Guide to the GOLD version E/F/G functions
Exhaust air heating

1. General

By heating the exhaust air, you can utilise the remaining energy that is already present in the exhaust air to keep warm e.g. a garage or other premises where you want to maintain a constant, frost-free temperature. By placing a coil in the exhaust air, you can raise the temperature of the exhaust air further.

The exhaust air heating function can control the air heater as follows:

- Electric air heater, pause/pulse control signal.
- Electric air heater, 0-10 V.
- Air heater for hot water, 0-10 V control signal, with anti-frost monitor/heat retaining function.
- Air heater for hot water, 0-10 V control signal, without anti-frost monitor/heat retaining function.

The exhaust air heating function has a relay function for controlling a circulation pump, if required.

The exhaust air heating function cannot be activated at the same time as the min. exhaust air function is activated.

2. Material specification

Air handling unit	**All types of GOLD, apart from SD supply air, with Pv.2.43 or higher**
Air heater, water	**TBLA/TCLA**
or	
Electric air heater	**TBLE/TCLE**
IQlogic+ Function module bb = selected cable length	**TBIQ-3-2-bb**

Valve set **TBVL-3-aa-b** can be used. If the valve and valve actuator are not included in Swegon's supply, a **TBLZ-1-27-a** set of components for electrical connection is required.

Temperature sensor (set) for duct mounting	**TBLZ-1-30**

3. Function

The set point for the required temperature of the exhaust air is specified in the function under the heading Heating (Functions/Core/Heat).

The duct temperature sensor is required to prevent sensor alarms from tripping. The control signal regulates the air heater to keep temperature by sensor at the preset value.

The exhaust air heating control function begins when the supply air fan is running and an airflow reading appears in the terminal screen.

Air heater for hot water:
During the start-up phase, the exhaust air and postheating air heaters simultaneously heat each airflow according to the same settings.

Electric air heater:
The air heater for exhaust air heating is cooled down according to the same settings as those for the air heater for postheating.

The output is reduced when the airflow rate is low.

An overheating protection with normally-closed contacts monitors the state of the air heater. If the contacts open, an alarm is initiated.

Air heater for hot water with anti-frost monitor:
The heat-retaining function is automatically activated.

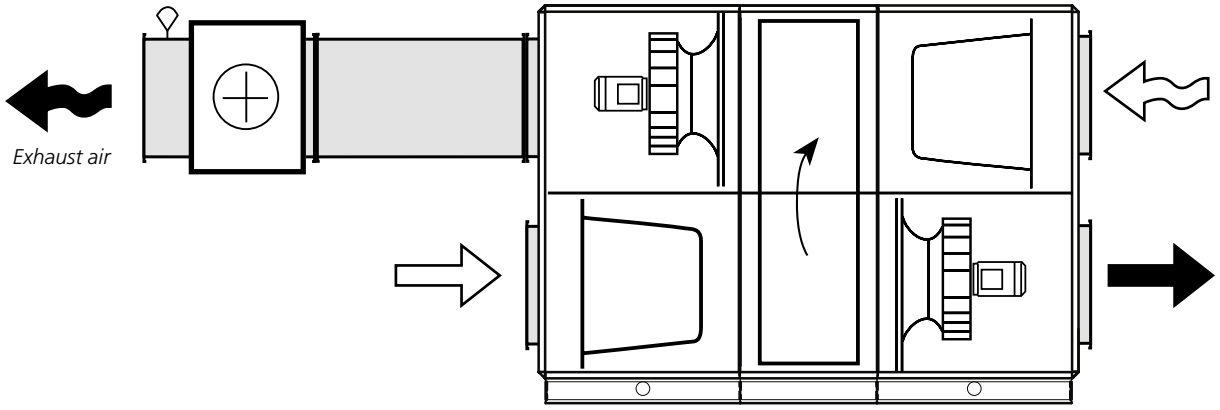
Limit settings for heat retention and alarms are entered separately for exhaust air heating.

A frost guard sensor is required to prevent sensor alarms from tripping.

Air heater for hot water without anti-frost monitor:
No heat-retaining function and no alarm for a faulty anti-frost sensor.

When heating is required and the outdoor temperature is low, the relay for controlling the circulation pump operates in the same way as the GOLD control system's regular heating relay.

Periodic operation is set separately for exhaust air heating.



