is supplied via a 24V/0.75A DC external power supply unit.

The sections below describe various connection options and the different power supply options.

*Note:*

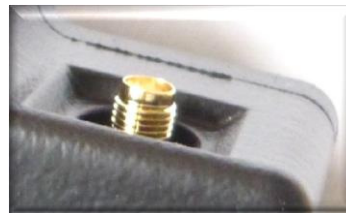
The SOT-WG gateway may only be operated using the plug-in power supply #300850203 (24V/0.75A).

Refer to the "Plug-in power supply" section for more details.



*Note:*

The gateway may only be operated with the supplied SMA antenna #38450813.



### Scope of delivery of gateway, # 300850201

- 1 x SOT-WG gateway
- 1 x Antenna with SMA connector, 2.4 GHz
- 1 x Mounting plate for wall mounting with latching function

### Optional accessories

Plug-in power supply 24V/0.75A, # 300850203

## Installation

The SOT-WG gateway is intended for on-wall mounting.

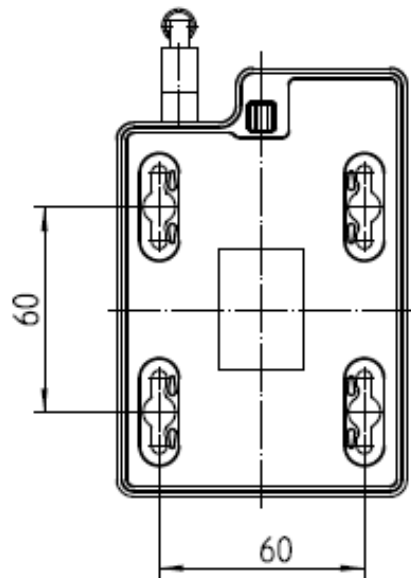
### 1. Selecting the installation location

- The gateway should be installed on a surface that is as even and dry as possible.
- The distance to the SAFE-O-TRONIC access LSW furniture locking systems with wireless adapter should be as short as possible.
- The connecting cables must be protected against tensile loads.
- The antenna must be oriented in such a way that maximum radiation is guaranteed.

### 2. Connection

- The sections on the topology contain greater details on the various installation options.

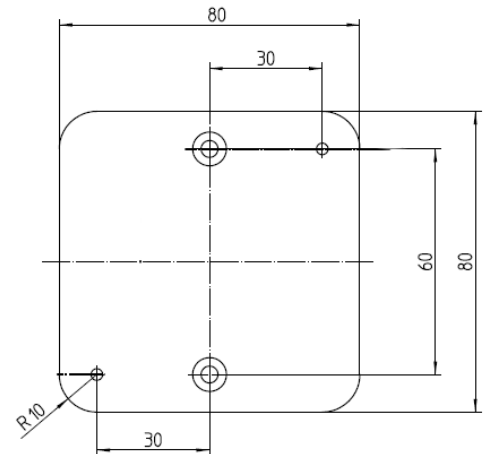
Rear view of SOT-WG gateway



The following guidelines must be observed for installation:

- Prior to final installation the intended location of installation should be checked for suitability.
- The physical distance to adjacent devices of the same type may not be less than 30 cm.
- The device should not be installed on conductive materials such as metal surfaces, metal grids (reinforcement) or metallised surfaces as these surfaces could effect a reduced radio range.
- EMC interference via supply leads or magnetic fields can disturb the wireless communication.

Adapter plate for latched mounting



The gateway can be plugged onto the supplied adapter plate.  
The gateway can then be latched into the adapter plate by moving the housing.

