

Roth Touchline® SL control system

Wireless control system - Underfloor heating in 4 rooms

Advanced wireless control system for underfloor heating, cooling and radiators with built-in internet connectivity and the use of Roth Touchline® SL app.

The Roth Touchline® SL control system is used for individual control and regulation of the room temperature in buildings with underfloor heating/cooling systems where an advanced system is needed. The control system also offers the possibility to control radiators using Wireless Radiator actuators.

The Roth Touchline® SL Controller 4 ch, WiFi is a stand-alone controller meaning it's for smaller installations and can not be connected to extension modules for more channels. The controller can be used for regulation of floor heating in up to 4 rooms. In addition to this 4 rooms with radiators can be controlled using Roth Touchline® SL Wireless Radiator actuators.

The Touchline® SL system also offers accessories such as various Roth Touchline® SL Room Thermostats, the Roth Touchline® SL Room Sensor Mini, and the Roth Touchline® SL Wireless Window contact.

The Roth Touchline® SL Controllers have a display panel which is used when pairing the thermostats. At the same time, it provides a good overview of installed thermostats/sensors with associated temperatures, and the signal strength can be easily read for each thermostat/sensor, and correct positioning is easily done. The thermostats are available in variants both with and without touch buttons.

Also available:

- > 2 variants of Roth Touchline® SL temperature sensors. Both are controlled via the controller display or the app.
- > 2 Roth Touchline® SL Smart accessories which make the system even more applicable:
- > Roth Touchline® SL Wireless Radiator valve actuator offers the possibility of controlling radiators. Up to 6 actuators can be connected to each zone.
- > Roth Touchline® SL Wireless window contact ensures that the heat source will be set in ECO mode when the window is opened to reduce waste of energy. Up to 6 contacts can be connected to each zone.

Roth Touchline® SL room thermostats

Roth Touchline® SL Standard room thermostat

The thermostat comes in white and black with an LCD display protected by a transparent polycarbonate plate. The power supply is 2 x AAA 1.5V batteries. The temperature is easily set with the two touch buttons (< / >) and the menu button (□) gives you access to more advanced settings.

This thermostat can also be connected with a wired sensor for controlling the floor temperature. The thermostat is also equipped with a humidity sensor to monitor the humidity in the room which is important when you run your installation in cooling mode.

Roth Touchline® SL Plus room thermostat

The thermostat comes in white with a large temporary backlit LCD display with, protected by a transparent polycarbonate plate. The power supply is 2 x AAA 1.5V batteries. The temperature is easily set with the two touch buttons (< / >) and the menu button (≡) gives you access to more advanced settings. The "back" button is used for returning from menus.

This thermostat can also be connected with a wired sensor for controlling the floor temperature. The thermostat is also equipped with a humidity sensor to monitor the humidity in the room.



Roth Touchline® SL control system

Roth Touchline® SL Thermostat X

The thermostat comes in both white and black with an LCD display. The power supply is 2 x AA 1.5V batteries. The temperature is easily set with the two buttons (▼/▲) and the menu button (⌘) gives you access to more advanced settings. This thermostat can also be connected with a wired sensor for controlling the floor temperature. The thermostat is also equipped with a humidity sensor to monitor the humidity in the room.

Room sensors

Roth Touchline® SL Room Sensor

The sensor comes in white without any buttons or display. The front is protected by a transparent polycarbonate plate. The power supply is 2 x AAA 1.5V batteries. The sensor measures the actual temperature in the room, and temperature and settings can only be read/changed on the display of the controller or via the app.

Roth Touchline® SL Room Sensor Mini

The sensor comes in white without any buttons or display. The front is glossy white. The power supply is 1 x 2032 button cell. The sensor measures the actual temperature in the room, and temperature and settings can only be read/changed on the display of the controller or via the app. This sensor comes with a humidity sensor.

Accessories

Roth Touchline® SL Radiator actuator

The wireless radiator actuator comes in glossy white with an outside pairing button and LED indicator. The power supply is 2 x AAA 1.5V batteries. The actuator ensures accurate and quiet operation of radiator heating control. Connection to valve-nut with M30x1,5 screw thread. Adaptors for several other type of valves available (Danfoss RAN and RTDN adaptors in set).

Roth Touchline® SL Wireless window contact

The wireless window contact comes in glossy white in a contemporary, compact, and discreet design. It has an inside pairing button and LED indicator. The power supply is 1 x 3,6V type ER14250 lithium battery. The contact signals an open window/door to ensure a minimum of heat loss when connected to a zone.