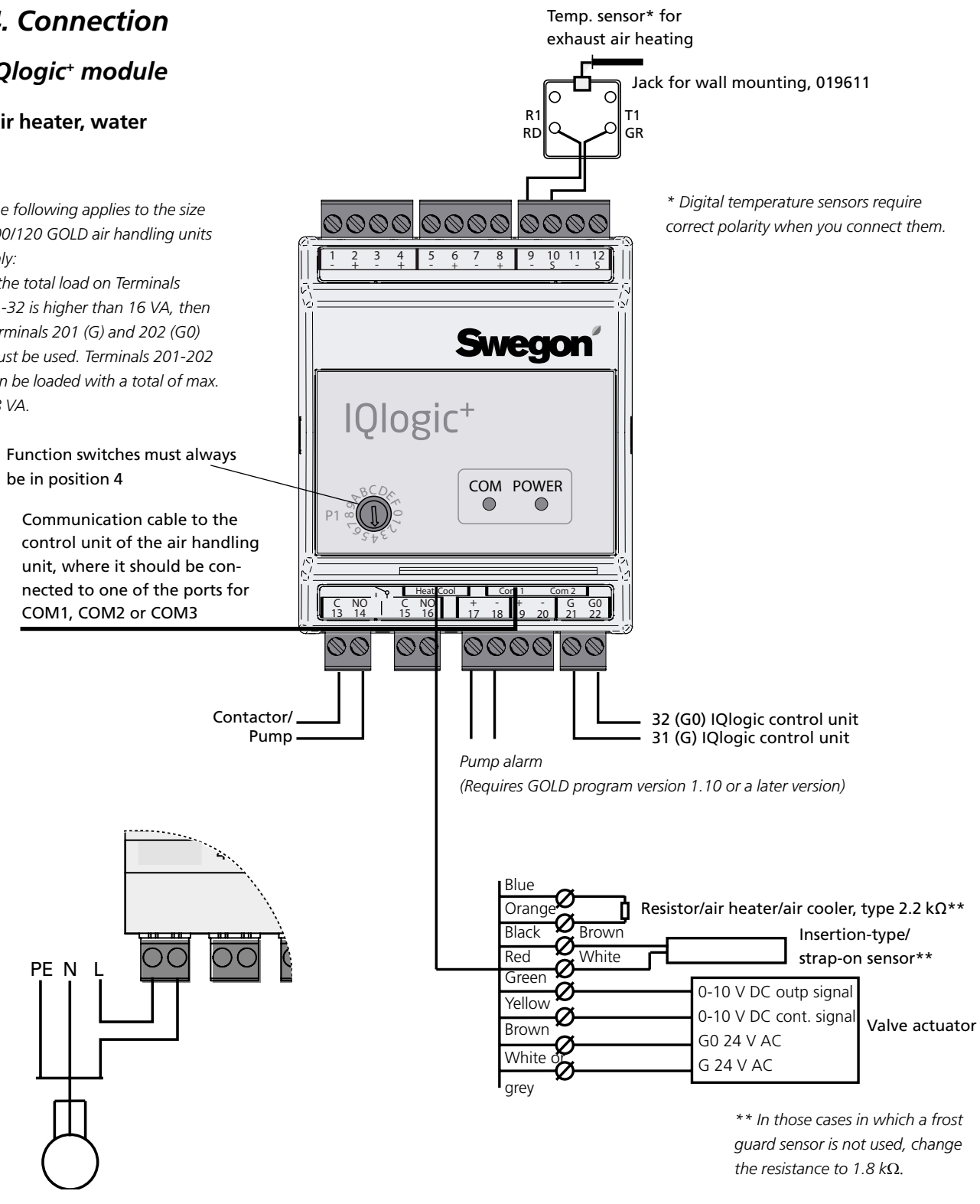
Swegon reserves the right to alter specifications.