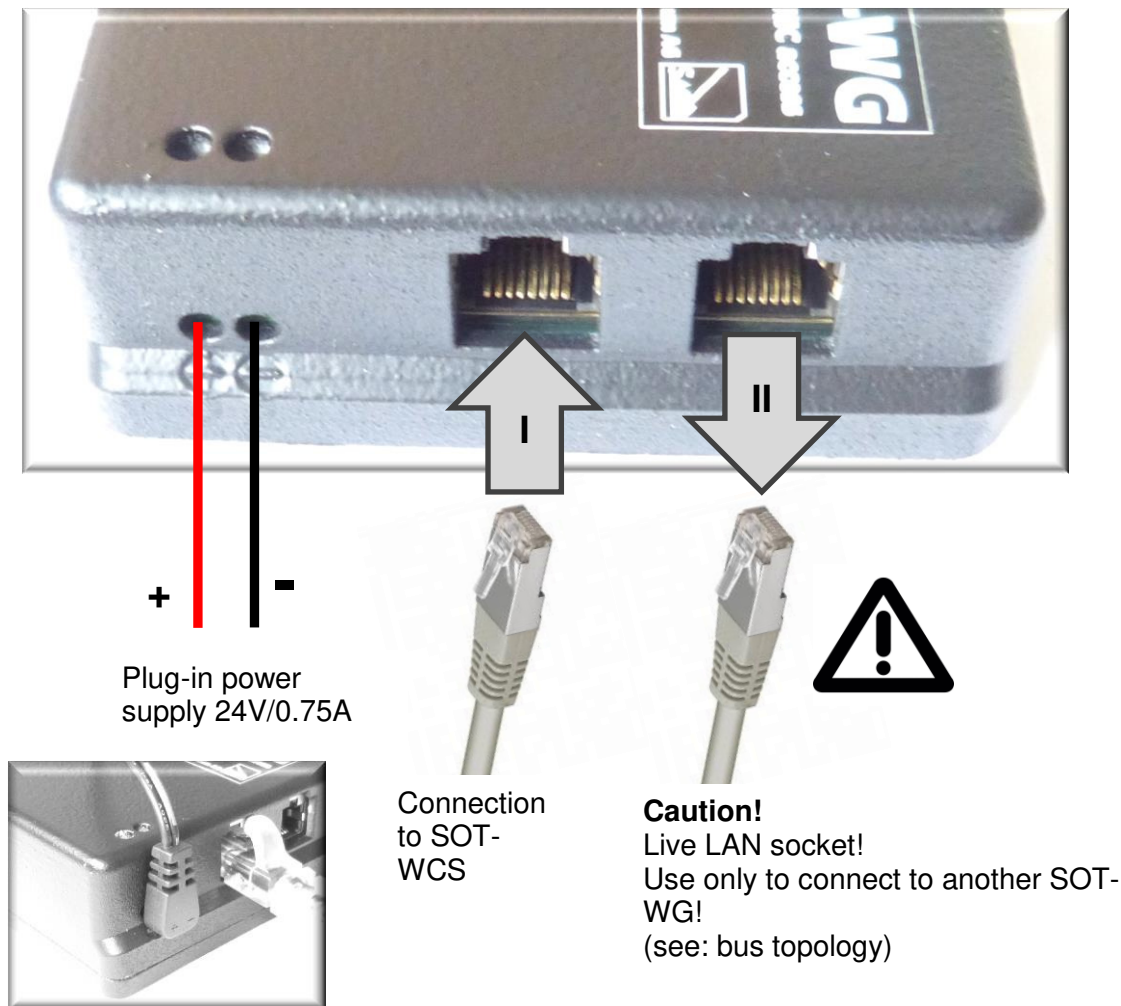


*Note:*  
Appropriate fastening material (screws, dowel pins and similar) must be provided on site.

## Connection

### Plug-in power supply 24V/0.75A

The plug-in power supply is connected via the two-pole screw terminal block. The gateway may only be operated using the plug-in power supply #300850203 from Schulte-Schlagbaum AG.



