

# Operating instructions for temperature control unit mod. NT15



## WARNINGS:

Read this manual in all its parts before proceeding with the installation and the power on of the equipment; keep this manual in a safe place ready for a quick consultation in case of necessity.  
All the operation described in this manual must be done by expert personnel.  
STEM S.r.l. have the right to change the contents of this manual without advice; new versions will replace the following.

## FEATURES:

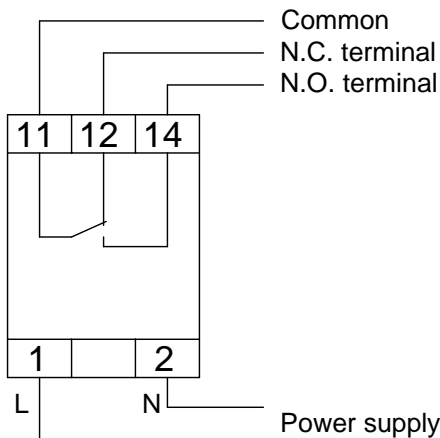
NT15 is an electronic device with supply voltage of 230 V ac, 50 or 60 Hz, with an output relay (1 change-over contact), especially designed to control the internal temperature of an electrical switchboard. The central unit is made by a glass reinforced Bayblend, suitable to be mounted on DIN rail 35 mm. The temperature probe is directly on the frontal panel; on the same there're also three signalling LEDs: the green one for the supply status and two red LEDs for the over-temperature and under-temperature conditions.  
On the NT15 it's also possible to set the upper and lower temperature limits by setting the relative dip-switches.  
The programmable temperature limits are:

Tmin: -10°C, -5°C, 0°C, +5°C, +10°C  
Tmax: +40°C, +45°C, +50°C, +55°C, +60°C

## TECHNICAL DATA

PARAMETER	VALUE	UNITS
Supply voltage	230 (50 o 60 Hz)	V AC
Output voltage	250	V AC
Maximum switching current	3 (3)	A
Maximum switching power	750	VA
Electrical life	300.000	nop
Mechanical life	30.000.000	nop
Operating temperature	-15 ... +65	°C
Storage temperature	-30 ... +80	°C
Outputs	11-12 (N.C.), 11-14 (N.O.)	
Connections	Screw terminals (setting torque: 0,5Nm)	
Assembly	35 mm standard top-hat rail (EN50022)	
Degree of protection (IEC 60529)	IP20	
Degree of contamination	2	
Housing Material	Bayblend (Polycarbonate+ABS+fiber-glass)	
Dimensions / Weight	100 x 79 x 26 / 120	mm / g

## WIRING DIAGRAM



## OPERATION:

NT15 switches on the output relay (ON) only if the temperature is between Tmin and Tmax (see functional diagram).

## INSTALLATION:

Installation and electrical connection must be performed by authorized personnel only.  
The NT15 control unit must be assembled in a suitable operating area (switch cabinet, protective housing, at least IP 54).  
The unit is installed by clipping it to a standard 35 mm top-hat rail in accordance with EN 50022.  
Before proceeding with the installation, verify that the product have no evident signs of damage due to the transport or storage operations; read carefully this manual.  
All the installation operations must be done with the machines in power-off status and without voltage; if during the installation there's something not clear, please, do not procede and contact STEM S.r.l. immediately.  
STEM S.r.l. isn't responsible for injury or damage in the case of not correct installation.

## CHECK and MAINTENANCE:

In order to verify the correct functioning of the system it's necessary to do periodic checks, the frequency of that check depends on the installation type and working conditions. The check consist of verify the integrity of the external housing of the unit and the correct

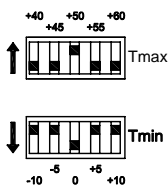
conditions of the cables; then it's necessary to do some test on the machine in order to verify the correct functioning of the signalling LEDs, of the sensors and that the nominal machine conditions are respected.  
STEM S.r.l. do not guarantee the correct functioning of the system in the case of the above checks are missed.  
If the control unit does not appear to function when operating voltage is applied (green LED does not light up), the unit must be returned unopened to the manufacturer.

## SETUP:

To set the temperatures it's necessary to move ONLY ONE switch for each selector in the direction of the arrows.

In the example beside the chosen temperatures are:

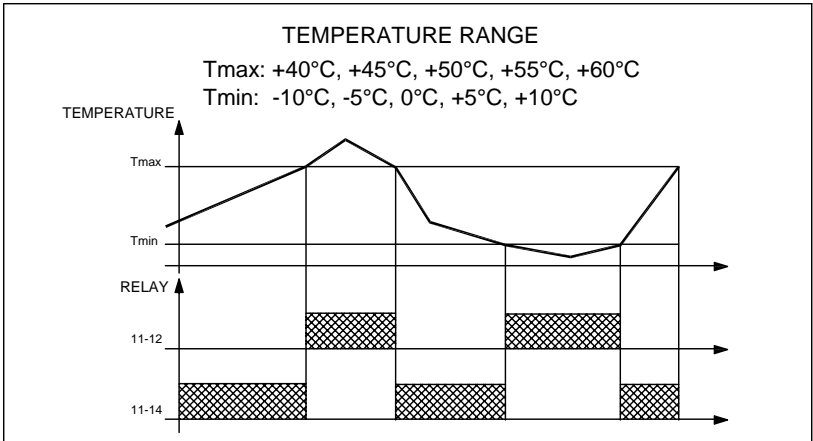
Tmax = +50° C; Tmin = 0° C



## LED's DISPLAY

Function	LED	Colour	State
Power supply	ON	green	on
Tmin -Temperature over the minimum limit	OUT	red	off
Tmin -Temperature under the minimum limit	OUT	red	on
Tmax -Temperature under the maximum limit	OUT	red	off
Tmax -Temperature over the maximum limit	OUT	red	on

## OPERATING DIAGRAM



## DIMENSIONS

