

Digital heat regulators

HT NiPt / HT NTC / HT JK

- 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

- 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)

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HT NiPt



HT NTC



HT JK



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	
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	0.5		
Front protection degree		IP54	IP54	IP54	IP54	IP40		
Terminal protection degree		IP20	IP20	IP20	IP20	IP20		
Display		3 digits LED 7 segments and dec. point	3 digits LED 7 segments and dec. point	3 digits LED 7 segments and dec. point	3 digits LED 7 segments and dec. point	3 digits LED 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	0 ÷ +50		
Operating humidity	RH	< 80%	< 80%	< 80%	< 80%	< 80%		
Storage temperature	°C	-10 ÷ +70	-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.



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

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)

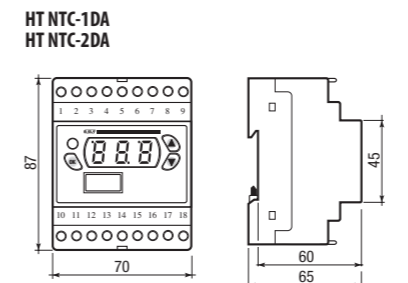
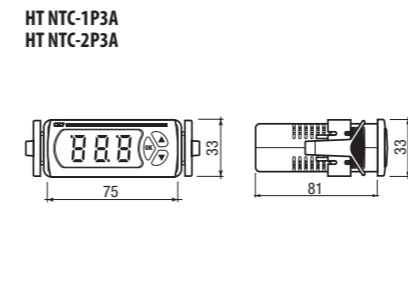
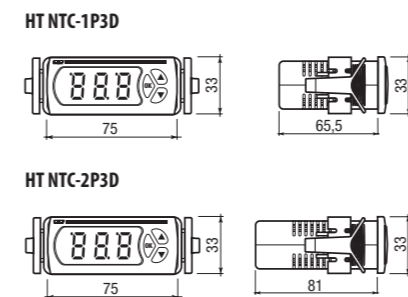
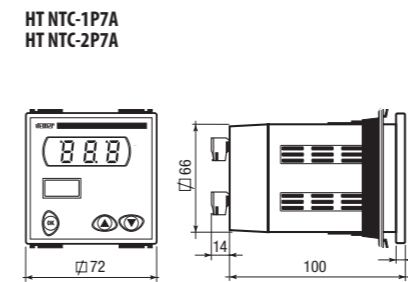
⚠ To complement the product the suitable probes must be ordered separately.

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HT NTC

DIMENSIONS (mm)

Front view / Side view



CONNECTION DIAGRAM

Diagram