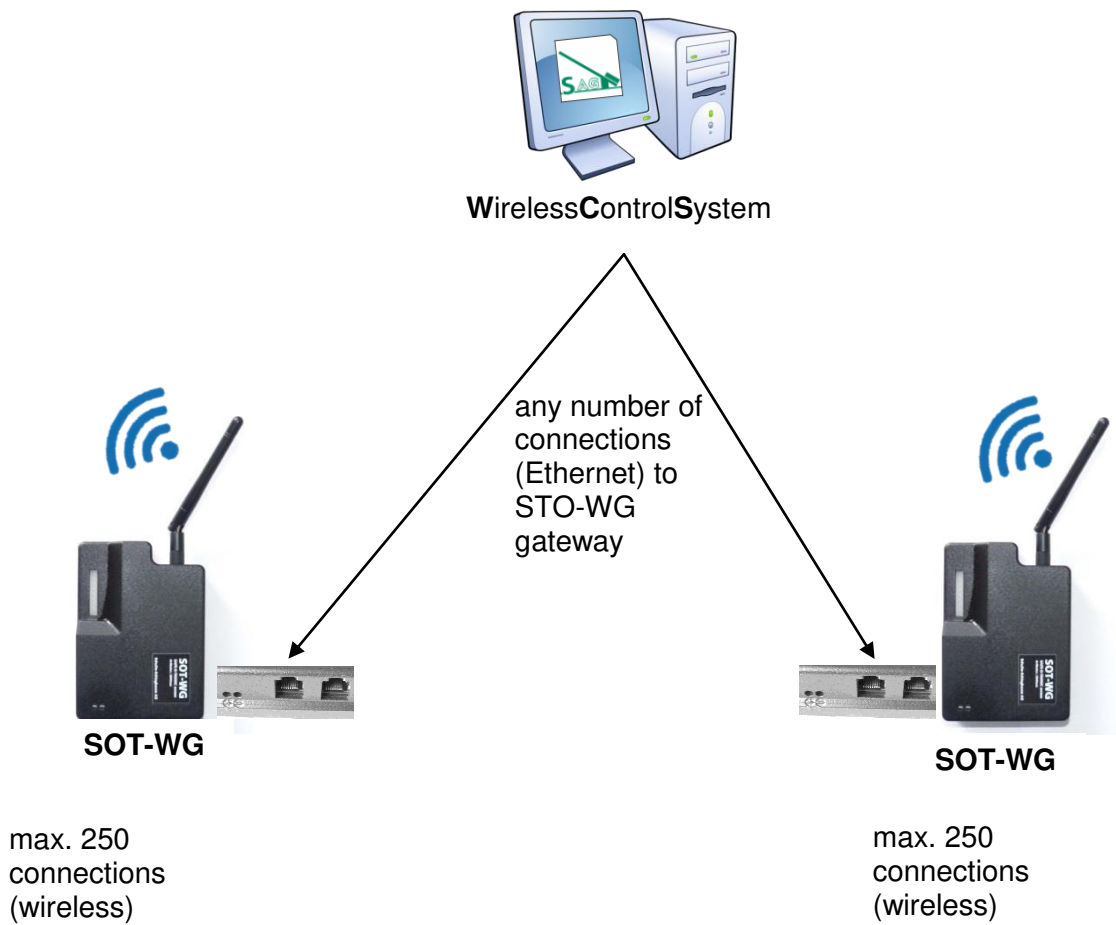
#### Note:

We recommend using a slotted screwdriver (0.6 x 3.5 x 100) for connecting the plug-in power supply to the SOT-WG gateway.



# General system topology

The following sections describes the physical topology of the network structure.



