Please read this document carefully before using this product. The guarantee will be invalidated if the device is damaged by not following instructions detailed in the manual. The company shall not be responsible for any damage or losses however caused, which may be experienced as a result of the installation or use of this product.

ENDA ETC1311 DIGITAL THERMOSTAT

Thank you for choosing ENDA ETC1311 temperature controller.

*** 35 x 77mm sized.**
*** On-Off control.**
*** J, K, Pt100 or Pt1000 input.**
*** Temperature compensation.**
*** In the case of probe failure, heating can be selected on, off or periodical running.**
*** Upper and lower limits of the setpoint can be adjusted.**
*** Set value can be adjusted by using single key.**
*** CE marked according to European Norms.**

CE RoHS Compliant

Order Code : ETC1311-□□-□□□□□□-□
1 2 3

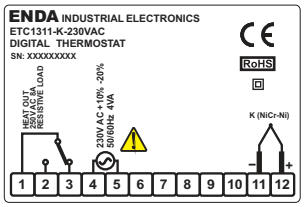
1 - Input
FE.....Fe-Const (J)
RT.....Pt100
PT.....Pt1000
K.....NiCr-Ni (K)

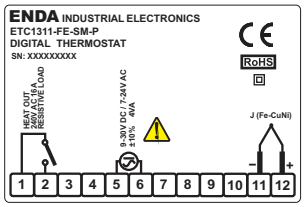
2 - Supply Voltage
230VAC...230V AC
24VAC.....24V AC
12VAC.....12V AC
SM.....9-30V DC / 7-24V AC

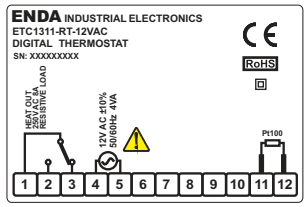
3 - Output
P..... Relay-16A
None...Relay-8A
SSR....Logic output

Connection Diagram

ENDA ETC1311 is intended for installation in control panels. Make sure that the device is used only for intended purpose. The electrical connections must be carried out by a qualified staff and must be according to the relevant locally applicable regulations. During an installation, all of the cables that are connected to the device must be free of electrical power. The device must be protected against inadmissible humidity, vibrations, severe soiling and make sure that the operation temperature is not exceeded. The cables should not be close to the power cables or components.



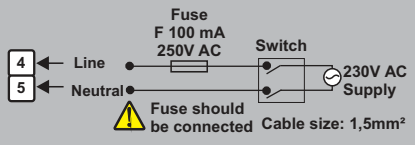




Equipment is protected throughout by DOUBLE INSULATION.

Holding screw 0.4-0.5Nm

NOTE:
SUPPLY:
184-253V AC
50/60Hz 4VA



Note:
1) Mains supply cords shall meet the requirements of IEC 60227 or IEC 60245.
2) In accordance with the safety regulations, the power supply switch shall bring the identification of the relevant instrument and it should be easily accessible by the operator.

Technical Specifications

ENVIRONMENTAL CONDITIONS	
Ambient/storage temperature	0 ... +50°C/-25 ... 70°C (with no icing)
Max. relative humidity	80%, up to 31°C decreasing linearly 50% at 40°C
Rated pollution degree	According to EN 60529 Front panel : IP65 Rear panel : IP20
Height	Max. 2000m

Do not use the device in locations subject to corrosive and flammable gasses.

ELECTRICAL CHARACTERISTICS	
Supply voltage	230V AC +10% -20%, 50/60Hz or 24V AC ±10%, 50/60Hz or 12V AC ±10%, 50/60Hz or optional 9-30V DC / 7-24V AC ±10% SMPS module.
Power consumption	Max. 4VA
Wiring	2.5mm² screw-terminal connections.
Scale	0 .... +600°C for Fe-Const (J) and NiCr-Ni (K). -100 .... +600°C for Pt100 and Pt1000
Accuracy	± 0.5% (of full scale) ±1 digit
Indicator	3 digits, 14.2mm, 7 segment red LED
EMC	EN 61326-1: 1997, A1: 1998, A2: 2001 (Performance criterion B is satisfied for EMC tests. The device is designed to operate in controlled electromagnetic environment)
Safety requirements	EN 61010-1: 2001 (Pollution degree 2, overvoltage category II)

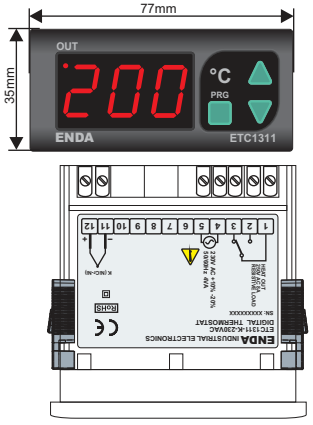
OUTPUT	
HEAT OUT	For ETC1311-XX-XX ; Relay: 250VAC, 8A(for resistive load), NO+NC, For ETC1311-XX-XX-P ; Relay: 240VAC, 16A(for resistive load), NO or 12VDC 20mA logic out.
Life expectancy for relay	For ETC1311-XX-XX ; Mechanical 30.000.000; Electrical 100.000 operation. For ETC1311-XX-XX-P ; Mechanical 30.000.000; Electrical 30.000 operation.

