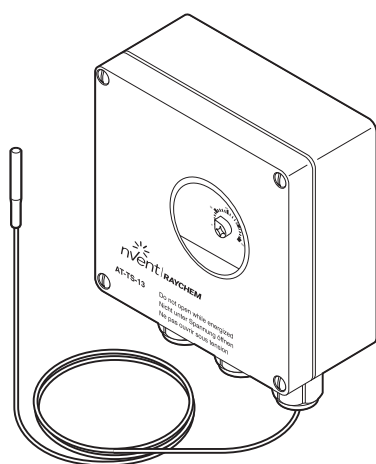


AT-TS-13 and AT-TS-14

CONNECT AND PROTECT

Surface sensing thermostat, electronic

PRODUCT OVERVIEW

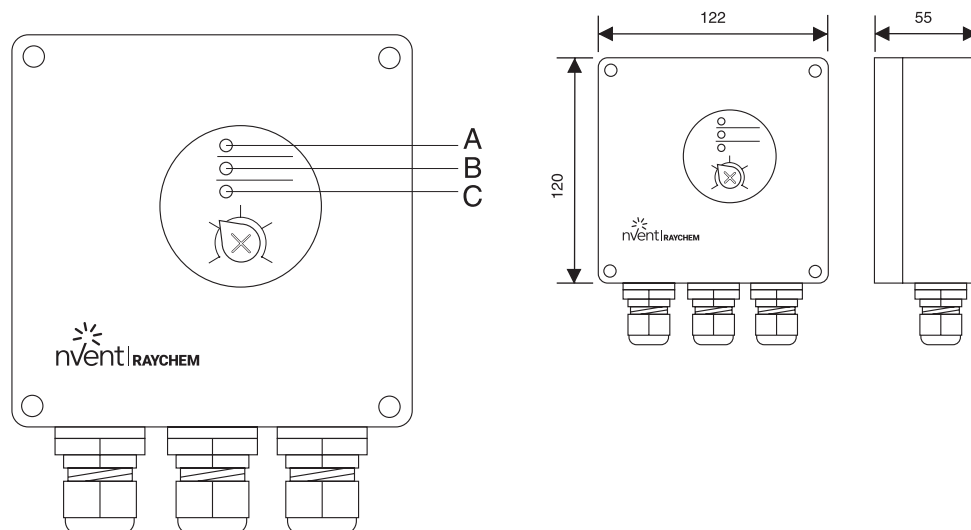


nVent RAYCHEM AT-TS thermostats provide temperature control in safe area. The temperature set point can be checked through a window in the lid. LED's are providing an indication when cables are energized (Heating ON) or when the temperature sensor is defect (sensor break or sensor short-circuit).

The temperature sensor has a length of 3 meter and can be shortened for ambient sensing operating. Direct connection of the heating cable is possible. Connection kits need to be ordered separately. The thermostat is available in 2 temperature ranges.

PRODUCT SPECIFICATIONS

Dimensions (in mm)



- A Green LED Heating cable on
- B Red LED Sensor break
- C Red LED Sensor short-circuit

Technical details

| | nVent RAYCHEM AT-TS-13 | nVent RAYCHEM AT-TS-14 |
|------------------------------|----------------------------------|---------------------------------|
| Supply voltage | 230 Vac +10% –15% 50/60 Hz | 230 Vac +10% –15% 50/60 Hz |
| Max. switching current | 16 A, 250 Vac | 16 A, 250 Vac |
| Max. conductor size | 2.5 mm ² | 2.5 mm ² |
| Switching differential | 0.6 K to 1 K | 0.6 K to 1 K |
| Switching accuracy | ± 1 K at 5°C (calibration point) | 2 K at 60°C (calibration point) |
| Switch type | SPST (normally open) | SPST (normally open) |
| Adjustable temperature range | –5°C to +15°C | 0°C to +120°C |

Housing

| | | |
|----------------------|---|--|
| Temperature setting | inside | inside |
| Exposure temperature | –20°C to +50°C | –20°C to +50°C |
| Ingress protection | IP65 according to EN 60529 | IP65 according to EN 60529 |
| Entries | 1 x M20 for supply cable (Ø 8-13 mm) 1 x M25 for heating element (Ø11-17 mm) 1 x M16 for the sensor | 1 x M20 for supply cable (Ø 8-13 mm) 1 x M25 for heating element (Ø 11-17 mm) 1 x M16 for the sensor |
| Material | ABS | ABS |
| Lid fixing | nickel-plated quick release screws | nickel-plated quick release screws |
| Mounting | SB-110 and SB-111 or surface mount | SB-110 and SB-111 or surface mount |

Temperature sensor

| | AT-TS-13 | AT-TS-14 |
|--|----------------|----------------|
| Type | PTC KTY 83-110 | PTC KTY 83-110 |
| Length sensor cable | 3 m | 3 m |
| Diameter sensor cable | 5.5 mm | 5.5 mm |
| Diameter sensor head | 6.5 mm | 6.5 mm |
| Sensor material | PVC | Silicone |
| Max. exposure temperature sensor cable | 80°C | 160°C |

