FHT-2P3D

VM667300



Digital panel-mounted temperature controller (33x75) for temperature control. The device can be connected to resistance thermometer probes (Ni100, Pt100), thermocouples J, K, L, R, S, T, E, N and linear sensors.

General features

- Possibility of selecting the probe type among Thermocouples, RTDs and Linear sensors
- Password protection for stored settings
- Parameter setting in digital mode:
  - Set-point
  - Differential
  - Neutral zone
  - Output actuation times
  - Function and digital input delay time
  - Alarm delay time
  - Probe calibration OFFSET
  - Displayed resolution
  - Temperature measurement unit
  - Measurement display filter (refresh rate)
  - Probe input type
- Modes of operation (regulation)
  - ON/OFF heating or cooling (with or without Neutral Zone)
  - PWM Direct, Reverse and Neutral Zone action
  - ALARM
  - Cooling mode
  - Special mode
- Acoustic and visual alarm signalling for:
  - probe alarm (malfunction)
  - minimum or maximum alarm
- Opto-isolated RS-485 serial communication output (MODBUS protocol)
- Power for the active probe is supplied directly by the device

Technical specifications

Power supply	
Power supply	12 ÷ 24 Vac/Vdc (-10% ÷ +10%)
Frequency	50 / 60 Hz
Absorption	3 VA
Measure	
Temperature display resolution	0.1 (for values in the range -9.9 ÷ 99.9) °C 1 (for values <-9,9 and > 99.9) °C

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Revision date: 2026-02-02

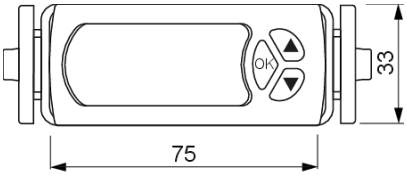
Measure	
Temperature measurement accuracy	± 0.5 % of full scale value ± 1 digit °C
Functions	
Keypad lock function	✓
Probe alarm buzzer	✓
Functional characteristics	
Temperature display range	-99 ÷ 999 (depending on probe selected) °C
Operating conditions	
Operating temperature range	0 ÷ 50 °C
Relative humidity	< 80% RH
Storage temperature range	-25 ÷ 70 °C
Viewing	
Display	Red LEDs
Digits number	3
Display range	-99 ÷ 999 °C *
Inputs	
Digital input	✓
No. digital inputs	1
Auxiliary input features	Configurable
Number of connectable probes	1
Type of connectable probes	Ni 100 Pt 100 (2 or 3 wires) J (Fe-CuNi) K (NiCr-Ni) L (Fe-CuNi) R (Pt13Rh-Pt) S (Pt10Rh-Pt) T (Cu-CuNi) E (NiCr-CuNi) N (NiCrSi-NiSi) Linear sensors (output 0-20 mA, 4-20 mA, 0-1 V)
Outputs	
Relay number	2
Relay type	Heat exchange
Relay capacity at 250 Vac	8 A
Analogue Output	✓
Note analogue output	0 ÷ 10 V 4 ÷ 20 mA 0 ÷ 20 mA
Serial interface output	✓
Probe power supply	9 Vdc (max 30 mA)

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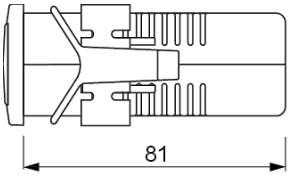
Mechanical features	
Protection degree	IP54 (on the front) IP20 (on terminals)
Overall dimensions	
Height (A)	33 mm
Width (B)	75 mm
Depth (C)	81 mm

Dimensions

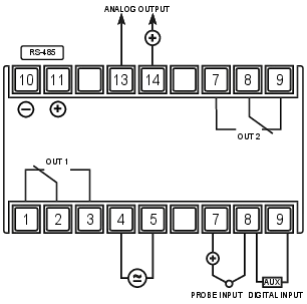
Front View



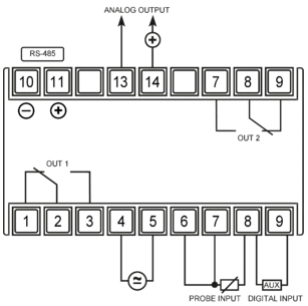
Side View



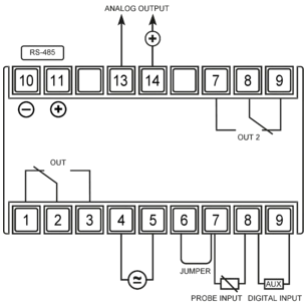
Wiring diagram



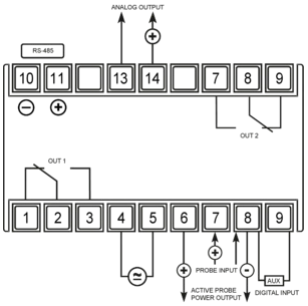
Probe input:
- TC



3-wire probe input:
- Pt 100
- Ni 100



2-wire probe input:
- Pt 100
- Ni 100



Probe input:
- 0÷1 V
- 4÷20 mA
- 0÷20 mA

Active probe output power:
- 9 Vdc max 30 mA

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Product variants

FHT-1P3D

VM666500

Digital panel-mounted temperature controller (33×75) connectable with thermocouple probes, resistance thermometers, and linear sensors, 12 ÷ 24 Vac/Vdc, with 1 relay

Accessories compatible with the product

Pt 100 EC

VE122800

Pt100 EC RTD sensor, Platinum, 2-wire, for temperature measurement, 1.5 m length

Pt 100

VJ44250000

Pt100 RTD sensor, Platinum, 3-wire, for temperature measurement, 3 m length

Pt 100 10MT

VJ44250010

Pt100 RTD sensor, Platinum, 3-wire, for temperature measurement, 10 m length

Pt 100 E

VN879300

Pt 100 E length 1.5 m

Ni 100

VJ44170000

Ni100 RTD sensor, Nickel, 3-wire, for temperature measurement, 3 m length

Fe-Co (J)

VJ44330000

2-wire J-type thermocouple for temperature detection, length 3 m

Cr-Al (K)

VJ44410000

2-wire type K thermocouple for temperature detection, length 3 m

Cr-Al 1200 (K)

VJ44900000

2-wire type K thermocouple for temperature detection, length 3 m

TM3 230/12

VE256400

Transformer with 230 Vac terminals, 3 VA power and 12 V secondary voltage

TM3 115/12

VE257200

Transformer with 115 Vac terminals, 3 VA power and 12 V secondary voltage

TM3 230/24

VE258000

Transformer with 230 Vac terminals, 3 VA power and 24 V secondary voltage

TM3 115/24

VE259800

Transformer with 115 Vac terminals, 3 VA power and 24 V secondary voltage

TM6 230/12

VE260600

Transformer with 230 Vac terminals, 6 VA power and 12 V secondary voltage

TM6 230/24

VE261400

Transformer with 230 Vac terminals, 6 VA power and 24 V secondary voltage

Reference standards

Compliance with Community Directives:

• 2014/35/UE (LVD) • 2014/30/UE (EMCD) • 2011/65/UE e 2015/863/UE (ROHS)

is declared with reference to the following Standards:

• EN IEC 60730-2-9 • EN IEC 63000

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