

Roth Touchline® BL

Wired control system for underfloor heating system

The Roth Touchline® BL system is used for individual control and adjustment of the room temperature with underfloor heating systems.

A Roth Touchline® BL system consists a 6 or 12-channel control unit wired to the thermostats. These are available without display in a standard version, or a version with a floor sensor (multi-thermostat). A display version is also available.

Technical description

Roth Touchline® BL is a wired, 24-volt system designed for underfloor heating systems. It has been developed to be suitable for all Roth shunt/mixers and distributor systems.

The system has a wide range of features that makes it quick and easy to install, while ensuring perfect yet economical comfort for user and long service life for the pump, valves and actuators.

The standard version and the multi version room thermostats are both in white RAL 9016.

The standard and multi thermostat come equipped with an LED behind the front which lights up when there is heat demand.

The rotary knob is used to set the temperature.

The multi-thermostat comes complete with a floor sensor and sensor option for determining a maximum floor temperature or a minimum comfortable floor temperature.

On the display version of the room thermostat, the current temperature is clearly shown on the display and the temperature is easily changed using the haptic buttons. The menu button gives access to more advanced features. It is possible to limit the minimum and maximum allowed set-temperature, and the buttons can be locked to prevent unwanted use.

The control unit can be mounted on a standard 35 mm DIN rail or using ordinary screws.

An LED indicates whether there is heat demand on the individual channels and whether there is power to the control unit. The thermostats are connected by means of an ordinary 0.34 mm² wire with 4 conductors. The thermostats are connected automatically when the cable is connected. The control unit has a 230 V pump relay, and the pump is powered directly from the control unit. The control unit also has a relay for boiler control.

First start-up

The first time an underfloor heating system is started up, all actuators should be opened fully in order to ensure correct function, it is also important to vent all air out of the system, this is ensured automatically by the Roth Touchline® BL system when a power supply is connected, as a forced automatic heat demand is applied in the first 10 minutes after connection of the power supply.

Note: Roth Touchline® BL executes the first start-up sequence after all power outages.



Pump exercise

The Roth Touchline® BL system performs an automatic pump exercise for 10 seconds once every 14 days in order to extend the service life of the pump and ensure that the pump does not seize.

Valve and actuator exercise

Automatic valve and actuator exercise is performed every 14 days for 3.5 minutes at a time, in order to ensure long service life and guarantee valve and actuator function.

The multi-thermostat allows a minimum or maximum floor temperature to be set. The temperature is set behind the potentiometer cover. Maximum or minimum is selected by positioning a jumper. Removing the jumper behind the cover, connects the floor sensor and the multi-thermostat operates as a standard thermostat.

It is possible to purchase a timer so that zoned night reduction can be enabled.

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Thermostat error codes

-- is shown on display.
 Error in internal thermostat sensor. Thermostat must be replaced.

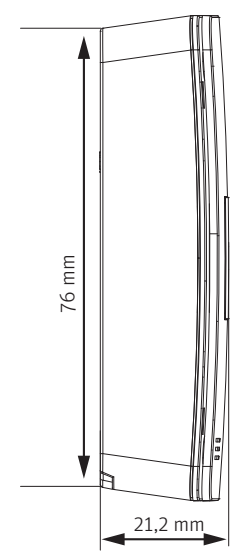
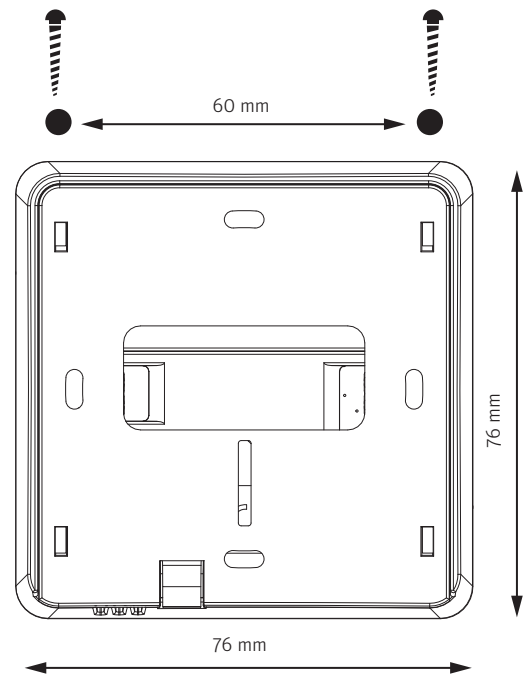
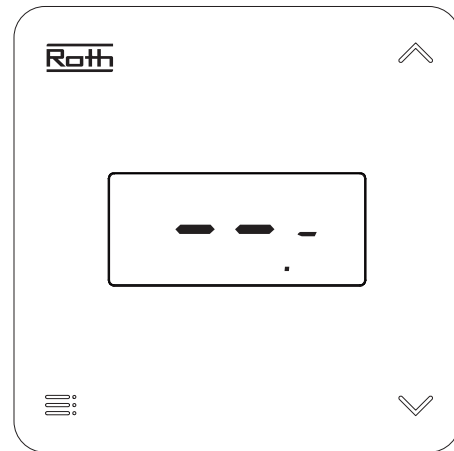
An emergency programme at 30% heat is run in the event of a thermostat error.

