SuperWISE II

Communication unit to WISE

QUICK FACTS

- SuperWISE is the communication unit where all information is compiled to give a simple overview of the WISE system
- Loads and distributes the system's configuration file
- Possibility for connection via external communication protocol ModBus TCP, BACnet IP or API
- Updates software and synchronises functions throughout the whole WISE system without any downtime
- Possibility to connect to the Swegon INSIDE cloud to enable digital services

Swegon

Technical description

SuperWISE is the communication unit where all information is compiled to give a simple overview of the WISE system via a web interface. It loads and distributes the system's configuration file. It updates software and synchronises functions throughout the whole WISE system while operational.There is also a possibility to connect an external communication protocol ModBus TCP, BACnet IP or API.

Design

The communication unit is available in 4 variants:

- SuperWISE II
- SuperWISE II SC (with Swegon Connect)
- SuperWISE II 2K (for larger properties)
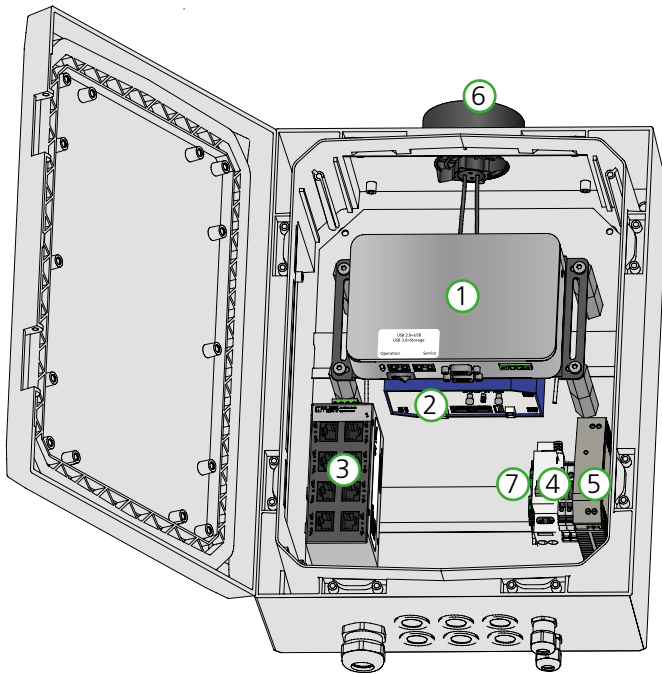- SuperWISE II 2K SC (for larger properties, with Swegon Connect)

Figure 1. SuperWISE II, SuperWISE II SC.
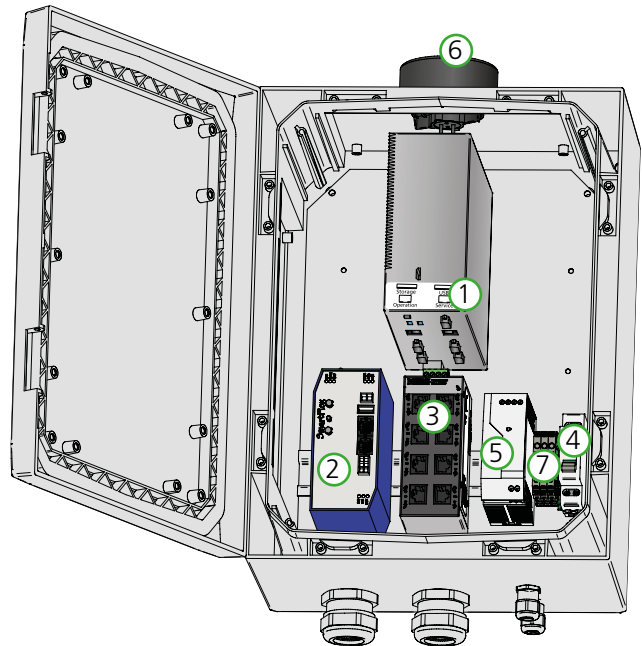*NOTE! Swegon Connect (2) and antenna (6) only included in SuperWISE II SC.*

Figure 2. SuperWISE II 2K, SuperWISE II 2K SC.
NOTE! Swegon Connect (2) and antenna (6) only included in SuperWISE II 2K SC.