Roth Touchline® SL Controller

The Roth Touchline® SL Controller 4 ch, WiFi is available with 4 channels. The controller can be mounted directly on the wall, or by using a 35 mm DIN rail (included). The controller has a potential-free relay for e.g. boiler control, an output for pump with 230V voltage, as well as in/output for e.g., heat sources. The controller has built-in wifi and can be used with the Roth Touchline® SL app. The following information can be read on the controller's display per channel:

- > Weekday and time
- > Current and desired temperature (room and floor)
- > Outdoor temperature (if sensor installed)
- > System mode (on/off, Normal, Holiday, Comfort, ECO, schedule)
- > Signal strength per thermostat/sensor
- > Battery level per thermostat/sensor
- > Connected Smart accessories per zone
- > Pump output status (on/off)
- > Status relay (on/off)
- > Connected accessories
- > Alarm in case of lost connection

The control panel provides access to basic settings for the system, and with a code also for the advanced settings.

First start-up

When first starting up an underfloor heating system, all actuators should be fully opened to ensure proper operation. It is also important to get all air flushed out of the system.

Pump motion

To extend the life of the pump and ensure that the pump does not get stuck, the system automatically performs pump exercise every 10 days for 5 minutes.

Valve motion

Long life and securing of valves, and the function of the actuators are ensured by the automatic valve and actuator exercises which are performed every 10 days for 5 minutes.

Sections of functionality

- > Up to 30 m indoor range
- > Built-in Roth Touchline® SL WiFi Internet module for internet connection
- > Frost protection in case of lost connection to thermostats
- > Locking the thermostat for public use
- > On/Off regulation
- > OPTIMUM Start, adaptive regulation
- > Can be used for underfloor heating/and cooling
- > Can be used for radiator installations
- > Control of pump, boiler or other heat sources
- > Intuitive operation of display thermostats

Roth Touchline® SL control system

Roth Touchline® SL Controller 4 ch, WiFi, 230V

Supply voltage
Energy consumption
Number of outputs and voltage
Max. sustained load

HVAC no. 7466397074
230V AC
6 W
6 (NC/NO), 230V AC
Max. 12 actuators (0.3A)
(4 actuators in output 1 and 2, and 2 actuators in output 3 and 4.

Wireless channels floor heating
Wireless channels radiator actuators

Protection class I
Transmission frequency
Range (up to)

4 thermostat/sensors
4 thermostat/sensors
(max. 6 actuators per zone)
6 window contacts (per zone) (EN60730)
868 MHz
30 m (in ordinary building)

Max. load pump relay
Max. load potential-free relay
Power supply cable
Ambient temperature
Ambient humidity
Storage/transport temperature
Degree of protection
Fuse glass fuse
Approvals

230V and 0.5 A
1A
85 cm
5 - 50°C
< 80% RH
-20 - +50°C
IP20 (EN60529)
WT 3.15A (5 x 20 mm)
CE 2014/53/EU

Roth Touchline® SL Thermostat, X (white) Roth Touchline® SL Thermostat, X (black)

Supply voltage Thermostat X:
Battery life Thermostat X:

HVAC no. 7466397170
HVAC no. 7466397171
2 pcs. AA 1.5V
4 years

Roth Touchline® SL Standard room thermostat (white) Roth Touchline® SL Standard room thermostat (black)

Roth Touchline® SL Plus room thermostat

Supply voltage
Battery life

HVAC no. 7466397180

HVAC no. 7466397181
HVAC no. 7466397190
2 pcs. AAA 1.5V
> 2 years (floor sensor)
> 4 years)

Below thermostat data is identical for all thermostat

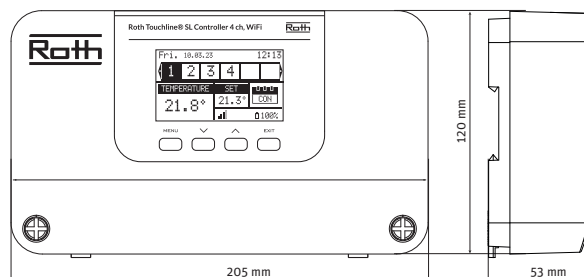
Power consumption standby
Room temperature, setting range
Comfort floor temperature, setting range
Floor temperature, max. setting range
External floor sensor

~ 50uA
+5 - + 30°C
+15 - + 30°C
+26 - + 35°C
NTC 10k B = 3435K (2,5 m)

