

# **Raychem** NRG-DM INTUITIVE TIMER THERMOSTAT



## DESCRIPTION

Digital timer thermostat for electrical underfloor heating equipped with a large display and intuitive software for optimal ease of use.

## PRODUCT PROPERTIES

Intuitive wizard-based first time set-up of the thermostat

2 pole main power switch for maintenance purposes

Clear big Dot Matrix LCD display (100 x 64 pixels) with blue backlight

Energy savings thanks to the adaptive function. The thermostat calculates when it needs to start heating in order to reach the temperature at desired time of the weekly schedule.

Child lock to prevent accidental changes on the thermostat

Different display settings possible:

- See the set temperature or the actual temperature on the screen
- Show/hide time and date
- Reverse background
- Activate/deactivate the screen saver

Energy monitoring to visualize energy consumption over different periods of time

Temperature calibration possible to adjust to the specific floor construction of the room

Temperature scale to limit the thermostat to Min-Max temperatures in order to protect sensitive floors

Supported Software languages: English, German, Dutch, French, Russian, Lithuanian, Polish, Czech, Swedish, Finish, Norwegian

## NRG-DM INTUITIVE TIMER THERMOSTAT

### TECHNICAL DATA

Supply voltage	230 VAC +/- 10%, 50Hz
Relay output	Heating cable 230 V, max 13 A
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°C to 25°C
Ambient temperature-transport	-20°C to +70°C
Accuracy floor sensor	0.2°C in the range 0°C to +40°C
Accuracy room sensor	0.2°C in the range 0°C to +40°C
Temperature control method	PID
Control modes	Floor sensor Room sensor Room sensor with floor limiter No sensor
Clock function	1 to 6 events/day 7 days/week 1 temperature per event
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
Terminals	2,5 mm <sup>2</sup> Screw cage clamp
Floor sensor	12k @ 25°C +/- 0.75°C (no:38165)
Max length of floor sensor	100 m, 2 x 1,5 mm <sup>2</sup> (230 VAC cable)
Diameter sensor cable	4.5 mm max. (preferred < 3.5 mm)
Diameter sensor tip	5.0 mm , +/-0.1 mm
Dimensions with frame	84 X 84 X 40 mm
Color Round front	9010
Color Square front	9003
Color switch gear frame	9010
Approvals	CE, VDE

### SYSTEM INFORMATION

Raychem underfloor heating thermostats are used with

- T2QuickNet mats 90 W/m<sup>2</sup> and 160 W/m<sup>2</sup>
- T2Red – Self-regulating heating cable
- T2Blue 10 W/m<sup>2</sup> and 20 W/m<sup>2</sup> heating cable
- CeraPRO heating cable

COMPATIBILITY WITH LIGHT SWITCH GEAR FRAMES

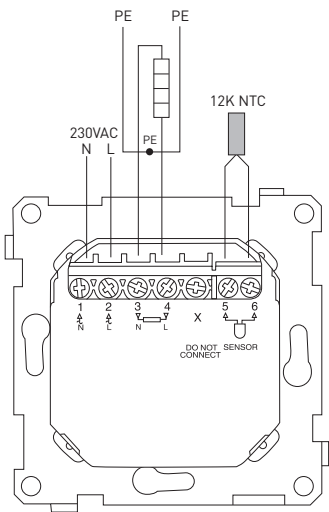
An extra square front plate for compatibility with Schneider Exxact frames is provided as standard



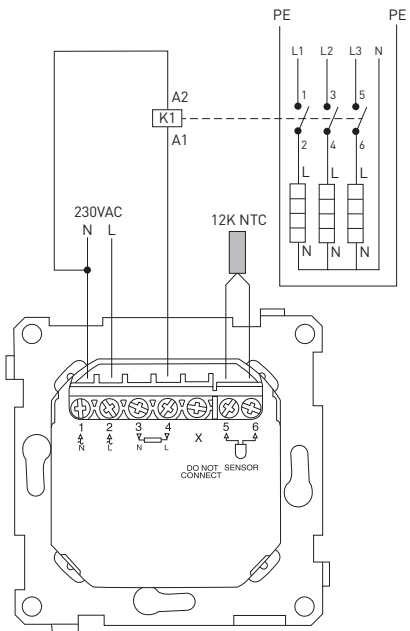
Switch manufacturer	Light switch product range
Busch-Jaeger	Reflex SI, Reflex SI linear
Berker	S.1, B.3
Eljo	Trend
Ensto	Jussi
Gira	Standard 55, Event, E2, Esprit 55,
Merten	Atelier, M1, 1-M, M-smart, M-ARC, M-Plan, M-Star
Jung	A-500, A Creation, AS 500, A-Plus,
Elko	RS16, Elko Plus
Clipsal	S2000, ST2000
Schneider	Exxact WDE 002501

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

ORDERING INFORMATION

R-NRG-DM	1244-015152
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ACCESSORIES

Sensor-N 10K spare floor sensor*	1244-002952
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\* if the spare sensor 1244-002952 is used, the sensor configuration needs to be set to NRG-Temp in the start-up wizard of the thermostat or in the Settings/Engineer settings/Sensor



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