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)

GENERAL CHARACTERISTICS

Model			HT NiPt - P7A HT NTC - P7A HT JK - P7A	HT NiPt - P3A HT NTC - P3A HT JK - P3A	HT NiPt - ..P3D HT NTC - P3D HT JK - P3D	HT NiPt - ..DA HT NTC - ..DA 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

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HT NiPt

HT NTC

HT JK

GENERAL CHARACTERISTICS

Model		HT NiPt - P7A HT NTC - P7A HT JK - P7A	HT NiPt - P3A HT NTC - P3A HT JK - P3A	HT NiPt - ..P3D HT NTC - P3D HT JK - P3D	HT NiPt - ..DA HT NTC - ..DA 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 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
Operating humidity	RH	< 80%	< 80%	< 80%	< 80%
Storage temperature	°C	-10 ÷ +70	-10 ÷ +70	-10 ÷ +70	-10 ÷ +70

(1) excluding HT NTC-...DA

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

- Connectable probes:
  - Ni 100
  - Pt 100*
- Probes inputs: 1

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

THERMOREGULATORS FOR THERMO-RESISTANCES

Code	Model	Version	Power supply	no. of relays
VM625100	HT NiPt-1P7A	Rear-panel 72x72 **	24/230 V AC	1
VM626900	HT NiPt-2P7A	Rear-panel 72x72 **	24/230 V AC	2
VM627700	HT NiPt-1P3D	Rear-panel 33x75	12 ÷ 24 V AC/DC	1
VM628500	HT NiPt-1P3A	Rear-panel 33x75	230 V AC	1
VE346300	HT NiPt-2P3A	Rear-panel 33x75	230 V AC	2
VM629300	HT NiPt-2P3D	Rear-panel 33x75	12 ÷ 24 V AC/DC	2
VM630100	HT NiPt-1DA	4 DIN Modular	24/230 V AC	1
VM631900	HT NiPt-2DA	4 DIN Modular	24/230 V AC	2

* Pt 100 Probes with 2 or 3 wires

** This version does not have a digital input

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

Digital heat regulators HT NiPt

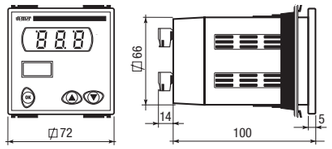
DIMENSIONS (mm)

CONNECTION DIAGRAM

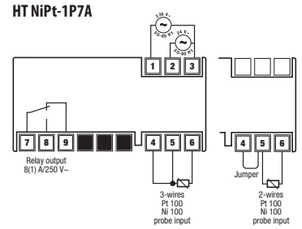
Front view / Side view

Diagram

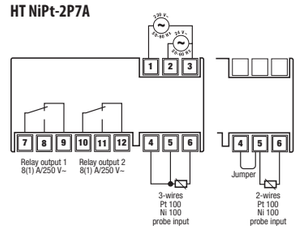
HT NiPt-1P7A
HT NiPt-2P7A



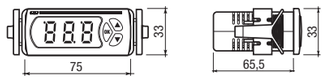
HT NiPt-1P7A



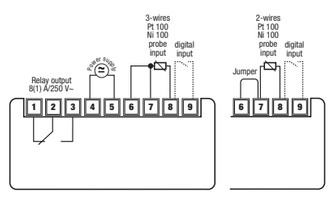
HT NiPt-2P7A



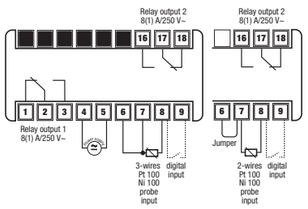
HT NiPt-1P3D



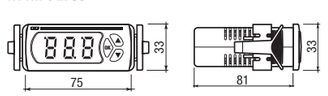
HT NiPt-1P3D



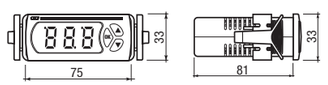
HT NiPt-2P3D



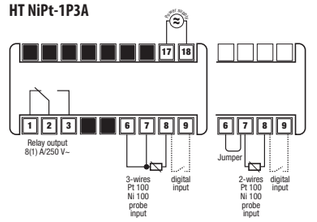
HT NiPt-2P3D



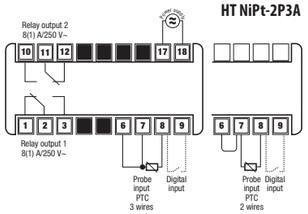
HT NiPt-1P3A
HT NiPt-2P3D



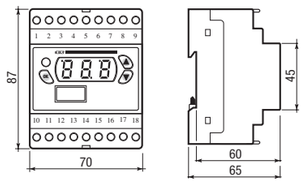
HT NiPt-1P3A



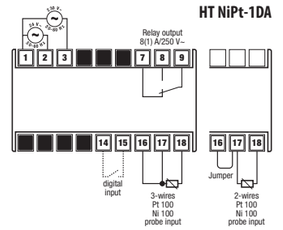
HT NiPt-2P3A



HT NiPt-1DA
HT NiPt-2DA



HT NiPt-1DA



HT NiPt-2DA