

Wirsbo CoSy

Electronic room temperature control

Room temperature control

Underfloor heating systems should be equipped with automatic room temperature control to switch off the heating when the room is heated by external or internal heat additions, e.g. solar radiation, lighting or heat-generating equipment. The automatic temperature control enables the floor heating system to be controlled according to the desired room temperature, regardless of the heat demand, the floor structure and floor covering.

Room thermostat

With the Wirsbo CoSy Room Thermostat the desired temperature can be set for each individual room or zone. A green LED, which can be seen from the left-hand side of the thermostat, lights up when the thermostat calls for heat. The thermostat has been adapted to all floor heating systems from Wirsbo and can control up to 5 floor heating loops. The thermostat should be mounted on an interior wall, 1.5 to 2 metres above the finished floor, and in a position where the effect of the sun, lighting or heat-generating equipment is as low as possible. In rooms where there may be splashing water the thermostat should be positioned as far from the water source as possible. The thermostats are connected to 24V.

Setting of room temperature.

The desired room temperature is set by turning the dial. The setting with the long thin line in the middle of the line marking on the front of the thermostat corresponds to a room temperature of approx. 21°C. The shorter lines on the dial indicate lower temperatures, and the longer lines higher temperatures. The temperature range on delivery is 6 - 30°C. The setting range can be limited mechanically by removing the dial and moving the pins for the max. and min. temperature to the desired position. This prevents the thermostat from being set to temperatures outside the desired range.

Wirsbo CoSy Room Thermostat (NSB)

The room thermostat is provided with a changeover switch for lowering the temperature, Art no. 804661. The thermostat can be connected so that the room temperature is lowered



Fig 1 Wirsbo CoSy electronic room temperature control

by approx. 4°C, either the whole time the switch is in the temperature lowering position, or according to the times indicated on the timer module in the transformer unit (see next page). This temperature set-back function is also available in the other models.

Wirsbo CoSy Room Thermostat with switch and external sensor

The thermostat, Art no. 804651, is supplied with an external sensor which can be set for max. or min. limitation of the floor temperature. The setting range is 20 - 45°C and the maximum or minimum limitation is selected with a changeover switch inside the thermostat. The maximum limitation can be used, for example, to prevent a wooden floor from being exposed to too high a temperature where there is a high heat demand. The minimum limitation may be used, for example, to keep a tile floor heated even when there is not generally any demand for a heat supply to the room. See separate assembly instructions for the external sensor.

Wirsbo CoSy Room Thermostat, Public

This thermostat, Art no. 80464, has no visible controls. All the settings are made inside the thermostat. The external sensor can also be used with this thermostat but is ordered separately.

Wirsbo CoSy Transformer Unit

The Wirsbo CoSy transformer unit, Art no. 80460, is a complete unit with a 230/24V transformer and terminal blocks for room thermostats and actuators. A maximum of 12 room thermostats and 12 actuators can be connected. The transformer unit is supplied with a cable and plug for simple connection to 230V. The transformer unit can be equipped with a pump relay, which stops the pump when none of the thermostats is calling for heat and/or with a timer module for timed temperature set-back (see accessories).

Accessories

Wirsbo CoSy Wall frame for room thermostat

The wall frame is used when the room thermostat is fitted to an electric distribution box. Art no. 80467.

Wirsbo CoSy External temperature sensor, 3 metres

Accessory for Wirsbo CoSy Room Thermostat, Public. Art no 80463.

Wirsbo CoSy Timer Module for transformer unit

The timer module is supplied with an adapted cover for the transformer unit, which means that the programming buttons are accessible. The time control is provided on two separate channels, with up to four temperature lowering periods/each

day of the week. One channel controls all the room thermostats connected in the upper half of the transformer unit, the other controls those connected in the lower half. Art no. 80462.

Wirsbo CoSy Pump Relay, 24V

The pump relay is installed in the transformer unit. When none of the actuators is activated the pump is stopped. For 230V AC pump, max. 5A (occasionally 8A). Art no. 80461.

Technical specifications

Room Thermostat

Dimensions: 70 x 70 x 22.5 mm
Colour: RAL 9010
Temperature range: 6 - 30°C (adjustable)
Precision: +/- 1°C
Rated voltage: 24 VAC (50/60 Hz)
Tolerance range: 19 - 30 VAC
Max load: 2.5A
Max load for thermal precision: 2.0A
Protection class: IP 20

Wirsbo CoSy Transformer unit for 12 loops, 230/24V

Dimensions: 313.5 x 110 x 59.5 mm
Colour: RAL 9010
Voltage: 230 VAC/24 VAC 50 Hz
Capacity: 50 VA
Protection class: IP 30
Fuse: T 200 mA

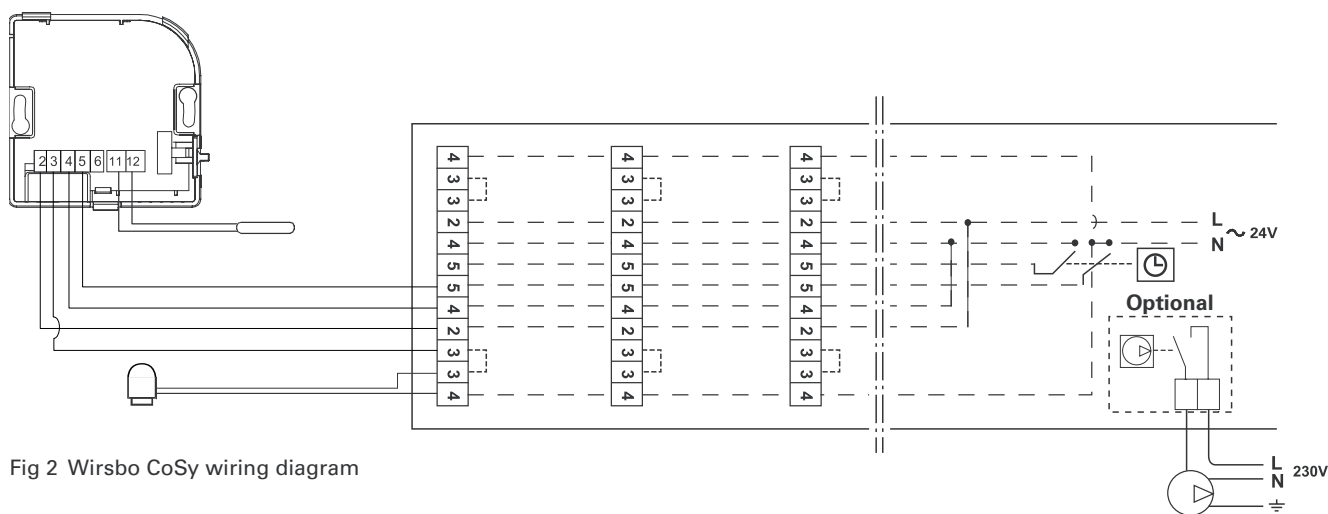


Fig 2 Wirsbo CoSy wiring diagram