1. SuperWISE control unit - Main communication unit

2. Swegon Connect – Router (is only included in SuperWISE II SC/SuperWISE II 2K SC). Communicates on the mobile network and ideally on the 4G network. If the cabinet contains Swegon Connect, the cabinet must be placed so that it can receive mobile signals. The cabinet can be supplemented with an extra antenna for increased signal strength (see Accessories) for improved mobile coverage. See the separate documentation for Swegon Connect on www.swegon.com

3. Switch - 8 ports (if more ports are required, install a supplementary switch outside of the cabinet)

    - Port 1: SuperWISE control unit
    - Port 2: Swegon Connect
    - Port 3-8: Free for e.g. WISE DIR/AHU/BMS

4. Main switch - Connection of the power supply

5. Transformer

6. Antenna, only included in SuperWISE II SC/SuperWISE II 2K SC

7. Earth connection

Swegon

Functions

SuperWISE is the communication unit where all information, communications, control and calculations are compiled and presented in a web interface or via an external communication protocol.

Loading and distribution of the configuration file

An important function of SuperWISE is to load the system's configuration file and ensure that it is distributed to the entire system. In this way the functionality and setpoint values of the system's different products are assigned.

NOTE! Without a loaded configuration file the system will not start, but instead switches to default mode.

Updating the software

The system software can be updated on site by connecting a USB memory to SuperWISE or remotely via the web interface.

The update process is started via the web interface. The different software is sent out during operations where after the system automatically restarts. As the software is sent out during operations, and all units are updated from one and the same point, a complete software update takes up to seven hours.

Synchronisation of functions

All radio products check that they have the right configuration according to the configuration file during start up through communication with WISE DIR. If the unit's configuration corresponds with the one in WISE DIR the unit starts up. Otherwise the unit's configuration is synchronised with the one in WISE DIR. The product's LED flashes with a blue light when it awaits configuration, and lights with a fixed green light during normal operations.

Web interface

The SuperWISE web interface helps users to use, maintain and optimise their WISE-system. The interface and its different functions are described in the WISE User manual.
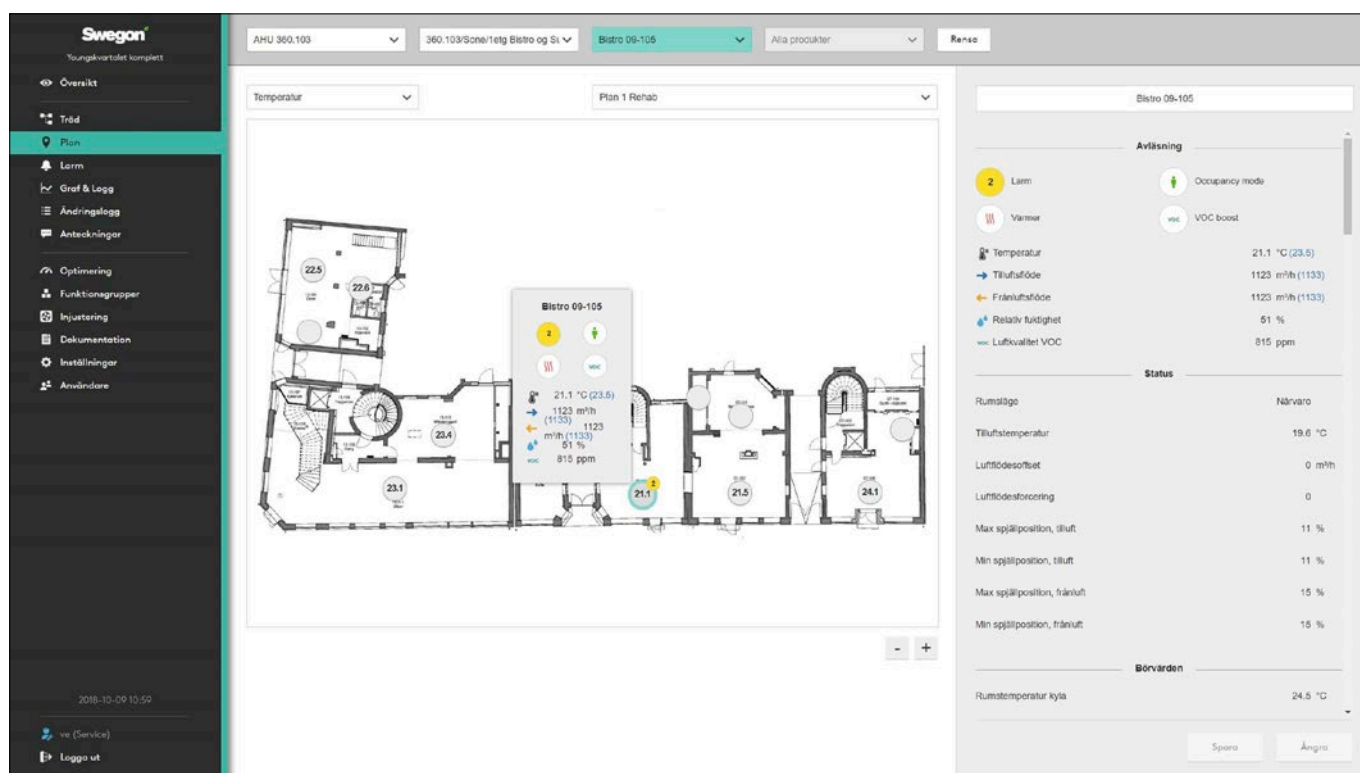