LSW200, 300, 400 with **SOT-WB** radio module

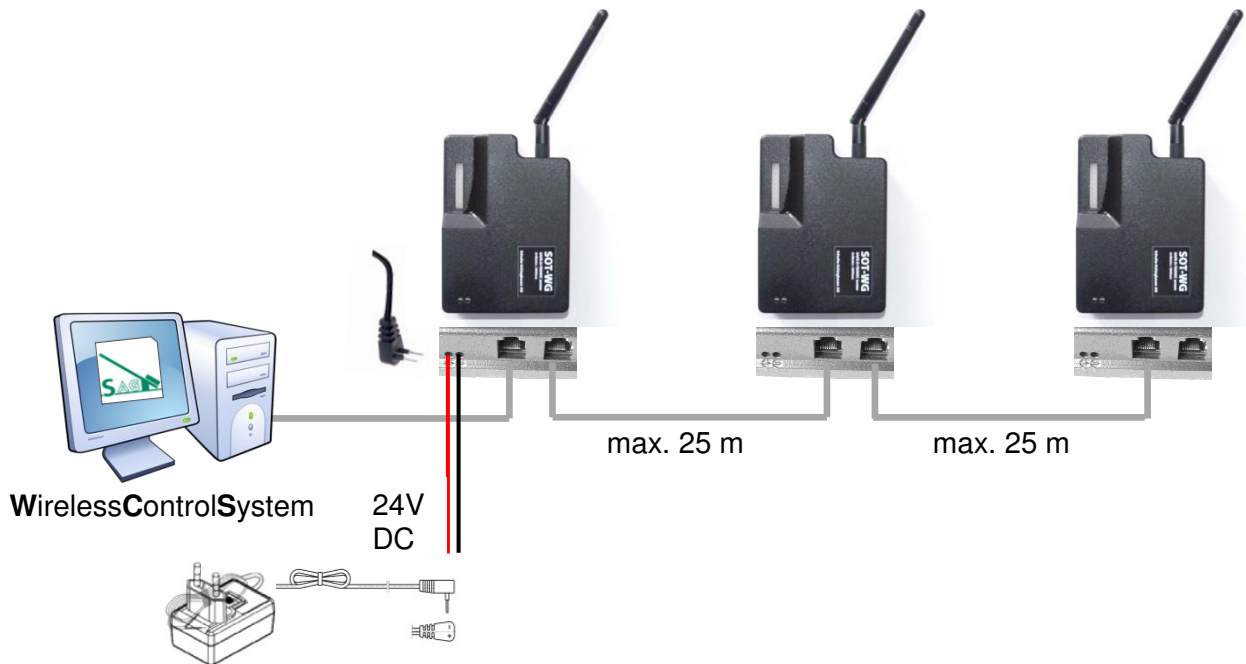


LSW200, 300, 400 with **SOT-WB** radio module

## SOT-WG power supply

### Bus topology

A power supply of 24V/0.75A is fed through the external plug-in power supply at the first gateway of the network. A maximum of three gateways can be supplied with one plug-in power supply.



### Advantages

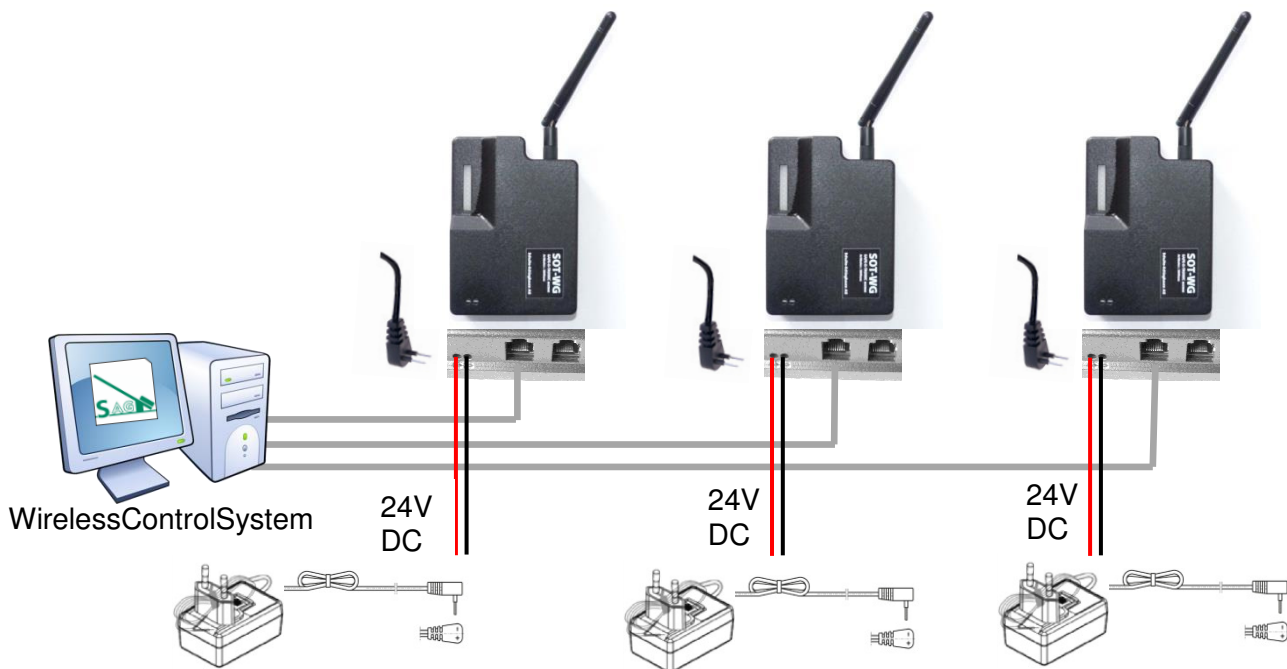
- Only limited costs as only low cable volumes are required
- Easy wiring and network extension
- No or only few active network components required

