



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 ET1413R RADIATOR CONTROLLER

Thank you for choosing ENDA ET1413R Radiator Controller.

- ▶ 35 x 77mm sized.
- ▶ On-Off control.
- ▶ CIRCULATION, COAL and FAN control outputs.
- ▶ Upper and Lower setpoint value limits can be adjusted.
- ▶ Coal output can be set by depending on temperature duration or manually.
- ▶ Upper and Lower alarm limits can be configured to dependent on set value.
- ▶ CE marked according to the European Norms.



Order Code : ET1413R-NTC - 1

1 - Supply Voltage

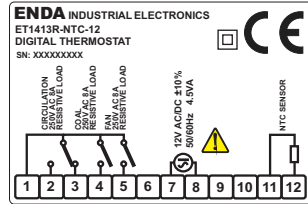
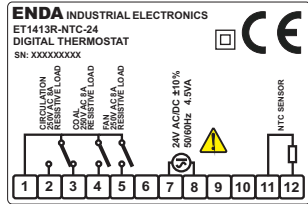
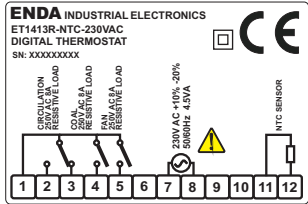
- 230.....230V AC
- 2424V AC/DC
- 1212V AC/DC



Connection Diagram



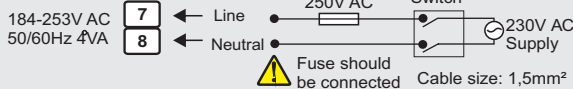
ENDA ET1413R is intended for installation in control panels. Make sure that the device is used only for intended purpose. The electrical connections must be carried out by a qualified staff and must be according to the relevant locally applicable regulations. During an installation, all of the cables 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:



Note:

- Mains supply cords shall meet the requirements of IEC 60227 or IEC 60245.
- 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

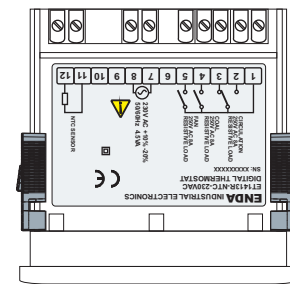
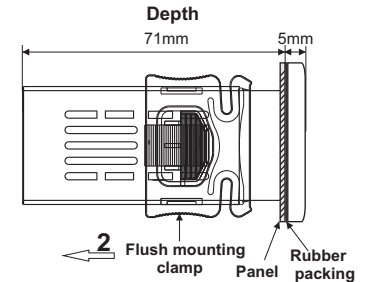
ENVIRONMENTAL CONDITIONS	
Ambient / Storage Temperature	0 ... +50°C/-25 ... 70°C (without icing)
Relative Humidity	Relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C.
Protection class	According to EN60529; Front panel : IP65 Rear Panel : IP20
Height	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 ; 12V AC/DC ± %10 or 24V AC/DC ±%10
Power Consumption	Max. 4.5VA
Connection	2.5mm² screw-terminal connections
Scale	0 ... +150.0°C
Sensitivity / Accuracy	0.1°C / ±1°C
Time Accuracy	For Time Unit (±% 1-15sec), For Minute Unit (±% 1-1sec)
Display	4 digits, 12.5mm, 7 segment LED
EMC	EN 61326-1: 2013 (Provides performance criterion B for EMC experiments. The device is intended for use in controlled electromagnetic environments.)
Safety Requirements	EN 61010-1: 2010 (Pollution degree 2, overvoltage category II)
OUTPUTS	
Circulation Output Relay	NO+NC 250V AC, 8A (for resistive load), 1/2hp, 0.37kW 240V AC CosF = 0.4 (for inductive load)
Coal Output Relay	NO 250V AC, 8A (for resistive load), 1/2hp, 0.37kW 240V AC CosF = 0.4 (for inductive load)
Fan Output Relay	NO 250V AC, 8A (for resistive load), 1/2hp, 0.37kW 240V AC CosF = 0.4 (for inductive load)
Life Expectancy for Relay	30.000.000 Switching for no-load operation; 300.000 switching for 8A resistive load at 250VAC.
CONTROL	
Control Type	Single set-point control
Control Algorithm	On-Off control
Hysteresis	Adjustable between 1 ... 20.0°C.
HOUSING	
Housing Type	Suitable for flush-panel mounting
Dimensions	W77xH35xD71mm
Weight	Approx. 190g (After packing)
Enclosure Material	Self extinguishing plastics.
⚠ While cleaning the device, solvents (thinner, gasoline, 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.



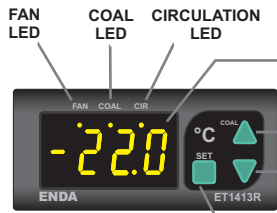
Flush mounting clamp

Panel Cut-out



Note:

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



In "Running Mode", indicates the measurement temperature value. In "Programming Mode", indicates the current parameter's name or parameter's value.

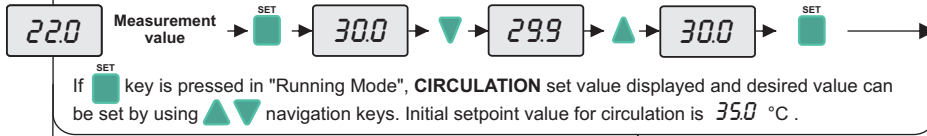
COAL output will be active as long as COAL key is pressed while in "Running Mode". In "Programming Mode", provides the menu selection and increases the parameter value. In "Running Mode", by using together with the SET key, provides the increases the set value. If pressed continuously, value increases rapidly.