Figure 3. SuperWISE web interface.

Connection of the operating net to SuperWISE II / SuperWISE II SC

SuperWISE II / SuperWISE II SC - Connection port "Operation"

WISE DIR (Director) - Connection port 4

Control card, GOLD - Connection port B
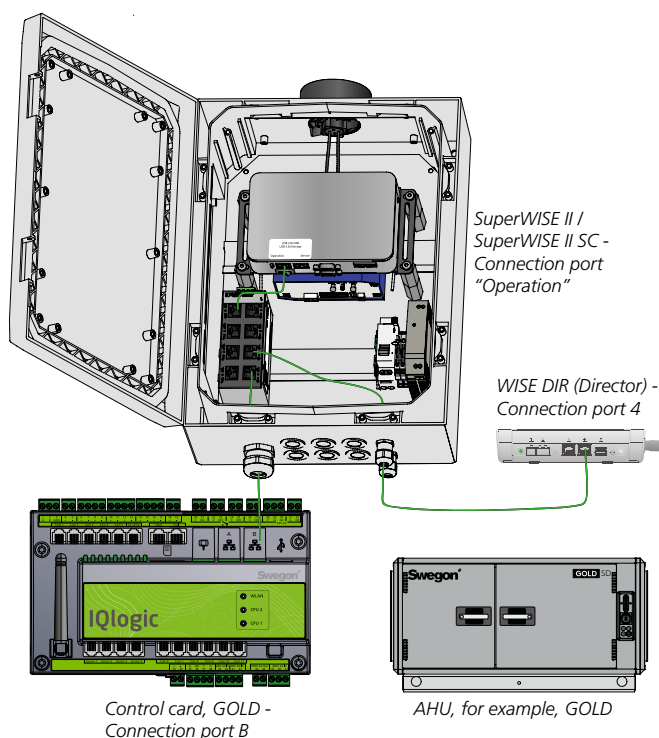
AHU, for example, GOLD

Figure 4. Connection of the operating net, SuperWISE II, SuperWISE II SC.

Connection of the operating net to SuperWISE II 2K / SuperWISE II 2K SC

SuperWISE II 2K / SuperWISE II 2K SC - Connection port "Operation"

WISE DIR (Director) - Connection port 4

Control card, GOLD - Connection port B
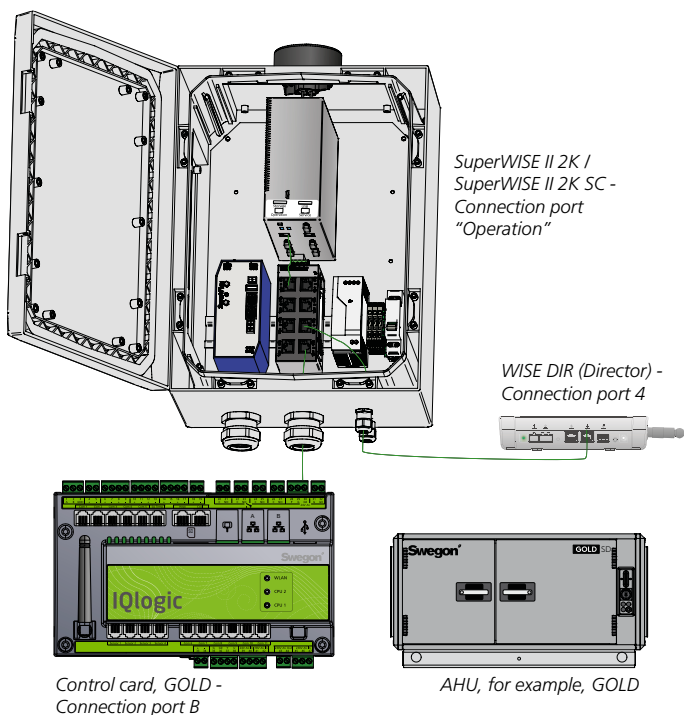
AHU, for example, GOLD

Figure 5. Connection of the operating net, SuperWISE II 2K, SuperWISE II 2K SC.