### Disadvantages

- A malfunction in the transfer medium at one single spot in the bus (faulty cable) can block the complete network.

## Star (point-to-point) topology

For a point-to-point Ethernet connection, each gateway must be provided with a plug-in power supply.



### Advantages

- Failure of a gateway does not affect the remainder of the network.
- Easy to extend
- Easier troubleshooting

### Disadvantages

- Increased cabling
- Failure of the distributor makes network traffic impossible

## Plug-in power supply

The SOT-WG gateway may only be operated using the supplied plug-in power supply #300850203 (24V/0.75A).



### Safety instructions for plug-in power supply

Interfering with and modifications of the plug-in power supply are dangerous and consequently not permitted.

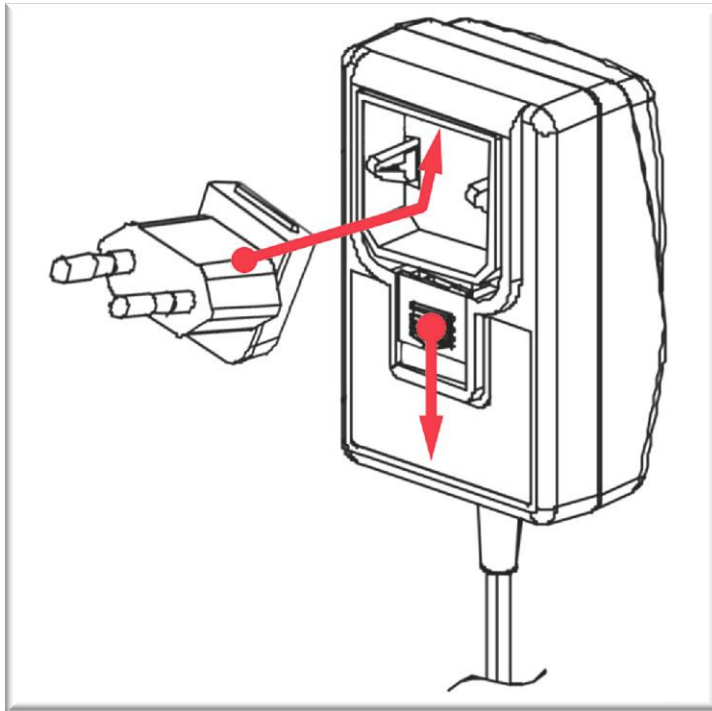
Take note of the following points in particular:

- The power supplies may only be used at ambient temperatures between 0°C and +40°C.
- Use of the power supply is not permitted in case of visible damage on the housing or cable.
- Never plug an existing primary adapter into the socket without the power supply. There is a danger of electric shock.
- The power supply should never be installed in areas that are exposed to moisture or condensation, certain environmental influences, constant vibration or severe temperature fluctuation, or in the open.
- Disconnect the power supply from the supply mains in case of a thunderstorm or longer periods without operation.
- Do not pull the cable to disconnect the power supply from the mains.
- The power supply is maintenance-free. It may not be opened. There is a risk of electric shock.
- Modification of the power supply is not permitted.
- The device may only be repaired by authorised qualified personnel.
- Disconnect the plug-in power supply from the mains before cleaning. Do not use chemical detergents for cleaning.
- The power supply may not be disposed of as household waste, but must be properly disposed of via a facility for electronic scrap.

Depending on the primary plug, the plug-in power supply carries CE marking or UL listing, so that suitable power supplies are available for worldwide use.

