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 and burners.

HT JK

- Connectable probes:
  - J (Fe-CuNi)
  - K (NiCr-Ni)
  - L (Fe-CuNi)
  - R (Pt13Rh-Pt)
  - S (Pt10Rh-Pt)
  - T (Cu-CuNi)
  - E (NiCr-CuNi)
  - N (NiCrSi-NiSi)
- Probes inputs: 1
- Automatic compensation of the cold joint

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

HEAT REGULATORS FOR THERMOCOUPLES

Code	Model	Version	Power supply	no. of relays
VM639200	HT JK-1P7A	Rear-panel 72x72 *	24/230 V AC	1
VM640000	HT JK-2P7A	Rear-panel 72x72 *	24/230 V AC	2
VM641800	HT JK-1P3D	Rear-panel 33x75	12 ÷ 24 V AC/DC	1
VM642600	HT JK-1P3A	Rear-panel 33x75	230 V AC	1
VE348900	HT JK-2P3A	Rear-panel 33x75	230 V AC	2
VM643400	HT JK-2P3D	Rear-panel 33x75	12 ÷ 24 V AC/DC	2
VM644200	HT JK-1DA	4 DIN Modular	24/230 V AC	1
VM645900	HT JK-2DA	4 DIN Modular	24/230 V AC	2

* 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 JK

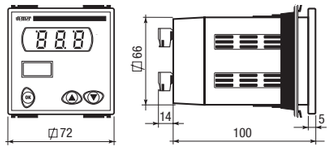
DIMENSIONS (mm)

CONNECTION DIAGRAM

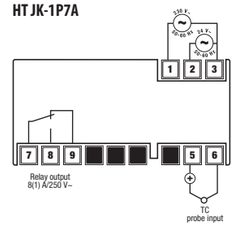
Front view / Side view

Diagram

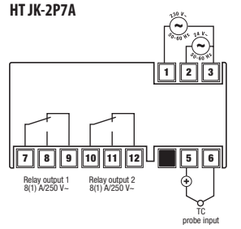
HT JK-1P7A
HT JK-2P7A



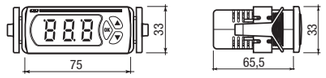
HT JK-1P7A



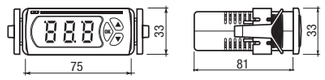
HT JK-2P7A



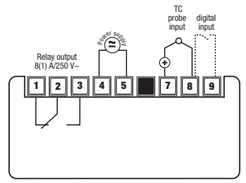
HT JK-1P3D



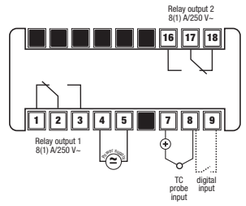
HT JK-2P3D



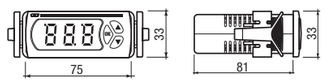
HT JK-1P3D



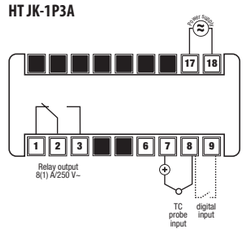
HT JK-2P3D



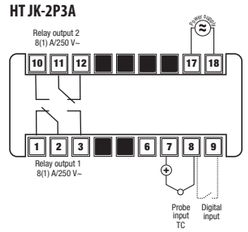
HT JK-1P3A
HT JK-2P3A



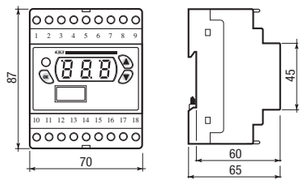
HT JK-1P3A



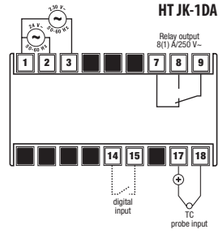
HT JK-2P3A



HT JK-1DA
HT JK-2DA



HT JK-1DA



HT JK-2DA