In "Programming Mode", provides the parameter selection and decreases the parameter value. In "Running Mode", by using together with the SET key, provides the decreases the set value. If pressed continuously, value decreases rapidly.

In "Running Mode", provides the set value. In "Programming Mode", provides the configuring to selected parameter value.

In order to configuring a selected parameter, press and hold down to **SET** key and perform the desired settings by using **▲▼** navigation keys.

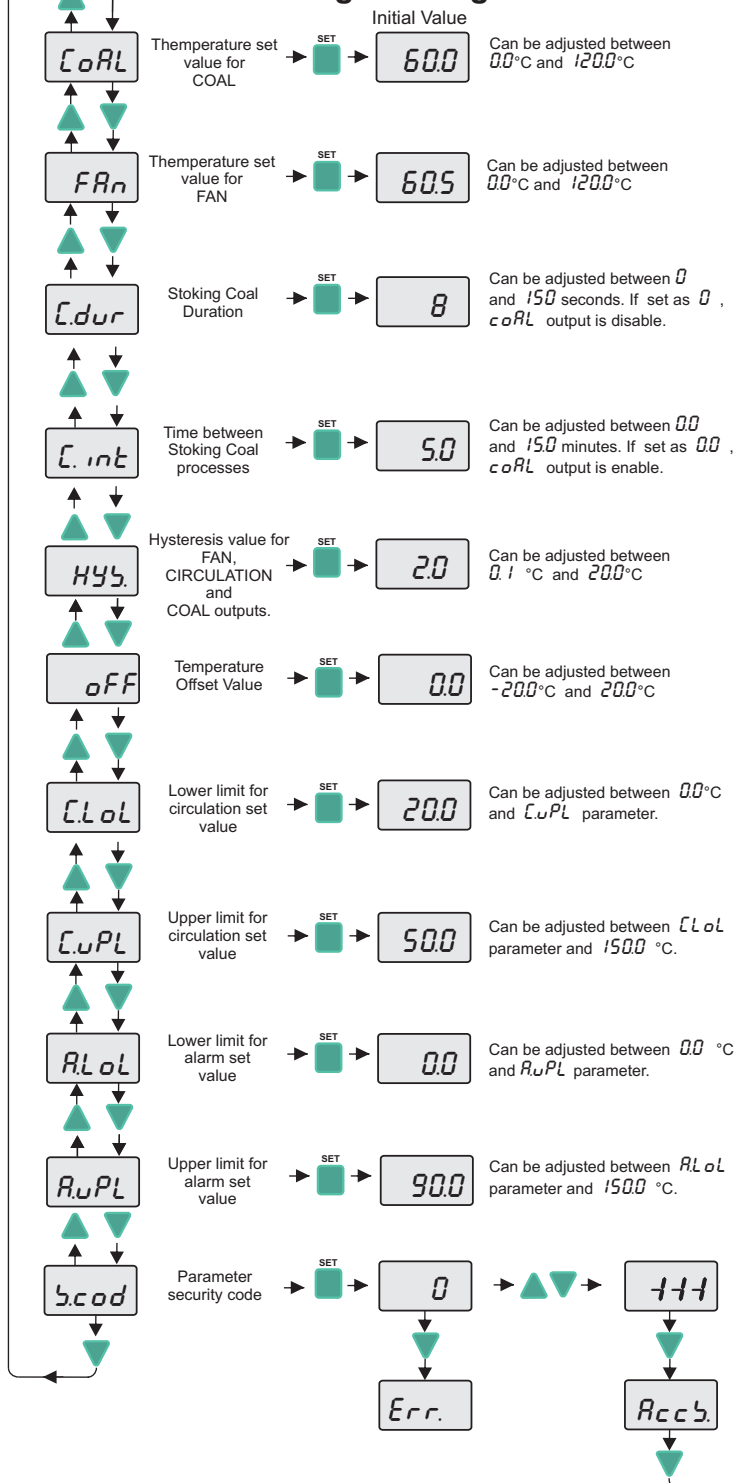
Running Mode



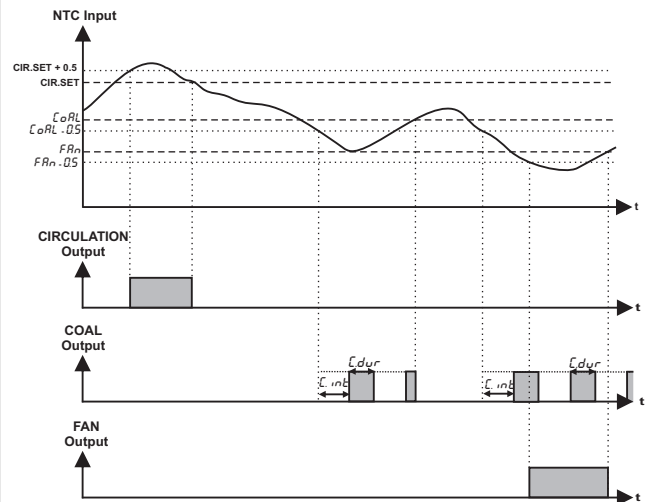
if **▲▼** keys are pressed together for 3 seconds, "Programming Mode" is entered.

if **▲▼** keys are pressed together, "Running Mode" is entered.

Programming Mode



Output Table



Error Messages

- P5C** Thermostat probe or line is short circuited
- PFA** Thermostat probe not connected, broken or probe faulty.
- Measured value is higher than the scale
- Measured value is lower than the scale

23.5 If the measurement value is blinking on display, measured value is out of alarm scale limits.