## Primary-side connection

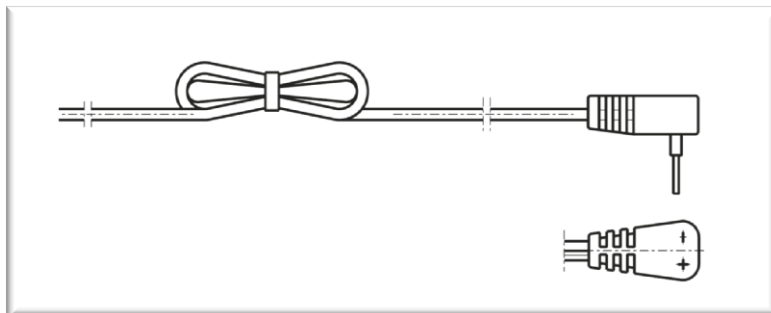
The plug-in power supply is equipped with a change adapter mechanism for connecting it to the mains voltage. The plug-in power includes Euro, US and UK adapters, which are fitted on the power supply body as follows:



To take out the primary adapter push the button marked with an arrow in the direction of the nameplate and remove the primary adapter from the power supply housing.

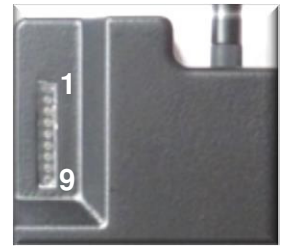
## Secondary-side connection

The power supply includes a 1.8 m long secondary cable with a special connector for screw terminals at the end. The polarity is indicated on the back of the connector with “+” and “-”.



