

Installation instructions for the Control box for fixed-speed controlled pump, part no. 80525881, coil heat exchanger, GOLD

1. General

The control box for coil heat exchangers consists of an IQlogic+ module mounted inside a metallic enclosure.

Necessary wiring terminals and transformer as well as contactors are provided for connection to external components. The metallic enclosure has cable gland screw caps for cable entry.

2. Application area

The control box is designed for controlling a pipework package for coil heat exchangers.

3. Installation

The control box can be mounted on a wall, air handling unit or some other suitable place. Use four screws for the installation (not included in the supply).

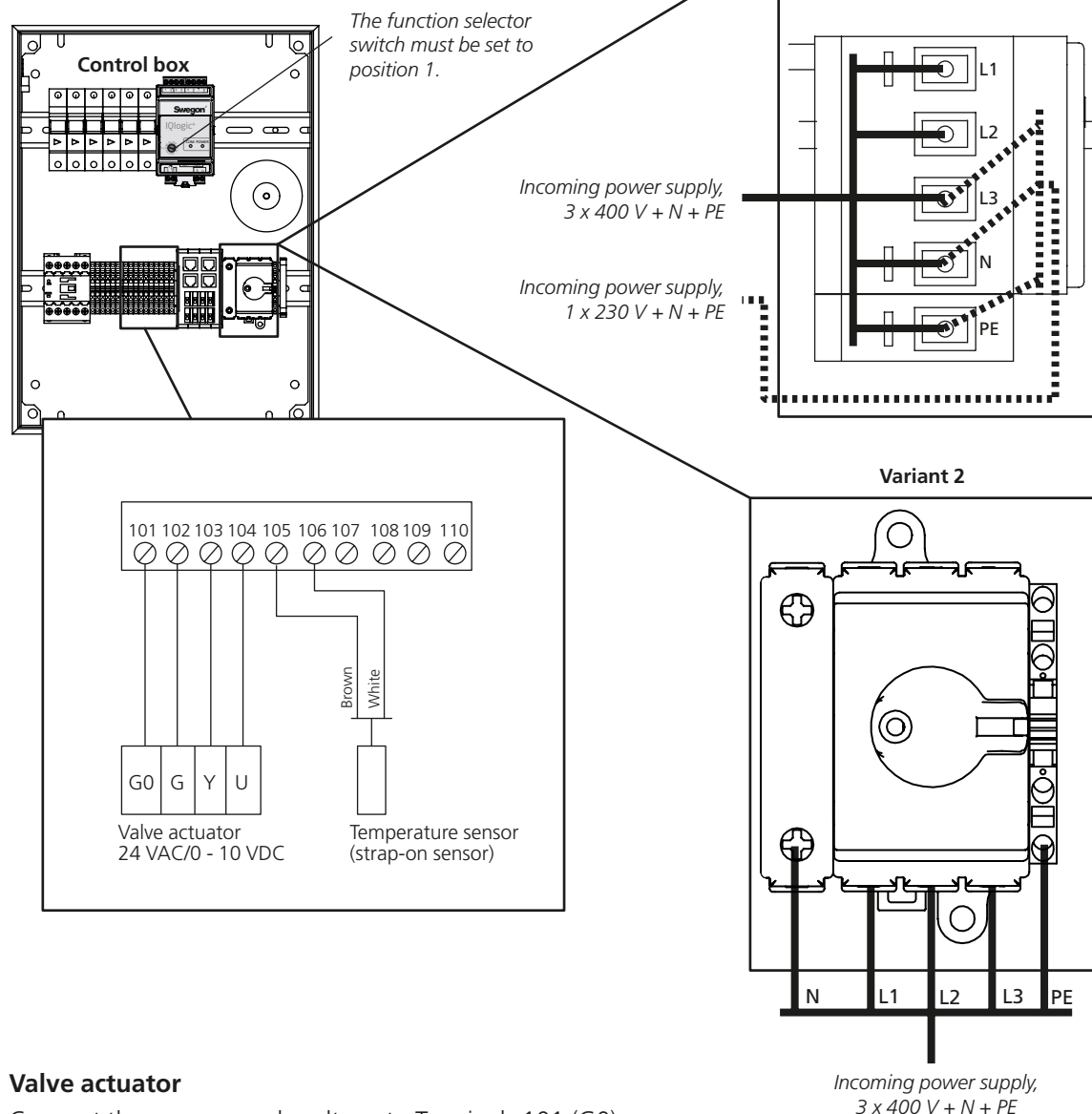
Fit a strap-on sensor for temperature measurement on the incoming water pipe of the extract air coil. Insulate the strap-on sensor against influence from the surroundings.

