Function guide, GOLD Version E/F/G
Connecting the air handling unit to Swegon INSIDE

1. General

Swegon INSIDE Portal is the starting point for Swegon products that are compatible with Swegon INSIDE. From the INSIDE Portal, you can read the status of the connected unit, create an intuitive energy report, forward alarms, and request additional digital services.

GOLD can be connected to the INSIDE Portal in two ways. Either through the property's existing network or via an INSIDE Connect router.

Remote access to the GOLD unit's internal website requires the INSIDE Connect service with an associated router.

NOTE! Permission from the IT administrator is required to connect Swegon INSIDE to the customer's network.

2. Material Specification

Air Handling Unit **GOLD RX/PX/CX/SD**
All types of GOLD manufactured after week 22, 2023 or updated with software version 2.42 or higher

INSIDE Connect for installation in GOLD **TBLZ-1-98**

Contains: INSIDE Connect router
Patch cable
Power supply cable

INSIDE Connect,
supplied loose + 24 VDC transformer **78755**

Contains: INSIDE Connect router
Power supply unit

INSIDE Connect, placed in an electrical cabinet **78756**

Contains: INSIDE Connect router mounted in an electrical cabinet (IP66)

INSIDE Connect and switch,
placed in an electrical cabinet **78757**

Contains: INSIDE Connect router + switch mounted in an electrical cabinet (IP66)

INSIDE Connect,
supplied loose, without 24 VDC transformer **78759**

Contains: INSIDE Connect router

Antenna (accessory) **93868**
External antenna with a 10 m cable for connection to the LTE socket on the router. Mounted with screws. IP65

3. Function

Air handling units manufactured during or after Week 22, 2023, are supplied with a factory certificate. Air handling units manufactured before can be equipped with certificates retrospectively (retrofit), see Section 5.1.2.

When connecting two or more GOLD air handling units, the first unit can keep its network settings while the IP addresses of secondary air handling units must be changed to avoid conflict. The default gateway must be the same for all products connected to INSIDE Connect.

Swegon reserves the right to alter specifications.

4. Connection

Swegon INSIDE connects products from Swegon to Swegon's cloud either directly via the property's existing network or using a router supplied by Swegon.

There is normally no need for an external antenna. The signal strength for INSIDE Connect is usually good enough but, in certain installations, an antenna should be considered.

4.1 Property network (Option 1)

Port B on IQlogic is connected to the property network.

If the property network is used, the necessary firewall settings must be entered. If these settings are blocked by the property network, changes to the firewall settings may be necessary.

Firewall settings for Swegon Cloud
Swegon's cloud solution uses services from Microsoft Azure and certificates from Digicert to secure the connection.

If the products inside the firewall allow outgoing Internet traffic, it will work. If the firewall is set to check outgoing traffic, the following ports and addresses must be allowed. If filtering is done only on ports, 443 and 8883 are used.

If your firewall permits wildcards in the "allow" list, the recommendation is to use this. If not, add the specific URLs in brackets in the table below.

Domain (including subdomain)	Port	Protocol	Note
***.azure-devices-provisioning.net** (dps-SwegonCloud-common-we.azure-devices-provisioning.net global.azure-devices-provisioning.net)	443 8883	https mqtt	Azure Device Provisioning Service
***.azure-devices.net** (iot-SwegonCloud-prod-we.azure-devices.net)	443 8883	https mqtt	Azure IoT Hub
***.blob.core.windows.net** (stswciotfilestorageprod.blob.core.windows.net)	443	https	Azure storage
clientauth.one.digicert.com	443	https	Digicert Enrolment over Secure Transport (EST) for certificate enrolment and reenrolment

4.2 Router (Option 2)

The INSIDE Connect router is supplied with a mounting bracket that fits a DIN rail and can be screw-mounted.

If a router supplied loose is mounted with screws, the router must be installed with its connections facing upwards. This minimises the risk of the unit loosening, falling on the ground and being damaged.

