# *EB-Therm 50*

E 85 816 81 / SSTL 35 304 72

MONTERINGSANVISNING / INSTALLATION INSTRUCTIONS
MANUAL DE INSTALACIÓN / MANUEL D'INSTALLATION
ASSENNUSOHJEET / INSTRUKCJA MONTAZU I OBSLUGI

EBECO)))

fig 1

a)

b)

c)

EBECO

fig 2

a) 230/240 VAC

L   N

d) PE

b)   c)

fig 3

18mm

fig 4

IP21   66 210 06
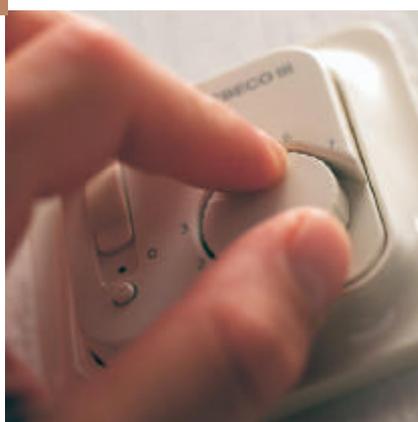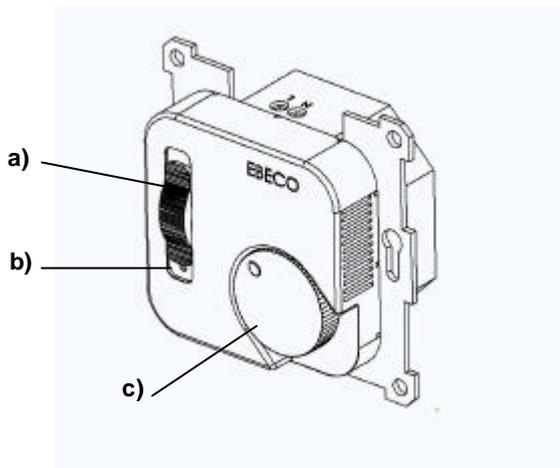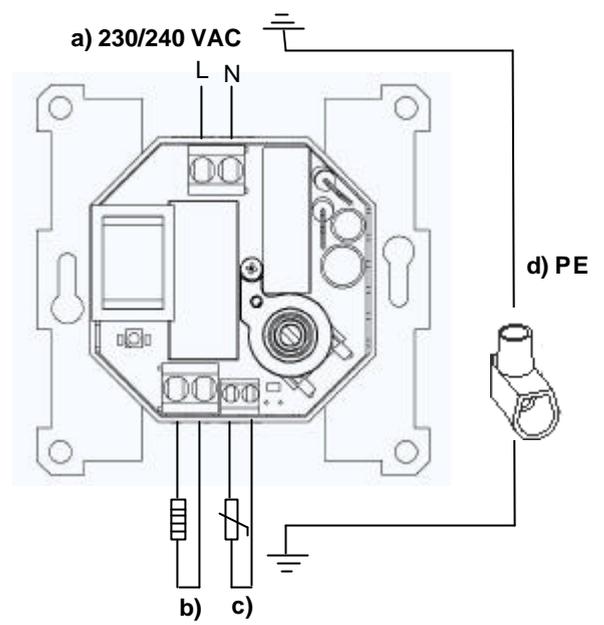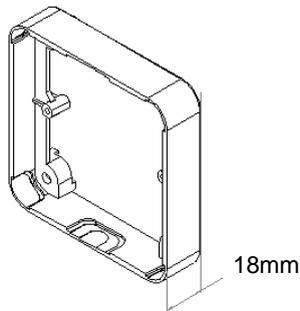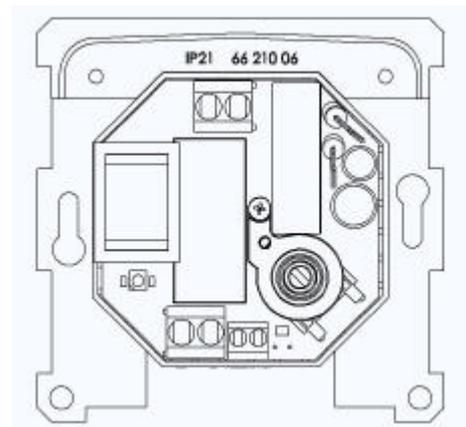
Golvgivare/Floor sensor (NTC)	
Temp (°C)	Value (kOhm)
10°C	19,9 kOhm
15°C	15,7 kOhm
20°C	12,5 kOhm
25°C	10,0 kOhm
30°C	8,0 kOhm