CONTROL	
Control type	Single-setpoint control
Control algorithm	On-Off control
Hysteresis	Adjustable between 1 ... 20°C.

HOUSING	
Housing type	Suitable for flush-panel mounting.
Dimensions	W77xH35xD71mm
Weight	Approx. 198g (After packing)
Enclosure material	Self extinguishing plastics

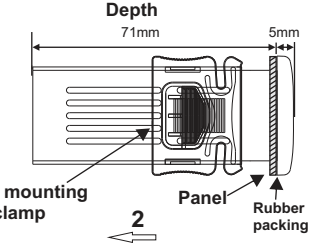
While cleaning the device, solvents (thinner, benzine, acid etc.) or corrosive materials must not be used.

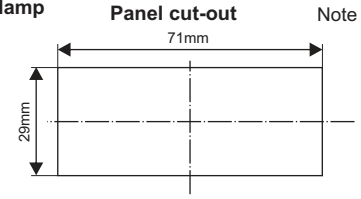
Dimensions



For removing mounting clamps:

Push the flush-mounting clamp in direction **1** as shown in the figure below. Then, pull out the clamp in direction **2.**





Note :1) Panel thickness should be maximum 7 mm.
2) If there is no 60mm free space at the back side of the device, it would be difficult to remove it from the Panel.

SİSEL MÜHENDİSLİK ELEKTRONİK SAN. VE TİC. A.Ş.
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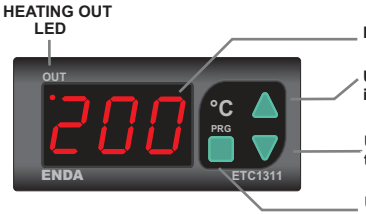
ETC1311-E-10-R



Displayed process value in the run mode, parameter name or value in programming mode.

Used for selecting menu and increasing setpoint value of the parameters in the programming mode and for increasing the setpoint value in the run mode. When held down for a few seconds, the change rate accelerates.

Used for selecting parameters and decreasing the setpoint value in the programming mode and for decreasing the setpoint value in the run mode. When held down for a few seconds, the change rate accelerates.

Used for adjusting the value of the setpoint in the run mode and for adjusting the selected parameter in the programming mode.

While holding PRG key, setpoint value of the selected parameter appears and by using ▲ and ▼ keys the value can be adjusted.

Run mode

100 Process Value → ▼ → 200 → ▼ → 199 → ▲ → 200 → If no key is pressed for 3 seconds

When pressed ▼ or ▲ key, temperature set value flashes and by using ▲ and ▼ keys the value can be adjusted.

If no key is pressed for 3 seconds run mode is returned.

If PRG key is pressed and held for 3 seconds, programming mode is entered.

If PRG key is pressed, run mode is entered.

Programming Mode

Con → ▲ → SEC → ▲

Con
- ▼ HYS — Switch hysteresis for the setpoint.
- ▼ UPL — The upper limit of the setpoint.
- ▼ LoL — The lower limit of the setpoint.
- ▼ Eon — In the case of error, on time rate of the relay output.
- ▼ Ect — In the case of error, period of the relay output.
- ▼ oFS — Offset value
- ▼ (back to HYS)

SEC
- ▼ Cod — Access code for menu of security. Enter 311 then press ▼ key.
- ▼ Aco — Security parameter for menu of configuration. non= Menu is invisible. PYE= Parameters of menu are changeable. Pno= Parameters of menu are only visible.
- ▼ ASE — Security parameter for temperature set value. PYE= Set value is changeable. Pno= Set value is only visible.
- ▼ (back to Cod)

PARAMETER TABLE

			MIN	MAX	UNIT	DEF.SET
Con	**Menu of Configuration parameters**					
HYS	Switch hysteresis for the setpoint. (When temperature falls to SET-HYS, output relay becomes active.)		1	20	°C	1
UPL	The upper limit of the setpoint.		LoL	600	°C	600
LoL	The lower limit of the setpoint.	Fe-CuNi / NiCr-Ni	0	UPL	°C	0
		Pt100	-99	UPL	°C	-99
Eon	In the case of error, on time rate of the relay output.		0	100	% Ect	0
Ect	In the case of error, period of the relay output.		10	250	sec	30
oFS	Offset value.		-99	99	°C	0
SEC	**Menu of Parameter security**					
Aco	Security parameter for menu of configuration. non= Menu is invisible. PYE= Parameters of menu are changeable. Pno= Parameters of menu are only visible.					
ASE	Security parameter for temperature set value. PYE= Set value is changeable. Pno= Set value is only visible.					

Error Messages

- ---: Means, temperature value is higher than the scale.
- ___: Means, temperature value is lower than the scale.
- PFA: Means, temperature sensor is broken or over temperature.