4. Connection

IQlogic+ module

Air heater, water

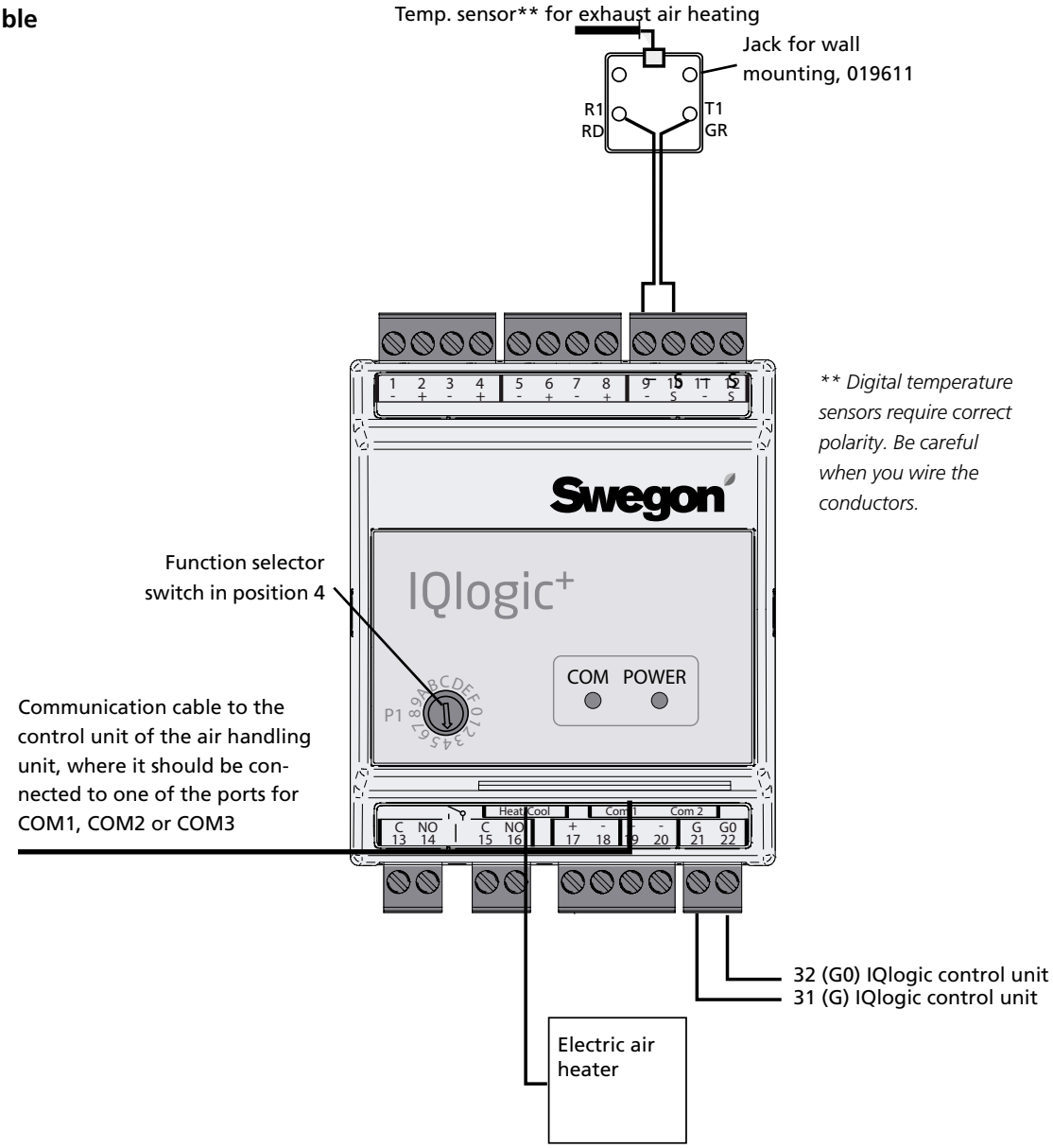
The following applies to the size 100/120 GOLD air handling units only:
If the total load on Terminals 31-32 is higher than 16 VA, then Terminals 201 (G) and 202 (G0) must be used. Terminals 201-202 can be loaded with a total of max. 48 VA.



Pump control

Feed voltage for the 1-phase pump, max. 1.5 A, can be supplied from terminals inside the air handling unit.
***GOLD**: terminal 101 (L), terminal 102 (N).*