Connect the router to port B or port A on the air handling unit's control circuit board. See more detailed instructions in Section 3.

The supply voltage is connected either via cable to the port marked COM5 on the IQlogic control unit, or via an external supply voltage unit.

It is also possible to use a separate electrical cabinet for INSIDE Connect where a switch can be used to connect more products to the same INSIDE Connect.

If the router is ordered with an electrical cabinet, the router is already installed on delivery.

If the air handling unit is connected both to the building's network and the INSIDE Connect router simultaneously and the firewall blocks data, you can choose to send data via INSIDE Connect. See also Section 5 on activating INSIDE Connect.



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5. Settings

For basic instructions for how to use the hand-held micro terminal, see the Operation and Maintenance Instructions for the GOLD unit.

Go to the menu Functions/Setup/Communication in the air handling unit's hand-held terminal or on the unit's website.

5.1 Certificate

5.1.1 Air handling unit equipped with factory certificate

Air handling units manufactured week 22, 2023 or later are equipped with certificates from the factory.

To check whether a factory certificate is available, activate the Swegon INSIDE function and read "Certificate status", see below.

Certificate valid	Valid certificate available.
Certificate not found	Certificates must be obtained via Swegon, see Section 5.1.2.
Renewal failed	Connection to DigiCert missing. Check firewall settings, see Section 4.1.

Expired certificate

The certificate has expired. A retrofit must be performed to obtain a new valid certificate, see Section 5.1.2.

Certificates are normally renewed automatically, but if the correct conditions for renewal do not exist, the certificate will eventually become invalid.

5.1.2 Retrofit, if factory certificate is missing

If no certificate is available, Retrofit must be performed.

Certificate ID and Activation code can be obtained from the INSIDE Portal, see also Section 6.

Enter the Certificate ID and Activation code and click Activate.

If activation fails, and the ventilation unit is connected via the property network, see Section 4 for firewall settings.

5.1.3 Communication via property network

If IQlogic Port B is connected to the property network: Go to Communication/External port B.

If DHCP is activated, an IP address will be assigned to IQlogic from the network.

If a static IP is used, contact your IT organisation.

Make sure that standard gateway and DNS are filled in. (Default: 8.8.8.8)

Go to Communication/Swegon INSIDE.

Activate Swegon INSIDE.

IQlogic will now start sending data to Swegon's cloud service. To create an account and start monitoring your GOLD unit via INSIDE Portal, see Section 6.



5.1.4 Communication via Swegon INSIDE Connect

GOLD Port B

If router INSIDE Connect is used on Port B, the default settings for external port B can be used (IP address 10.200.1.1, subnet mask 255.255.255.0, primary DNS 8.8.8.8).

Settings are then managed in the INSIDE Portal to connect the INSIDE Connect router to the GOLD, see Section 6.

GOLD Port A (single unit only)

If INSIDE Connect router is used on Port A, settings can be managed in the INSIDE Portal where IP address 169.254.234.1 and subnet mask 255.255.255.0 are specified. See IP address and subnet mask in GOLD under Communication/Port A.

For further information, see the information on the web page www.swegon.com (https://www.swegon.com/sv/support/software/uppkopplade-produkter/).

5.1.5 Communication via Swegon INSIDE Connect router and the property network in parallel

If an INSIDE Connect is connected in parallel with the property network, you can select where the traffic is sent and what should be sent by activating the "Communication via INSIDE Connect" function.

The router's IP address, which can be found in the INSIDE Portal, is also specified here.

6. Swegon INSIDE Portal

In order to add products, obtain Certificate ID and activation code, and to read data, an account must be created.

To make the GOLD unit INSIDE-ready, create an account, log in to the INSIDE Portal and add the relevant GOLD unit. Enter the MAC address that can be found under the Communication/External port B icon and on the label on the GOLD air handling unit's control unit.

For more information and to create an account, go to: https://www.swegon.com/sv/support/software/uppkopplade-produkter/.

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