Operating times

- Pump exercise for 10 seconds every 14 days.
- Valve exercise for 3.5 minutes every 14 days.
- First start-up forced heat demand for 10 minutes.
- Pump over time active, 1 minute.
- Pump delay on heat demand 4 minutes.
- Dead zone between last heat demand and pump delay 1 minute.

Technical data

Application	Wired underfloor heating systems
Display room thermostat	
Roth Touchline® BL room thermostat, display white	HVAC no. 7466394120
Roth Touchline® BL room thermostat, display black	HVAC no. 7466394121
Voltage	24V
Temperature setting	5 - 35°C
Protection rating	IP 20
Max. cable length	30 m



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Thermostat error codes

LED flashes once.
Error in internal thermostat sensor. Thermostat must be replaced.

LED flashes twice.
External floor sensor at thermostat short-circuited or switched off.
Replace floor sensor or remove jumper in thermostat.

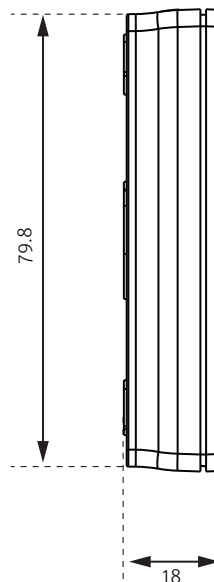
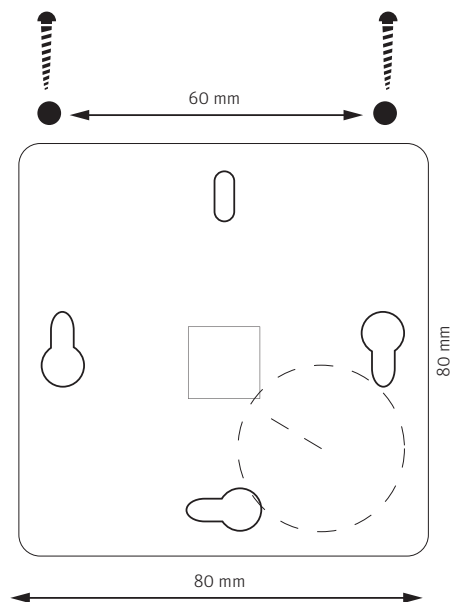
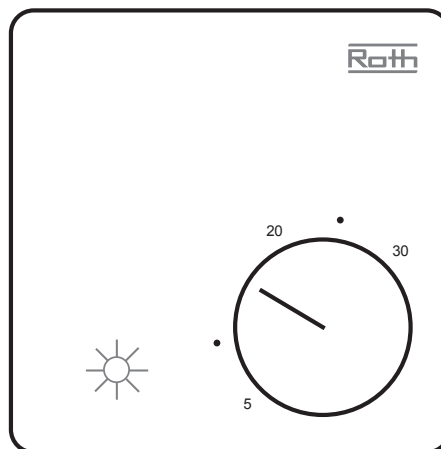
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Operating times

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Valve exercise for 3.5 minutes every 14 days.
First start-up forced heat demand for 10 minutes.
Pump over time active, 1 minute.
Pump delay on heat demand 4 minutes.
Dead zone between last heat demand and pump delay 1 minute.

Technical data

Application	Wired underfloor heating systems
Room thermostat	
Roth Touchline® BL room thermostat, standard	HVAC no. 7466394100
Voltage	24V
Temperature setting	5 - 30°C
Protection rating	IP 20
Max. cable length	30 m
Multi-thermostat	
Roth Touchline® BL room thermostat, multi	HVAC no. 7466394140
Voltage	24V
Temperature setting	5 - 30°C
Floor temperature restriction	18 - 45°
Factory setting	Max. 25°C
Max. temperature, wooden flooring	Follow the floor manufacturer's instructions
Recommended min. temperature, (e.g.) tiled flooring	25°C
Protection rating	IP 20
Floor sensor 3 m	NTC 12 kOhm 25°C
Max. cable length	30 m