Materials and surface treatment

- The cabinet is made of polycarbonate (PC), colour code: RAL 7035 (Industrial grey).

Accessories

- Extra antenna for increased signal strength TBRX-2-11, only for SuperWISE II SC/SuperWISE II 2K SC.
- Extension cable for antenna TBRX -1-12, only for SuperWISE II SC/SuperWISE II 2K SC.

Project planning

See the separate documentation "WISE System Guide", which is available for download via www.swegon.com.

Maintenance

The product does not require any maintenance/service, except for any cleaning when necessary. See the separate Instructions for Use, available on www.swegon.com.

Environment

The Building Materials Declaration is available from www.swegon.com.

Technical data

Output power (ERP) SuperWISE SC/SuperWISE 2K SC	
External mobile network:	Max. 2W (GSM mode)
Frequency band SuperWISE SC/SuperWISE 2K SC	
External mobile network:	900/2100... MHz
USB:	Type A
Switch/ Ethernet:	Switch supports 3 (Gold/AHU) + 3 outputs (WISE DIR)
IP class:	IP44
Ambient temperature	
Operation:	-20 – +50°C
Storage:	-40 – +80°C
RH:	10-95% non-condensing
CE marking:	2014/53/EU (RED)
	2011/65/EU (RoHS2)

Electrical data

Power supply:	230V 10 A
Connections pipe dim.	
Power terminals:	Max. 2.5 mm^2
Suitable cable diameter through the chassis (screw terminals):	5-10 mm
Max. power consumption	
SuperWISE:	34W
SuperWISE SC:	34W
SuperWISE 2K:	60W
SuperWISE 2K SC:	60W

Swegon
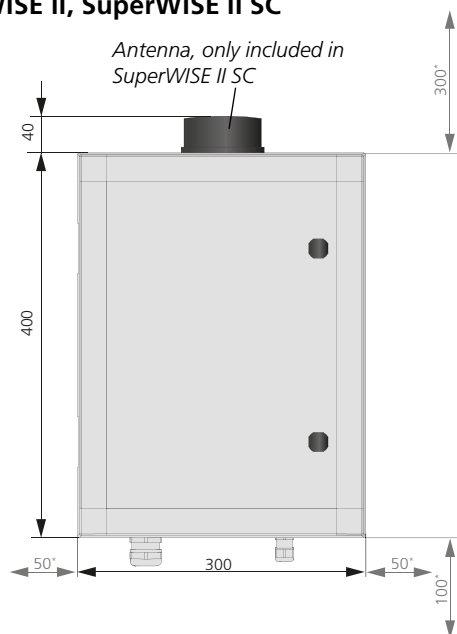
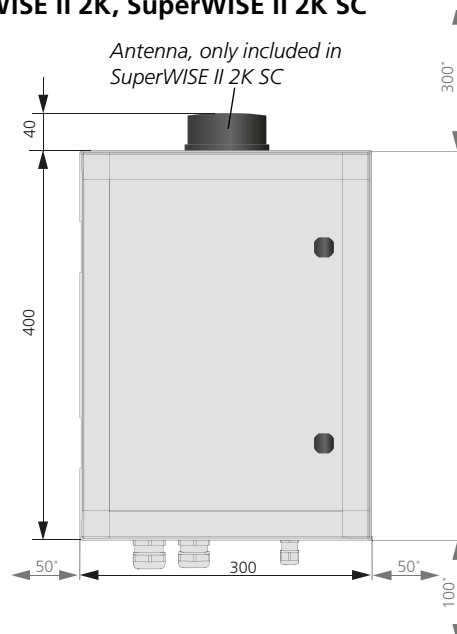# Installation, dimensions and weights

SuperWISE II, SuperWISE II SC

*Figure 6. SuperWISE II, SuperWISE II SC, measurement figure (mm). *Minimum free clearance to nearby installations.*

Figure 8. Holes for installation (mm), SuperWISE II, SuperWISE II SC. 4x installation screws (clearance hole Ø = 8 mm), screw selection based on the substrate.