4. Technical data

Supply voltage	Variant 1 1x230 VAC or 3x400 VAC, +N +PE, 10 A Variant 2 3x400 VAC, +N +PE, 10 A
CE-approved to	EN 61000-6-2, EN 61000-6-3
Enclosure class	IP 65
Ambient temperature	-20 °C – +40 °C
at relative humidity	10 – 95%
IQlogic+ relay contacts	2 A/AC3, 5 A/AC1
Weight	7.7 kg
Dimensions (Width x Height x Depth)	300 x 400 x 120 mm
Fuse F1, power supply voltage	4-pin connector, 10 A, C characteristic
Fuse F2, control voltage	2-pin connector, 0.25 A, C characteristic
Transformer	230VAC/24VAC
Contactors, control voltage	24 VAC
Contactors, relay contacts	9A/AC3

5. Connections

5.1 Valve actuator and temperature sensor



Valve actuator

Connect the power supply voltage to Terminals 101 (G0) and 102 (G).
Connect the 0-10 V DC (Y) control signal conductor to Terminal 103.
Connect position indicator the 0-10 VDC (U), to Terminal 104.

Temperature sensor (strap-on type) for heated water

Connect to Terminal 105 (brown) and Terminal 106 (white).

Power supply

Variant 1

1 x 230 VAC +N +PE
alternatively
3 x 400 VAC +N +PE

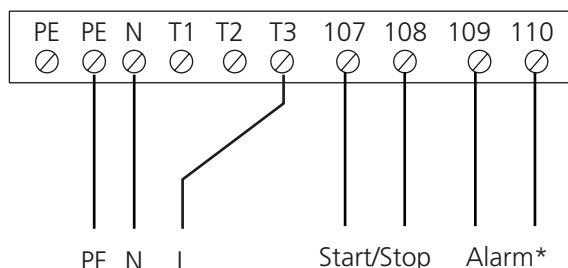
Variant 2

3 x 400 VAC +N +PE

5.2 Circulation pump

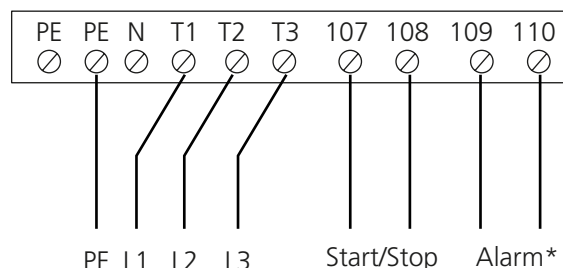
Circulation pump with external input for start/stop and alarm contact

1 x 230 VAC



* Select alarm with normally-open/normally-closed contact and fixed-speed controlled pump in the GOLD unit's hand-held micro terminal.

3 x 400 VAC

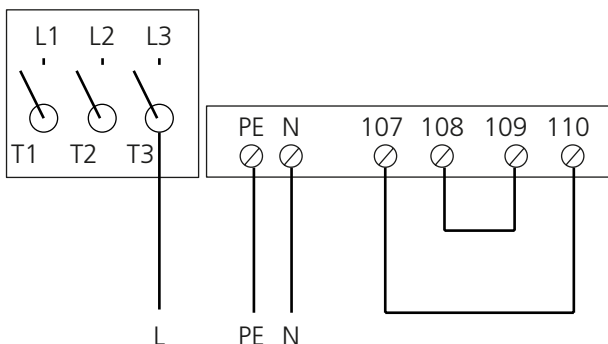


* Select alarm with normally-open/normally-closed contact and fixed-speed controlled pump in the GOLD unit's hand-held micro terminal.

Circulation pump without external input for start/stop and alarm function

1 x 230 VAC

Contactor K1

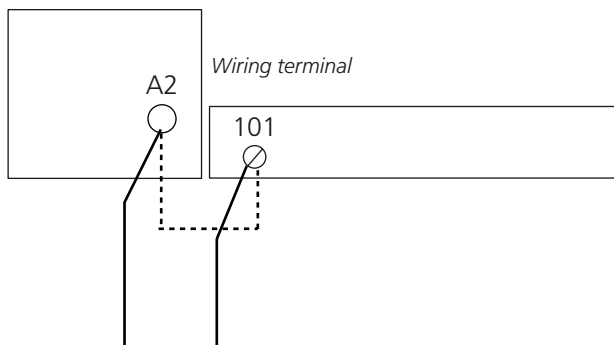


Fit a jumper from Terminal 107 to Terminal 110. Fit a jumper from Terminal 108 to Terminal 109.

Select appropriate contactor feedback and fixed-speed controlled pump in the GOLD unit's hand-held micro terminal.

