

Digital heat regulators

- Heat regulators with LED display with 3 digits, 7 segments and decimal point with relay intervention signalling LED
- Display range: -99 ÷ +999 °C (depending on the probe connected)
- Display resolution: 0.1 °C (-9.9 ÷ +99.9 °C) and 1 °C (< -9.9 °C and > +99.9 °C)
- Precision: ± 0.5 % of the full scale value ±1 digit
- Possibility to select the type of probe (HT NTC excluded)
- Password to protect the setting
- Parameter setting with digital mode:
 - Set-point
 - Differential
 - Neutral zone
 - Output triggering timing
 - Digital input delay time and function
 - Alarm delay time
 - Probe gauging OFFSET
 - Resolution displayed
 - Temperature unit of measurement
 - Measurement display filter (updating speed)
 - Probe input type

HT NiPt / HT NTC / HT JK

- Operating modes (regulation):
- Heating or cooling ON/OFF (with or without Neutral Zone)
 - Direct action, Reverse and Neutral Zone PWM
 - ALARM
 - Refrigeration mode
 - Special mode
- Output: 1 or 2 relays with change-over contact 8 A / 250 V AC1
 - Digital input: 1 (excluding versions HT NiPt-P7A, HT NTC-P7A, HT JK-P7A) with configurable function: external alarm, ON/OFF regulation, probe display selection, Set-point switching, Direct/Reverse switching
 - Visual and acoustic alarm signalling for: external alarm (from digital input), probe alarm (fault), minimum or maximum alarm
 - Infrared receiver with RC-5 protocol (excluding versions HT NTC-1DA, HT NTC-2DA) for remote control unit (accessory available separately for remote programming)

Digital heat regulators

HT NiPt / HT NTC / HT JK

HT NiPt



HT NTC



HT JK



TECHNICAL INFORMATION

GENERAL CHARACTERISTICS

			HT NiPt - P7A	HT NiPt - P3A	HT NiPt - ..P3D	HT NiPt - ..DA
			HT NTC - P7A	HT NTC - P3A	HT NTC - P3D	HT NTC - ..DA
Model			HT JK - P7A	HT JK - P3A	HT JK - P3D	HT NTC - ..DA
Dimensions			Rear-panel 72x72 mm	Rear-panel 33x75 mm	Rear-panel 33x75 mm	4 DIN Modular
Power supply voltage in AC	A 50/60 Hz	V	24 / 230	230	12 ÷ 24	24 / 230
Power supply voltage in DC		V	-	-	12 ÷ 24	-
Power supply voltage tolerance		%	± 10	± 15	± 10	± 10
Absorption		VA	4,5	3	3	4.5
Relay outputs (change-over contact)						
capacity	at 250 V AC1	A	8	8	8	8
maximum breakaway starting current		A	10	10	10	10
maximum switchable power in AC		VA	2000	2000	2000	2000
maximum switchable resistive load	at 230 V	W	1760	1760	1760	1760
single-phase motor capacity		HP	1/4	1/4	1/4	1/4
maximum switchable voltage		V	250	250	250	250
Precision	at ambient temperature = 23 °C		± 0.5% of the full scale value ± 1 digit	± 0.5% of the full scale value ± 1 digit	± 0.5% of the full scale value ± 1 digit	± 0.5% of the full scale value ± 1 digit
Display range			-99 + 999 °C *	-99 + 999 °C *	-99 + 999 °C *	-99 + 999 °C *
Display resolution			0.1 °C (-9.9 ÷ +99.9 °C) 1 °C (<-9.9 °C and > +99.9 °C)	0.1 °C (-9.9 ÷ +99.9 °C) 1 °C (<-9.9 °C and > +99.9 °C)	0.1 °C (-9.9 ÷ +99.9 °C) 1 °C (<-9.9 °C and > +99.9 °C)	0.1 °C (-9.9 ÷ +99.9 °C) 1 °C (<-9.9 °C and > +99.9 °C)

* Depending on the selected probe



TECHNICAL INFORMATION

GENERAL CHARACTERISTICS

Model	HT NiPt - P7A		HT NiPt - P3A		HT NiPt - ..P3D		HT NiPt - ..DA	
	HT NTC - P7A		HT NTC - P3A		HT NTC - P3D		HT NTC - ..DA	
		HT JK - P7A	HT JK - P3A		HT JK - P3D		HT NTC - ..DA	
Sampling time	s	0.5	0.5		0.5		0.5	
Front protection degree		IP54	IP54		IP54		IP40	
Terminal protection degree		IP20	IP20		IP20		IP20	
Display		3 digits LED	3 digits LED		3 digits LED		3 digits LED	
		7 segments and dec. point	7 segments and dec. point		7 segments and dec. point		7 segments and dec. point	
Probe alarm signalling buzzer		■	■		■		■	
Infrared receiver for remote control unit		■	■		■		■ (1)	
Digital input			■		■		■	
Operating temperature	°C	0 ÷ +50	0 ÷ +50		0 ÷ +50		0 ÷ +50	
Operating humidity	RH	< 80%	< 80%		< 80%		< 80%	
Storage temperature	°C	-10 ÷ +70	-10 ÷ +70		-10 ÷ +70		-10 ÷ +70	

(1) excluding HT NTC-...DA



HEAT REGULATION

Digital heat regulators

Digital heat regulators to regulate the temperature both when heating and cooling in applications such as refrigeration counters, cold rooms and ambient temperature.