Description EB-Therm 50 D

EB-Therm 50 is an electronic thermostat with a separate floor sensor, developed for optimal regulation of underfloor heating systems. EB-Therm 50 is supplied with a front cover and frame suitable for the Eljo Trend wall box system. An extra front cover suitable for Elko RS is also included. EB-Therm is approved for installation in wet rooms, SEMKO-certified and CE-marked. The thermostat is designed for flush or surface mounting. The front panel is fitted with a double-pole switch (Fig 1a) and a dual-function LED (Fig 1b). The temperature setting can be locked on the underside of the knob (Fig 1c). The thermostat has built-in fault monitoring of floor sensors. If the floor sensor is damaged or goes open-circuit, the thermostat contact opens and the LED starts to flash (twice a second). The floor sensor can be replaced.

Installation

Flush mounting EB-Therm mounts in a standard 65 mm wall box. The location should be chosen so that the thermostat is protected from direct sunlight and draughts. The sensor must be installed in a protective tube in the floor. The end of the tube must be sealed.

1. Make sure that the wall box is flush with the wall.
2. Remove the setting knob. Loosen the screw. Remove the front cover and the frame.
3. Connect the 230 VAC electric power supply (Fig 2a), the load (Fig 2b) and the sensor cable (Fig 2c). If the sensor cable needs to be extended, heavy-current cable must be used. The protective earth (PE) (Fig 2d) is connected past the thermostat via a terminal block.
4. Place the thermostat in the wall box and secure it with the screws provided.
5. Refit the frame, front cover and setting knob.

Mounting with extension frame Extension frame E 85 816 68, see Fig 3.
1. Fix the extension frame to the wall with screws.
2. Install the thermostat as described above.

Wet room installation Use the IP 21 rated gasket E 66 210 06 as shown in Fig 4.

Setting

EB-Therm 50 has a separate temperature sensor which is located in the floor. The thermostat regulates the floor temperature by means of the floor sensor. The floor/room temperature is set with the temperature setting knob as shown in Fig 1c. Normal setting is between 3 and 4.

After a few days, when the temperature has stabilized, it may be advisable to adjust the thermostat setting. After the final calibration, the room temperature setting can be locked by moving the two pins under the setting knob.

Technical data - EB-Therm 50		EB-Therm 50 with accessories		
Voltage	230 V AC±10% 50 Hz	**Art. no.**	**Article**	**Dimensions (mm)**
Floor temperature range	+5 °C to +45 °C	E 85 816 81	EB-Therm 50	81x81x40
Load relay	250 V 12 A 2700 W	E 85 816 68	Extension frame	81x81x18
Main switch	double-pole	E 85 816 71	Sensor cable 3 m[1]*	
Load	power factor = 0.3 max	66 210 27	Front cover for Eljo trend*	
Hysteresis	±0.5 degC	66 210 30	Front cover for Eljo RS*	
Ambient temperature	0 °C to +60 °C	66 210 06	IP21 gasket*	
Housing	IP21	66 210 54	Frame for Eljo trend*	
Colour	Polar white	66 210 56	Frame for Strömfors*	
<u>Indication</u>		14 408 80	Connection clip*	
230 V supply connected	Green LED			
Heating cable operating	Red LED	[1] Max length of sensor cable – 50 m, 2x1.5mm^2		
Suitable for Eljo Trend, Elko RS, Strömfors and Merten frame systems		* Included in the packing		
EMC certified. Withstands a surge of 2500 VAC.				