Circulation pump with thermostatic contacts, if required

Contactor K1



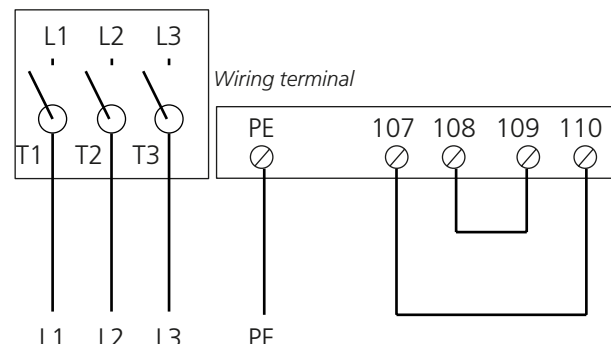
Connect the thermostatic contacts to Contactor A2 and Terminal 101.

Disconnect the jumper between Contactor A2 and Terminal 101.

Select appropriate contactor feedback and fixed-speed controlled pump in the GOLD unit's hand-held micro terminal.

3 x 400 VAC

Contactor K1



Fit a jumper from Terminal 107 to Terminal 110. Fit a jumper from Terminal 108 to Terminal 109.

Select appropriate contact feedback and fixed-speed controlled pump in the GOLD unit's hand-held micro terminal

5.3 Communication, cable adapters

Control box in combination with GOLD CX 100/120

Connect the RJ12-cable between the cable adapter and optional bus contact marked COM6 - 11 on the control circuit card of the GOLD unit.

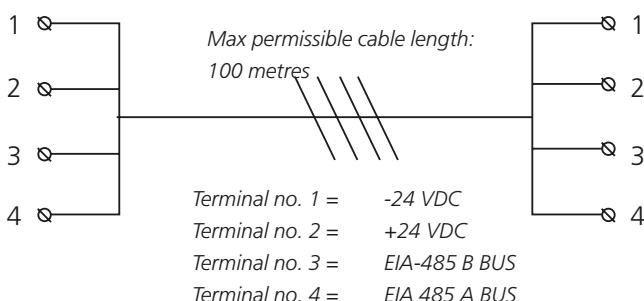
Control box in combination with GOLD SD

The illustrations show electrical equipment cubicles for size 20 GOLD SD units. The principle is however the same for all the unit sizes.

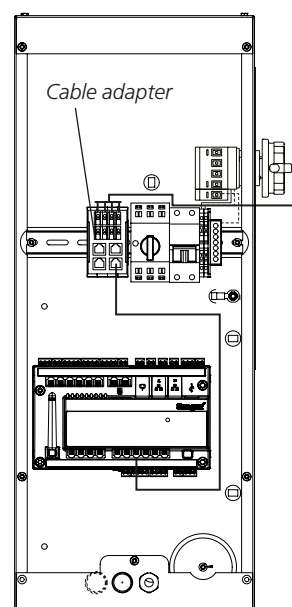
Always connect cables between cable adapters from terminal to terminal, see figure below.

The cable between units is not included in the supply.

Twisted-pair cables are recommended. Use one cable pair for 24 V and the other cable pair for bus communication.

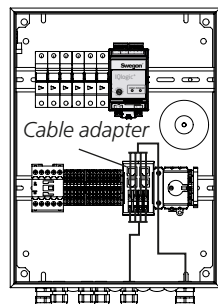


GOLD SD units with control unit (supply air)

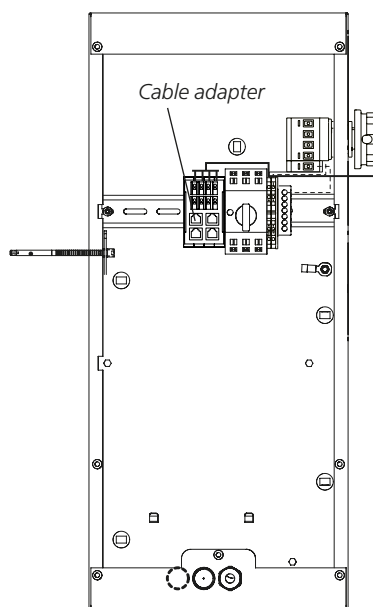


A

Control box, coil heat exchangers



GOLD SD units without control unit (extract air)



B

Twisted-pair communication cable A min. 4x0.5 mm² (Max total length communication cable A + B = 100 metres Not included in the delivery)

Twisted-pair communication cable B min. 4x0.5 mm² (Max total length communication cable A + B = 100 metres Not included in the delivery)

Communication cable B can also be connected to the cable adapter in the electrical equipment cubicle on the air handling unit with the control unit if this makes the installation work easier.