HT NTC

- Connectable probes:
 - NTC (10 kΩ at 25 °C)
- 2 probes inputs to measure two temperatures (one probe for the regulation and the other for the display)
- T2 temperature display indication LED (excluding Rear-panel version 33x75 mm)

! To complement the product the suitable probes must be ordered separately.

Digital heat regulators

HT NTC

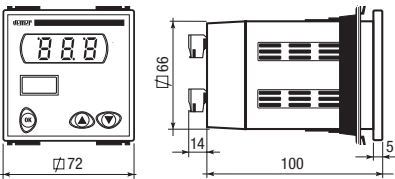
DIMENSIONS (mm)

CONNECTION DIAGRAM

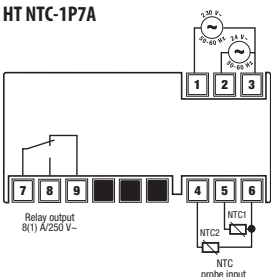
Front view / Side view

Diagram

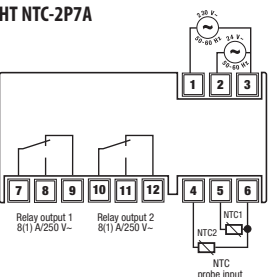
HT NTC-1P7A
HT NTC-2P7A



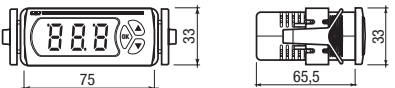
HT NTC-1P7A



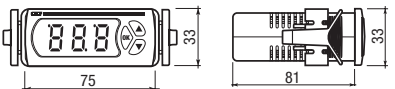
HT NTC-2P7A



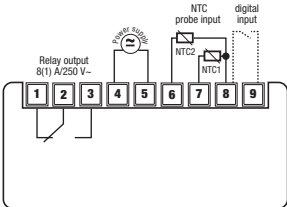
HT NTC-1P3D



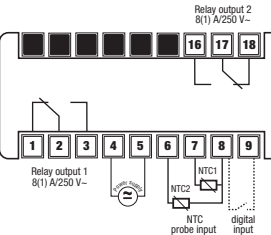
HT NTC-2P3D



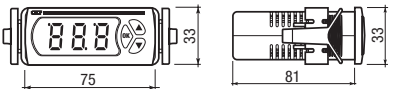
HT NTC-1P3D



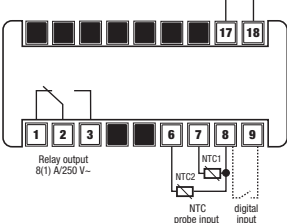
HT NTC-2P3D



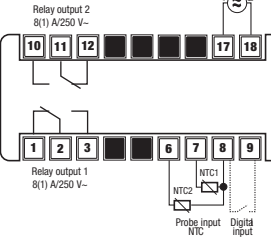
HT NTC-1P3A
HT NTC-2P3A



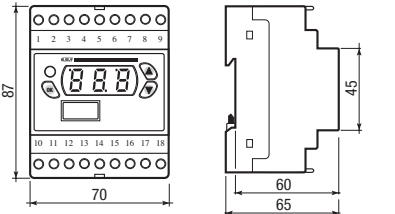
HT NTC-1P3A



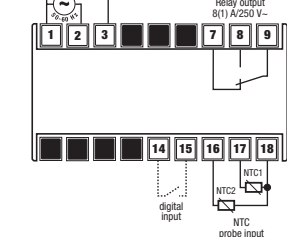
HT NTC-2P3A



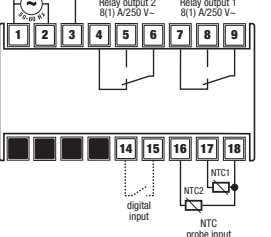
HT NTC-1DA
HT NTC-2DA



HT NTC-1DA



HT NTC-2DA



THERMOREGULATORS FOR THERMO-RESISTANCES

Code	Model	Version	Power supply	no. of relays
VM632700	HT NTC-1P7A	Rear-panel 72x72 *	24/230 V AC	1
VM633500	HT NTC-2P7A	Rear-panel 72x72 *	24/230 V AC	2
VM634300	HT NTC-1P3D	Rear-panel 33x75	12 ÷ 24 V AC/DC	1
VM635000	HT NTC-1P3A	Rear-panel 33x75	230 V AC	1
VE347100	HT NTC-2P3A	Rear-panel 33x75	230 V AC	2
VM636800	HT NTC-2P3D	Rear-panel 33x75	12 ÷ 24 V AC/DC	2
VM637600	HT NTC-1DA	4 DIN Modular **	24/230 V AC	1
VM638400	HT NTC-2DA	4 DIN Modular **	24/230 V AC	2

* This version does not have a digital input
** Infrared receiver for remote control unit not available

REFERENCE STANDARDS

Compliance with Community Directives: 73/23/EEC mod. from 93/68/EEC (Low Voltage) 89/336/EEC mod. from 92/31/EEC and 93/68/EEC (E.M.C.) is declared with reference to the following standards: • For safety: EN 60730-2-9 • For E.M. compatibility: EN 55014-1 / EN 55014-2 / EN 61000-6-2 / EN 61000-6-4