Electric air heater, standard Swegon model with control cable



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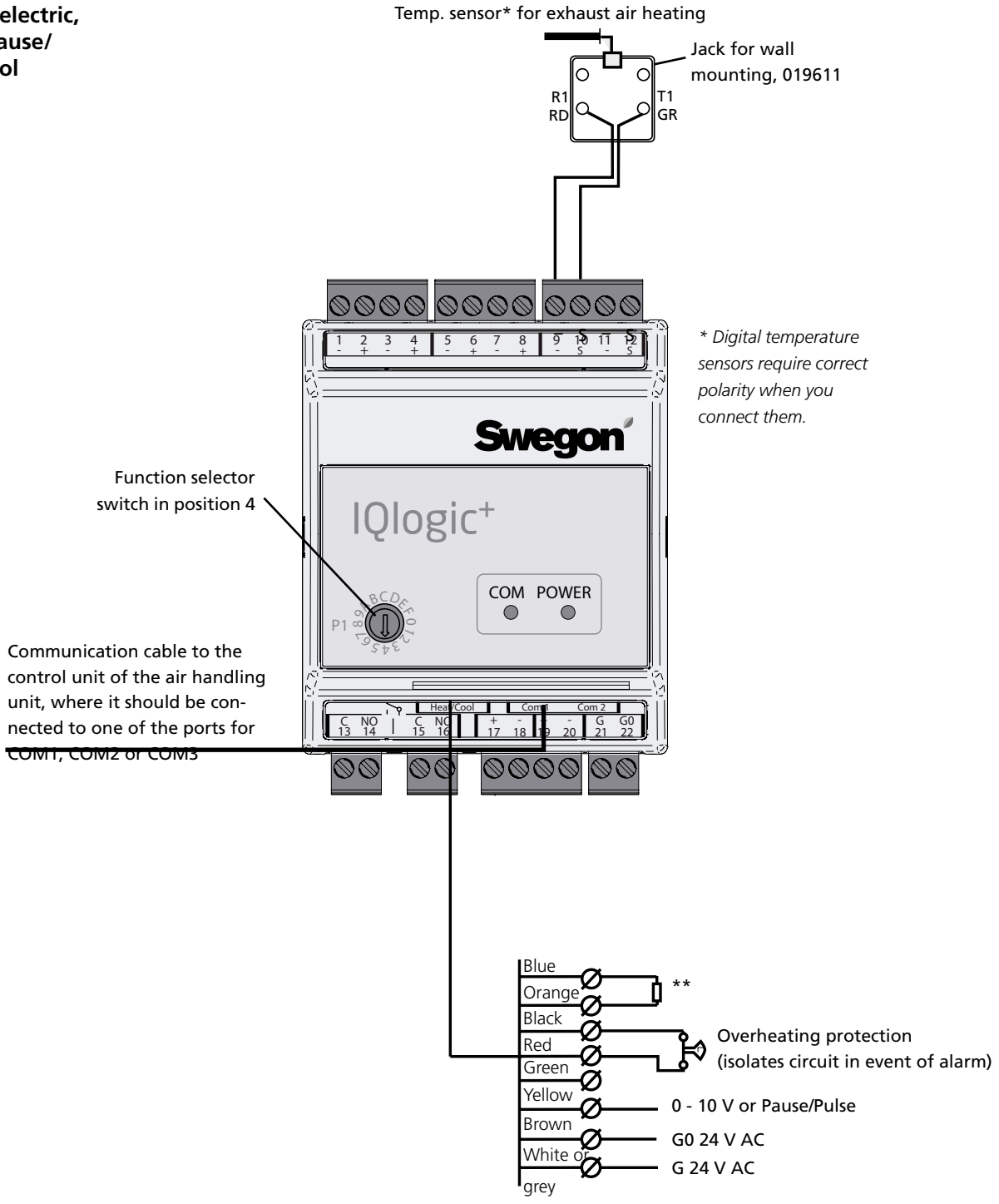
Air heater, electric, 0-10 V or Pause/ Pulse control



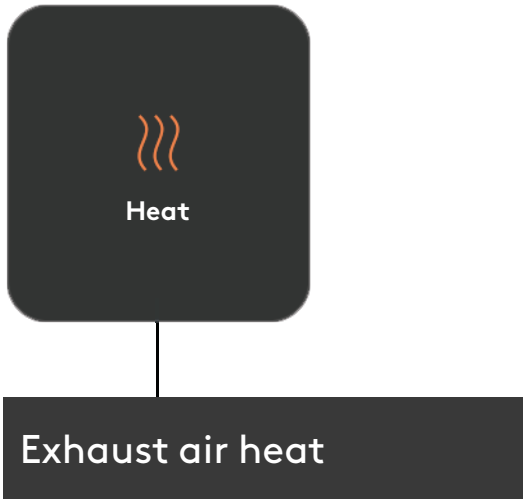
*** Different resistance is required depending on the type of electric air heater and its step-switching configuration. For correct selection of resistance, contact Swegon.*

5. Settings

For basic details on how to use the hand-held terminal, see the Operation and Maintenance Instructions for the GOLD Air Handling Unit.

The Exhaust air heating function must be activated manually under Functions/Core/Heat.

1. Select Exhaust air heating.
2. Activate the function.
3. Set the set point required.
4. Set the required values for exercising the pump and valve.

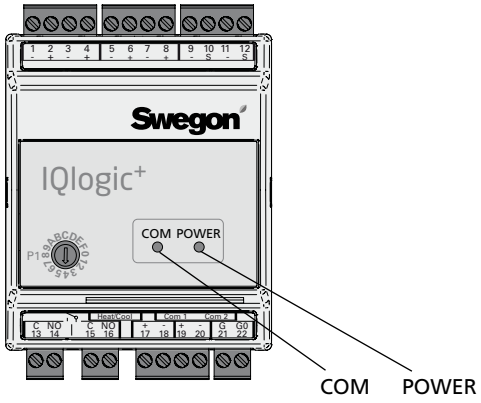


6. Performance checks

IQlogic⁺ module:

LED POWER indicates that power is being supplied from the GOLD air handling unit's control unit with a steady light.

LED COM indicates correct communication with the GOLD air handling unit's control unit with a flashing light.



Temperature sensor:

Current temperatures can be read under Temperature – Status. If the temperature readings are reasonable, wiring has been carried out correctly.

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