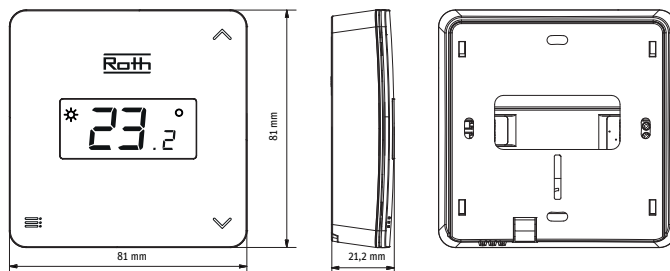
Accuracy (resolution)
Time constant (time delay)
Activation time (wake-up time)
Max. forced update time for data from control box

± 0.5 K.
Approx. 4 min.
< 2 sec.
10 sec.

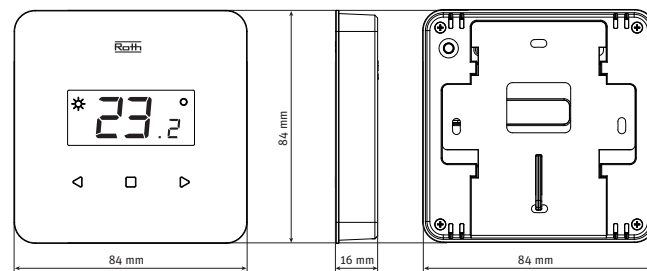
Roth Touchline® SL Controller 4 ch, WiFi



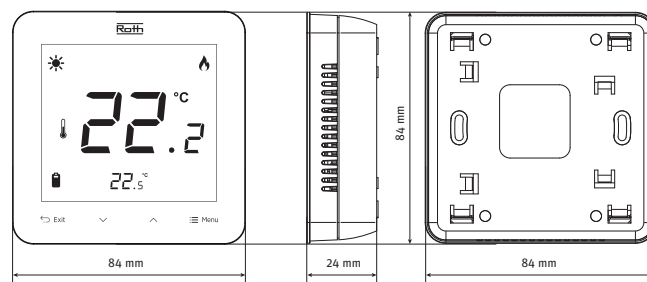
Roth Touchline® SL Thermostat X



Roth Touchline® SL Standard room thermostat



Roth Touchline® SL Plus room thermostat



Standby display without operation
Standby by program. at user level
Transmission frequency
Range up to

Ambient temperature
Ambient humidity
Degree of protection
Approvals

Max. 5 sec.
3.5 sec.
868 MHz
30 m (ordinary building)
0 - 55°C
Max. 80% RF
IP20 (EN60529)
CE 2014/53/EU

Roth Touchline® SL control system

Roth Touchline® SL Radiator Actuator
Roth Touchline® SL Window Sensor

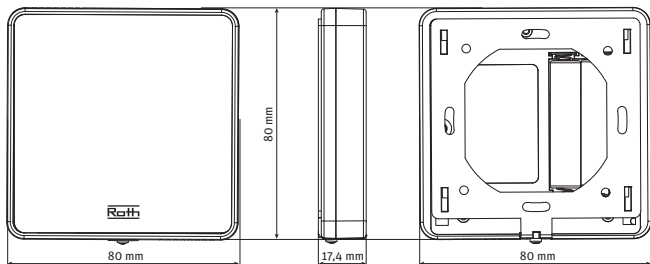
HVAC no. 7466397450
 HVAC no. 7466397600

Accessories

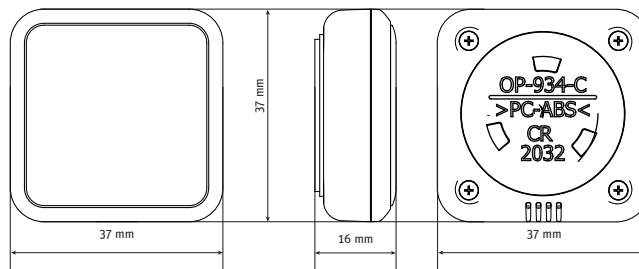
Roth Actuator 230V 1 Watt NC
 Roth Touchline® SL Antenna
 Roth Touchline® SL Repeater
 Roth Cable Sensor for thermostats

HVAC no. 7466275433
 HVAC no. 7466397305
 HVAC no. 7466397400
 HVAC no. 7466397525

Roth Touchline® SL Room Sensor



Roth Touchline® SL Room Sensor Mini



Connections on Roth Touchline® SL Controller 4 ch, WiFi

