

## TOUCHSCREEN THERMOSTAT



### DESCRIPTION

WiFi enabled programmable touchscreen thermostat for electrical underfloor heating. It combines app enabled remote control, ease of use and aesthetic design for maximum comfort from your underfloor heating.

### PRODUCT PROPERTIES

#### ATTRACTIVE DESIGN

- Full color TFT capacitive touchscreen display
- Flat front with full color capacitive touchscreen
- Unique nVent RAYCHEM look and feel
- Mountable as stand-alone thermostat or in simple or multiple gang switch gear frames

#### EASE OF USE

- Swipe and touch navigation
- Big icons in the central menu
- Scroll for list selection
- Wheels for temperature selection

#### 7 OPERATING MODES

- 3 economic programs
- 1 Constant mode
- 1 Flexible Boost (flexible and temporary override of economic or constant mode)
- 1 Holiday mode
- 1 OFF mode

#### FLEXIBLE

- Compatible with switch gear frames
- Compatible with a variety of floor sensors
- 3 Economic modes with flexible number of events per day

#### ENERGY EFFICIENT

- 3 economic programs to suit everyone's needs
- Smart and precise adaptive function
  - Calculates when to start heating to reach desired temperature when required
  - Adapts to the environment
  - Adapts to the floor construction
- Window open function
- Optimum heat management with 2 sensors (ambient & floor sensor)

#### WIRELESS

- WiFi 802.11 b/g/n

#### REMOTE CONTROL

- Homeowners can monitor, control, and program their nVent RAYCHEM SENZ WIFI thermostat via the free SENZ smartphone app (iOS and Android).