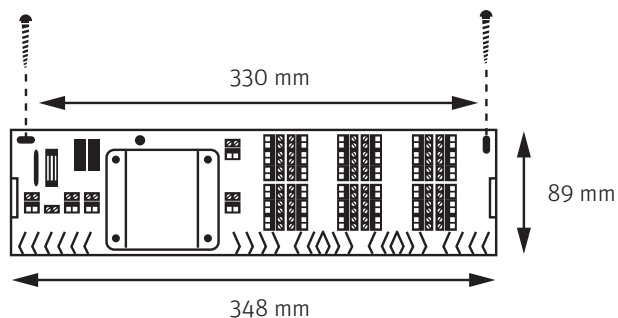
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Control unit

Roth Touchline® BL control unit, 6 channels	HVAC no. 7466394006
Roth Touchline® BL control unit, 12 channels	HVAC no. 7466394012
Voltage	230V AC ±10% 50/60 Hz
Maximum permitted fuse	13 A
Internal fuse type	0217.400 0.4 AF
Output voltage	24V AC
Boiler output (zero potential)	230V AC/Max. 2 A
External pump output	230V AC/Max. 2 A
Storage temperature	-20/+60°C
Operating temperature	0/+50°C
Timer signal	(2) 24 V AC
Transient voltage	4 kV
Standby consumption	2.6W
Protection rating	IP 21
Actuator type	24V NC
Max. actuators, 6 channels:	12 x 1W
Max. actuators, 12 channels:	18 x 1W
Max. actuators per channel:	5 x 1W
Night reduction	4°C from setpoint
Mains cable	2 m Schuko

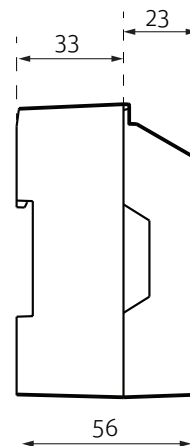
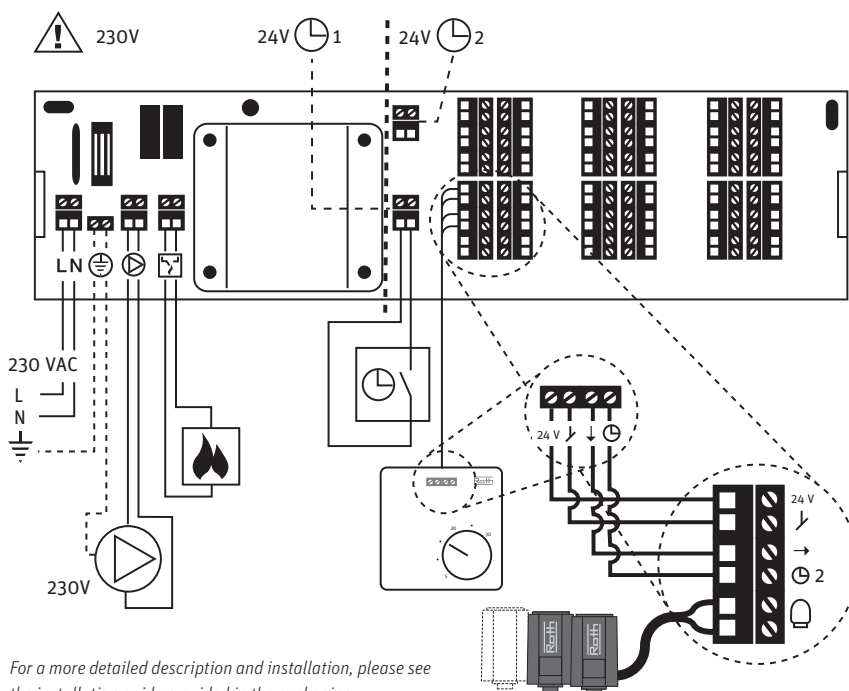
Accessories

Roth actuator	HVAC no. 7466275425
Roth Touchline® BL floor sensor 3 m NTC 12 kOhm 25°C	HVAC no. 70J1000001
Cable 100 m 4 x 0.34 mm²	HVAC no. 70J1000003
Fuse, littlefuse type 0217.400 0,4 AF	HVAC no. 70J1000000
Connection timer for night reduction	HVAC no. 70J1000002
Roth ShuntUnit, 1 - 8 circuits	HVAC no. 74662121x0
Roth GV distributor unit, 1 - 12 circuits	HVAC no. 74019730xx
Roth Touchline® BL cover for room thermostat	HVAC no. 7466394910



Wiring must be connected in compliance with local electrical regulations.

Wiring diagram



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For a more detailed description and installation, please see the installation guide provided in the packaging.