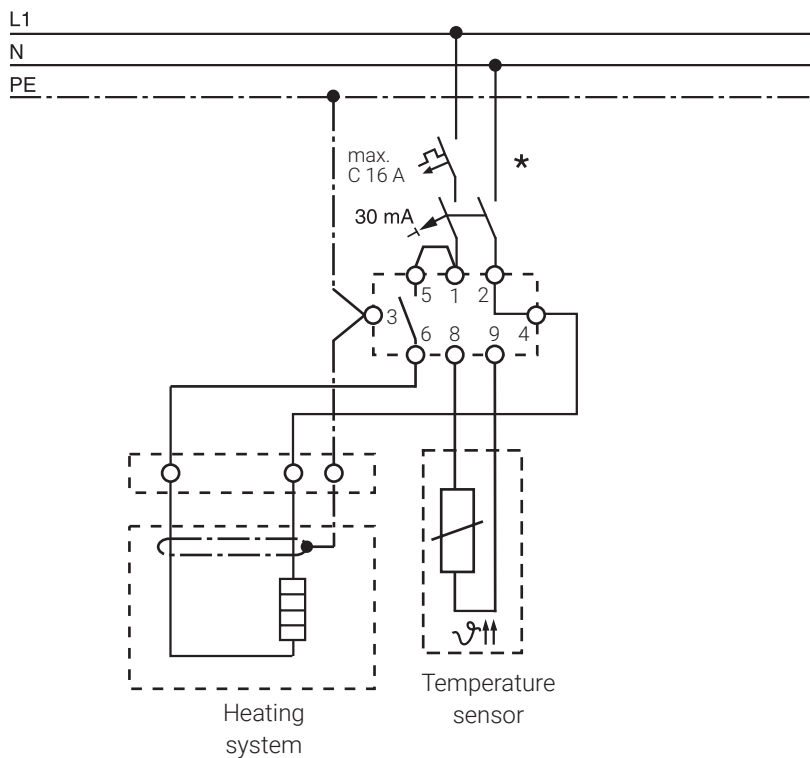
The sensor cable may be extended to a maximum of 100 m using a 2-conductor wire with a cross-section of 1.5 mm². The sensor cable should be shielded if it is laid in cable ducts or in the vicinity of high-voltage carrying cables. The shield of the extension cable should be grounded at the controller end only.

Output parameters

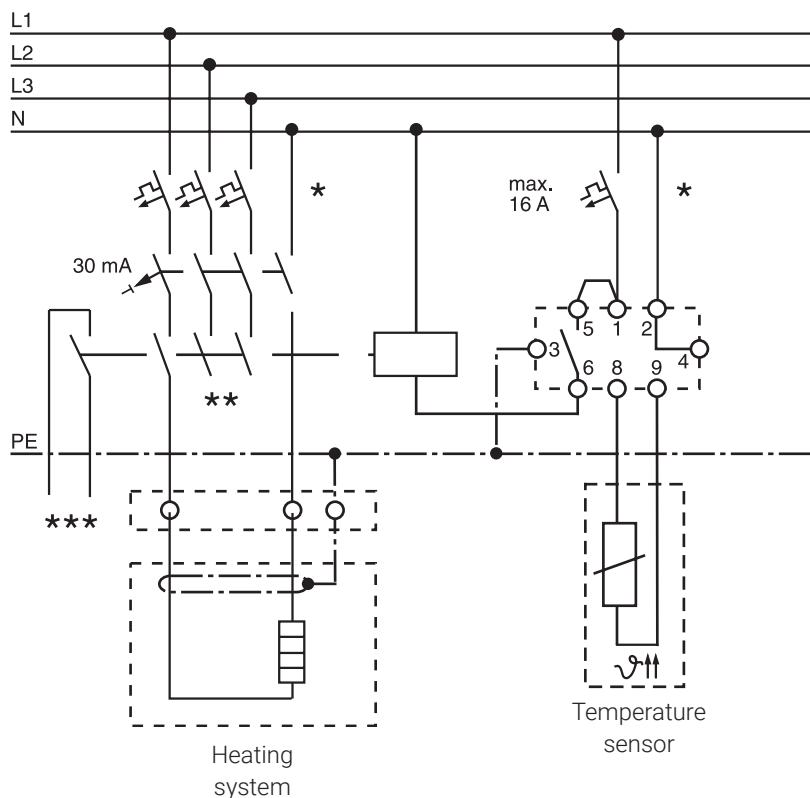
| | | |
|--------------|---|---|
| Alarm on LED | Green LED: Heating Cable ON Red LED: Sensor break Red Led: Sensor short-circuit | Green LED: Heating Cable ON Red LED: Sensor break Red Led: Sensor short-circuit |
|--------------|---|---|

Wiring diagram for thermostat

AT-TS-13 or AT-TS-14



AT-TS-13/14 with contactor



* Two- or four-pole electrical protection by circuit-breaker may be needed for local circumstances, standards and regulations

** Depending on the application, one- or three-pole circuit-breakers or contactors may be used

*** Optional: Potential-free circuit-breaker for connection to the BMS

APPROVALS

For use in ordinary area (indoors & outdoors)

Product certification



ORDERING INFORMATION

| | | |
|------------------|----------------------|----------------------|
| Part description | AT-TS-13 | AT-TS-14 |
| PN (Weight) | 728129-000 (0.44 kg) | 648945-000 (0.44 kg) |

Accessories

| | | |
|--------------------------|-----------------------------------|-------------------------|
| PA Reducer | Reducer M25 (M)/M20 (F) | Reducer M25 (M)/M20 (F) |
| PN | 184856-000 | 184856-000 |
| Spare temperature sensor | HARD-69 | HARD-69 |
| (AT-TS-13 and AT-TS-14) | (Max. exposure temperature 160°C) | |
| PN (Weight) | 133571-000 (180 g) | 133571-000 (180 g) |

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