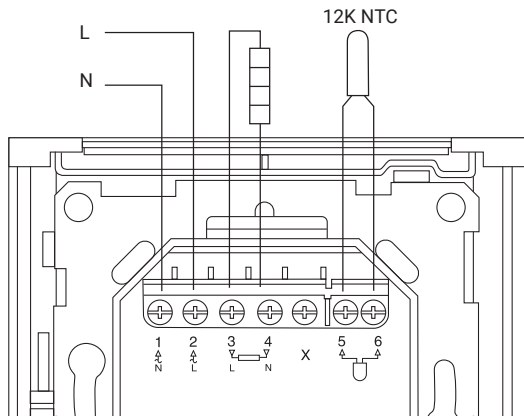
## TECHNICAL DATA

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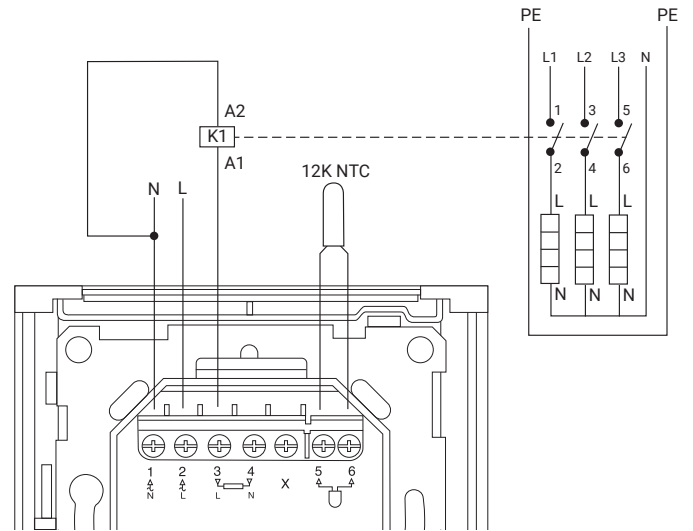
Supply voltage	230 VAC (+10%/-15%), 50Hz
Relay output	Heating cable 230 V, max 13A (max 10A of T2Red = 100m)
Temperature range floor sensor	5°C to +40°C
Temperature range room sensor	5°C to +40°C
Limitation of range	Low +5°C / High +40°C
Ambient temperature-operation	0 to 60°C
Ambient temperature-transport	-20°C to +70°C
Accuracy floor sensor	0.2°C in a range 0°C to + 40°C
Temperature control method	Pulse width modulation with Proportional integral control loop
Accuracy room sensor	0.2°C in a range 0°C to + 40°C
Control modes	Floor sensing Room sensing Room sensing with floor limiter No sensor
7 Operating modes	3 Fully programmable economic modes: <ul style="list-style-type: none"><li>- 1 to 7 events/day</li><li>- 7 days/week</li><li>- 1 temperature per event</li></ul> 1 Constant mode: <ul style="list-style-type: none"><li>- 1 set temperature</li></ul> 1 Flexible boost mode (temporary override of the programmable or constant modes) <ul style="list-style-type: none"><li>- Adjustable temperature</li><li>- Adjustable duration</li></ul> 1 Holiday mode <ul style="list-style-type: none"><li>- Programmable in advance</li><li>- Calendar based</li><li>- Adaptable temperature</li></ul> 1 OFF mode <ul style="list-style-type: none"><li>- Including frost protection option</li></ul>
Back-up for set values	Non-volatile memory
Back-up for time and date	Minimum 5 years of storage Minimum 10 years if powered 50% of the time
Protection class	IP21 Can be upgraded to IP44 using the accessory gasket (1244-017779 R-SENZ-ACC-IP44GASKET)
Wireless Standard	IEEE 802.11 b/g/n
Terminals	2,5 mm <sup>2</sup> Screw cage clamp
Floor sensor	12kΩ @ 25°C +/- 0.75°C (no:38165)
Max length of floor sensor	100m, 2 x 1.5 mm <sup>2</sup> (230 VAC cable)
Diameter sensor cable	4.5 mm
Diameter sensor tip	5 mm
Compatibility with other sensors	2, 10, 12, 15, 33 & 100kΩ sensors
Dimension with RAYCHEM frame	85.5 x 84.3 x 41.9 mm
Color Extra front	RAL9003
Approvals	CE, VDE

## WIRING DIAGRAM

Direct connection (single heating circuit)  
 Heater circuit < 13 Amps constant wattage cable or  
 Maximum 100 meter of T2Red



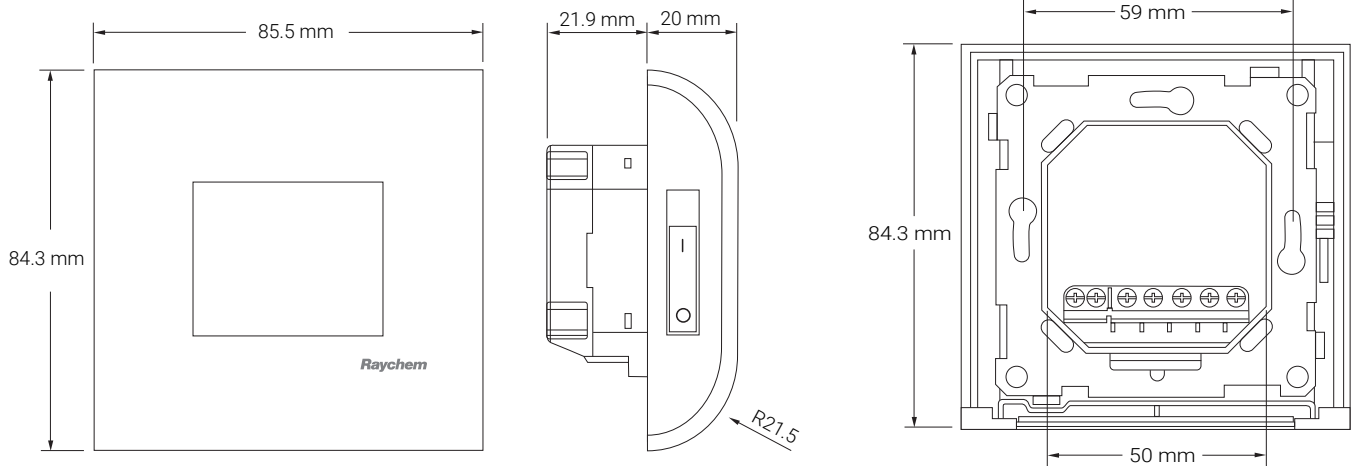
Connection via contactor (multiple heating circuits)  
 Total heating circuits > 13 Amps constant wattage cable or  
 exceeding 100 meter of T2Red