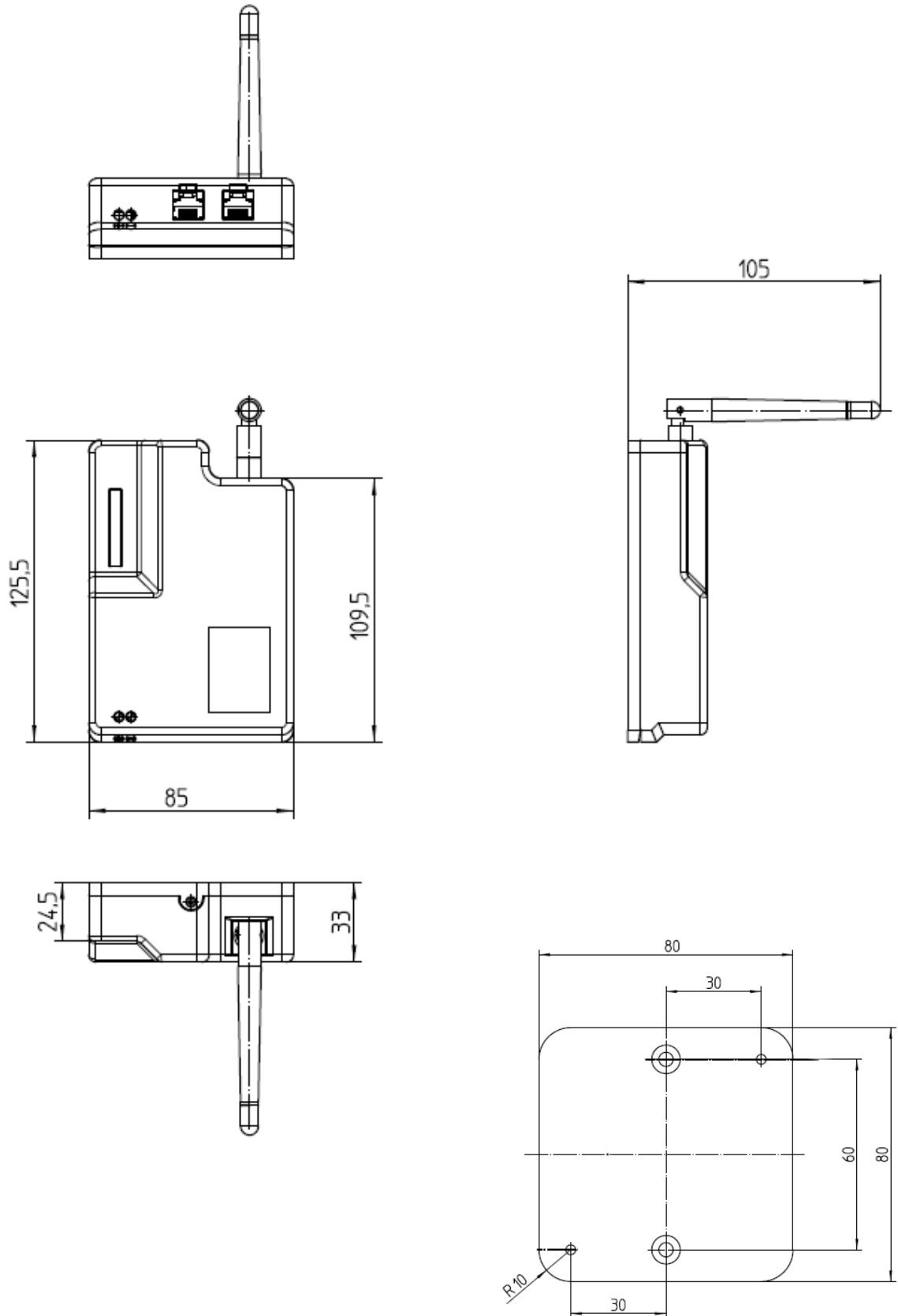
## Status messages LED

All important actions and operating modes are indicated by the LED display, the aim being to provide assistance in finding faults and operating errors. An explanation of the individual signals is provided in the table below.



No.	Colour		Status	Notes
1	Green	●	Power on	SOT-WG input voltage
2	Red	☀	Fault	Connection to SOT-WCS faulty
3	Blue	☀	Pairing mode	Only flashes in pairing mode
4	Orange	●	Pairing mode load > 200 LSW	Only active in pairing mode
5	Green	●	Initiation OK	Flashes in the initiation phase
		☀	Flashing, SOT-WG in factory setting	Flash cycle 1S
6	Green	●	Primary port, Link	Ethernet socket 1 Connection to SOT-WCS
7	Green	☀	Primary port, Speed	Ethernet socket 1 Connection to SOT-WCS
8	Green	●	Secondary port, Link	Ethernet socket 2 Connection to SOT-WG
9	Green	☀	Secondary port, Speed	Ethernet socket 2 Connection to SOT-WG

# Dimensions



## Technical data

<ul style="list-style-type: none"> <li>• <b>Housing base</b></li> <li>  <b>Dimensions (L x W x H)</b></li> <li>  <b>Colour</b></li> <li>• <b>Material</b></li> </ul>		125.5 mm x 85 mm x 33 mm Body: black PA
<b>Weight</b>		approx. 220 g
<b>Protection degree</b>		IP 20
<b>Power supply</b> <b>SAG # 300850203</b>		Plug-in power supply 24V/0.75A DC
<b>Power consumption</b>		typically 2.4 W
<b>Cable specification</b>		max. 100 m CAT 5 cable
<b>Temperature range</b>	<b>Operating mode</b> <b>Storage</b>	0°C to +40°C -10°C to +75°C
<b>Relative humidity</b>		95% (non-condensing)
<b>Antenna</b>		with SMA connector, approx. 111.70 mm x 10 mm
<b>Operating frequency</b>		2.4 GHz, ZigBee
<b>LED</b>		Blue, Green, Red, Orange (can be configured internally)
<b>Connection TCP/I</b>		LSA terminal
<b>Interface</b>		Ethernet 10BASE-T/100BASE-TX
<b>Ethernet factory settings</b>		IP address: 192.168.10.20 Subnet mask: 255.255.255.0 Default gateway: 0.0.0.0
<b>Server socket port number</b>		10001

## Approval

### Caution to Users

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### Europe (CE)

The radio installation - when used in accordance with its intended use - complies with the basic requirements of Article 3 and other relevant provisions of Directive 1999/5/EC dated March 1999.



Device class according to ETSI EN 300 330: Class 2

### FCC IDENTIFIER: Q3ILSW

#### Compliance Statements FCC

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

### Canada: IC 22566-LSW

#### Compliance Statements IC

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

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.