# KRT-1L
# Remote setpoint unit with temperature sensor


**KRT-1L**

## Application

- Used in INTEGRAL RS controlled heating and air conditioning systems, for measurement of the room temperature and for remote setpoint adjustment.
- Holiday switch to extend the period in *Off* mode
- Mode selector switch for change of operating mode.

## Technical data

| | | |
|---|---|---|
| Adjustment range | | |
| Remote temperature setpoint adjuster | ± 4 K (in steps of 1K) | |
| Measuring range (T1) | – 50 ... 150 °C | |
| Sensor correction (T1) | ± 2.5 K (trimming potentiometer) | |
| Holiday switch | *Off* for 1, 2 or 3 days, with indicator | |
| Mode selector switch | I | On |
| | Aut | Auto |
| | o | Off |
| Connection: | | |
| T1 sensor | 2-wire, interchangeable | |
| Mode selector switch | 3-wire | |
| Max. cable length | 280 m | 2.5 mm² Cu |
| | 170 m | 1.5 mm² Cu |
| | 110 m | 1.0 mm² Cu |
| | (max 2 Ω per wire) | |
| Protection class | III (⏚) | |
| Protection standard | IP30 to IEC529, DIN40050 | |
| Ambient temperature: | | |
| Operation | 0 ... 50 °C | |
| Storage | – 30 ... 70 °C | |

## Principle of operation

The programmed setpoint can be modified by ± 4 K with the setpoint adjuster.

The holiday switch is used to switch the system off for 1, 2 or 3 days. The *Off* days programmed in this way take effect in addition to any normal *Off* periods, such as weekends, and apply from the current or next normal switch-off period. To use the holiday switch, the mode selector switch must be set to Aut.

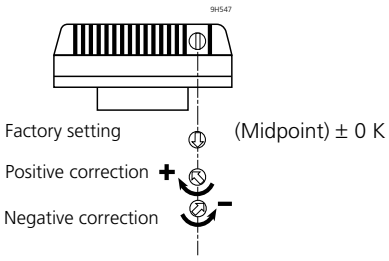
An LED indicates the selected *Off* period. This can be cancelled by selecting 1-2-3 in succession on the holiday switch. The LED will go out, and the *Off* period will be cancelled.

The mode selector switch can be used to switch the controller on or off regardless of the programme entered. When set to Aut, the controller switches on and off in accordance with the time programme entered.

The sensor is fitted with a silicon sensing element with a positive temperature coefficient, i.e. its resistance increases as the temperature rises.

An integrated trimming potentiometer at the bottom of the housing enables the temperature sensor (T1) to be corrected by ± 2.5 K. Access is through an aperture in the housing provided for this purpose.

## T1 sensor correction




## Construction

Multi-part plastic housing
(See sheet 1718 for description and dimensions).

## Mounting

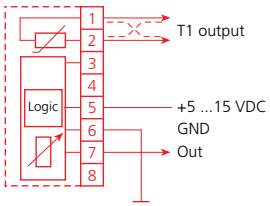
The room control unit should be mounted at a height of approximately 1.5 m above floor level. When the temperature sensor is connected, it should not be mounted near doors, windows or chimneys where it will be exposed to undue influence from heat and moisture or in locations with poor air circulation (corners, recesses etc.).

A frame is supplied as an accessory for surface mounting.

## Connection diagrams

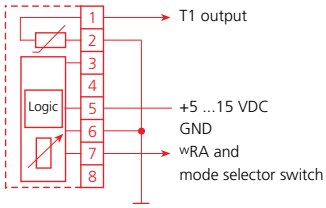
### Terminal layout

*1)* **KRT-1L** 92.00289



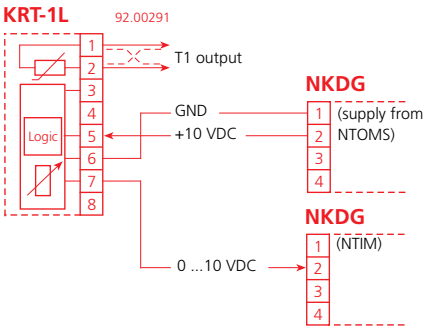

*1) Standard, 5-wire*

*2)* **KRT-1L** 92.00290

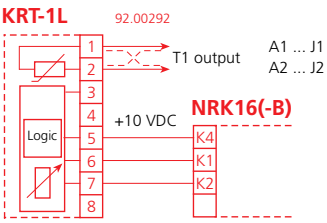



*2) Alternative, 4-wire*

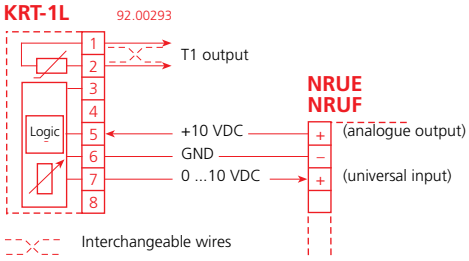
**INTEGRAL RSM** *(see Note 1)*




**INTEGRAL RSA** *(see Note 2)*




**INTEGRAL RSC** *(see Note 2)*




Note

1) Only one KRT-1L or 1 KRT-1B may be fitted per NTOM(S) output module carrier
   i.e. max. 1 KRT-1L for NRUA, NRUB
   max. 2 KRT-1L for NRUC, NRUD

2) Only one KRT-1L or KRT-1B may be fitted per RSA or RSC module

   *For KRT-1B specification, see catalogue sheet 1612.*

A separate order is required for the SAPIM macro used to process the switch functions.