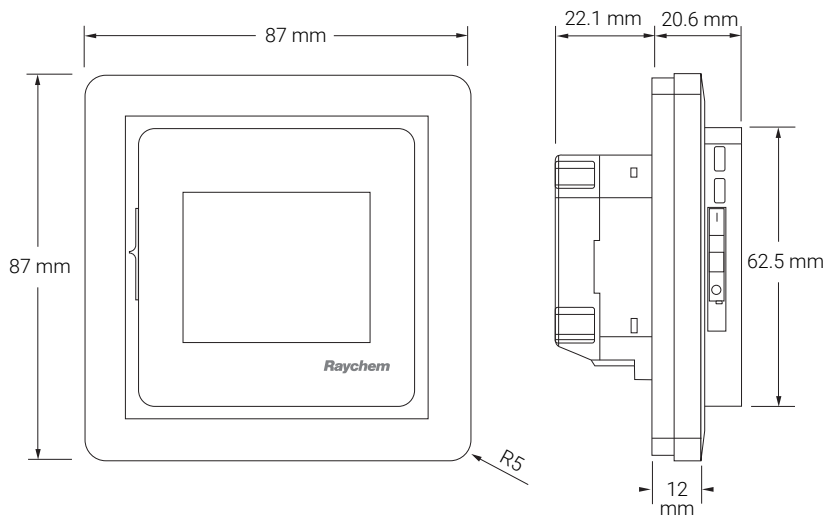
K1: contactor with integral suppression device

## DIMENSION DRAWINGS

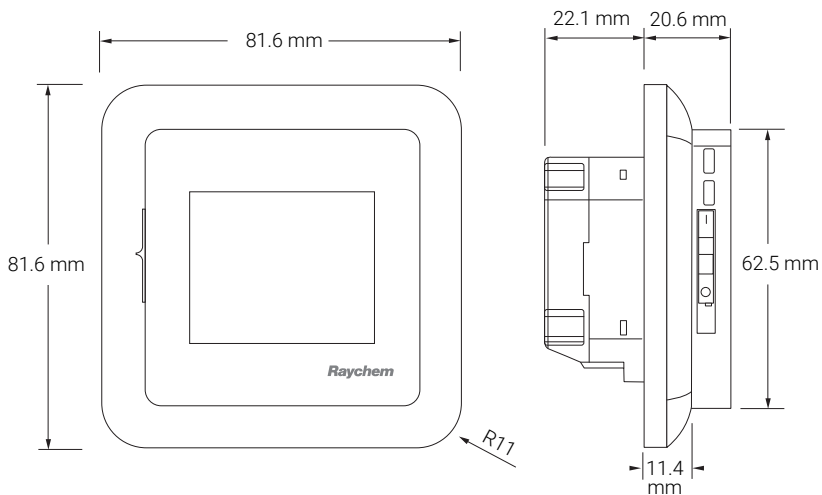
### DIMENSION DRAWINGS – RAYCHEM FRAME



### DIMENSION DRAWINGS – SQUARE FRAME



### DIMENSION DRAWINGS – ROUND FRAME



## ORDERING INFORMATION

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Thermostat	R-SENZ-WIFI	1244-017778
IP44 Gasket	R-SENZ-ACC-IP44GASKET	1244-017779
Silver colored front	R-SENZ-ACC-METALFRONT	1244-017780
Anthracite colored front	R-SENZ-ACC-ANTHRACITEFRONT	1244-017781
Spare sensor	U-ACC-PP-14-SENSOR-N10K*	1244-002952

\* If the 1244-002952 spare sensor is used, the configuration needs to be set to the 10kΩ in the sensor settings (Settings Menu / Settings / Advanced / Sensor Type)

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