

Operating instructions for temperature control unit mod. NT10



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:

NT10 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 machine room temperature of lift and dumbwaiter.

The central unit is made by a glass reinforced Bayblend, suitable to be mounted on DIN rail 35 mm. It's provided of a remote temperature probe made of fiber glass polycarbonate with a green LED for the supply, a green LED that signals over-temperature conditions and a red LED that signals under-temperature conditions.

The probe is made in a M25 threaded housing with nylon stop nuts and a fast connection cable of 2 meter length.

NT10 is conform to the requirements of the european standard EN81-20 and is tuned to switch at the temperatures fixed by the standard:

Minimum Temperature +5°C
Maximum Temperature +40°C

OPERATION:

NT10 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 NT10 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 proceed 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.

1. Mount the central unit in the switchboard using the 35 mm DIN rail lock and make the connections.
2. Make a Ø25 mm hole in the board door.
3. Insert the temperature probe in the hole with the LED to the external.
4. Lock the probe with the supplied nuts.
5. Connect the probe to the unit using the fast connector; be sure that the remaining cable is enough to let the door open.

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.

SETUP:

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.

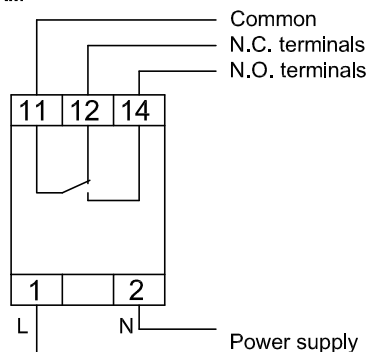
LED's DISPLAY (on probe)

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	green	off
Tmax -Temperature over the maximum limit	OUT	green	on

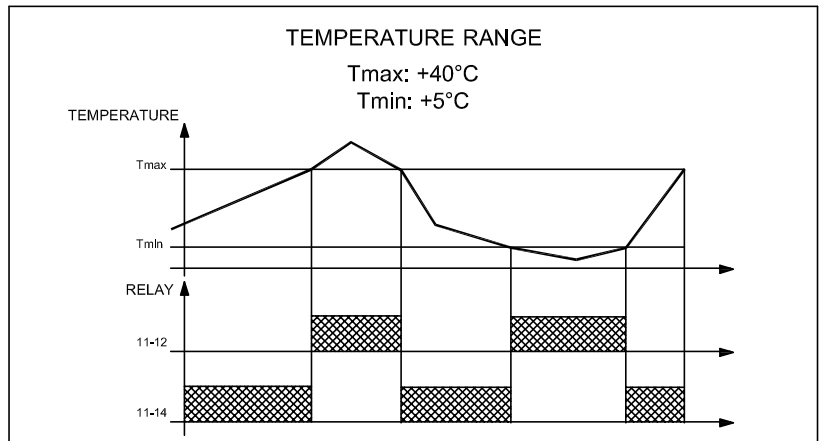
TECHNICAL DATA

PARAMETER	VALUE	UNITS
Supply voltage	230±10% (50 o 60 Hz)	V AC
Output voltage	250	V AC
Maximum switching current	3 (3)	A
Maximum switching power	750	VA
Life expectance	electical: 300.000; mechanical: 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)	
Probe material	Makrolon (Polycarbonate + fiber-glass)	
Dimensions	Central unit: 100 x 79 x 26; Probe: M25 x 1,5	mm
Total weight	250	g
Combustion class	V0 (UL94)	
Certifications	CE marking	
Referring standards	EN 81-20, EN 60730-1	

WIRING DIAGRAM



OPERATING DIAGRAM



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