Figure 10. SuperWISE II, SuperWISE II SC underside, measurement figure (mm).

Weight (kg)	
SuperWISE II	5,8
SuperWISE II SC	6,3

SuperWISE II 2K, SuperWISE II 2K SC

*Figure 7. SuperWISE II 2K, SuperWISE II 2K SC, measurement figure (mm). *Minimum free clearance to nearby installations.*
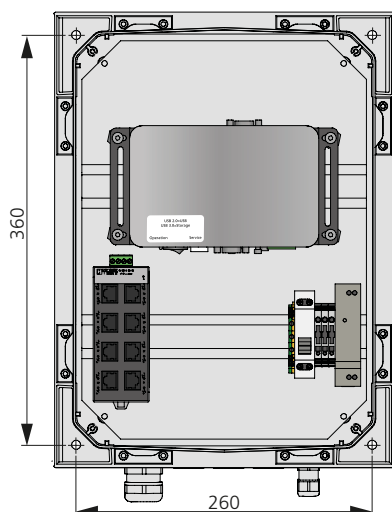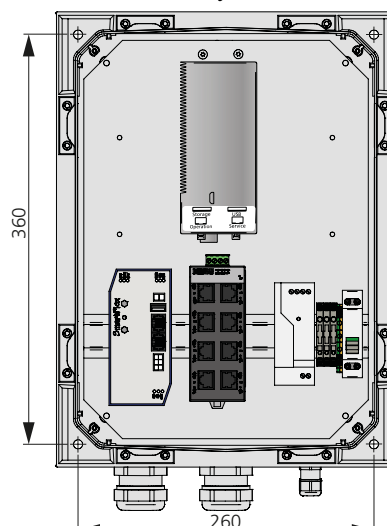

Figure 9. Holes for installation (mm), SuperWISE II 2K, SuperWISE II 2K SC. 4x installation screws (clearance hole Ø = 8 mm), screw selection based on the substrate.
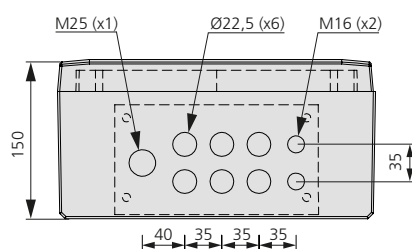

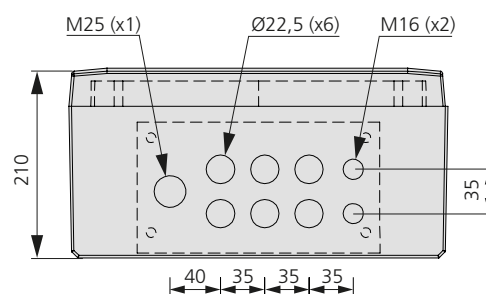*Figure 11. SuperWISE II 2K, SuperWISE II 2K SC underside, measurement figure (mm).*

Weight (kg)	
SuperWISE II 2K	7,1
SuperWISE II 2K SC	7,6

Ordering key

Product

Communication unit	SuperWISE II	bb	a
	SuperWISE II 2K		
With Swegon Connect: SC			
Version:			

Accessories

Extra antenna for increased signal strength	TBRX -2-11

Extension cable for antenna	TBRX-1-12	-aa
Length: 1 m = 01, 10 m = 10		

Subscription 2+3 years (3 Additional subscription years)	TBSX-3

Specification text

Fabrikat: Swegon

Typ: SuperWISE II

Communication unit for Swegon's system WISE, with the following functions:

- Available in four variants, depending on the property size and with our without Swegon Connect.
- Compiled information to give a simple overview of the WISE system.
- Handling of the system's configuration file.
- Connection via external communication protocol.
- Program updates and synchronization of functions in the entire WISE system without downtime.
- Wireless communication in Swegon's demand controlled indoor climate system WISE.
- Adapted for mounting on wall.

Specification

Power supply:	230V 10 A
IP class:	IP44

Type:	SuperWISE II a	xx items
	SuperWISE II SC a	
	SuperWISE II 2K a	xx items
	SuperWISE II 2K SC a	

Accessories

Extra antenna for increased signal strength	TBRX-2-11	xx items
Extension cable for antenna	TBRX-1-12-aa	xx items

Swegon