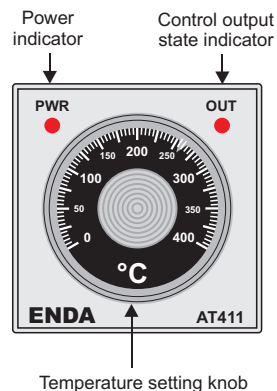




Read this document carefully before using this device. The guarantee will be expired by damaging of the device if you don't attend to the directions in the user manual. Also we don't accept any compensations for personal injury, material damage or capital disadvantages.

ENDA AT411 ANALOG THERMOSTAT

Thank you for choosing ENDA AT411 temperature controller.



- * 48 x 48mm sized.
- * Fe-Const/NiCr-Ni thermocouple or Pt100 input.
- * Selectable On-Off or time proportional controls.
- * Adjustable proportional band.
- * Suitable for 8-pins octal connector or screw terminal connection.
- * Control output is de-energized in the case of sensor failure.
- * CE marked according to European Norms.

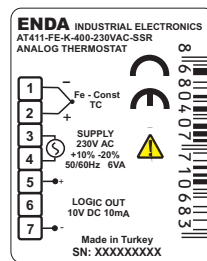
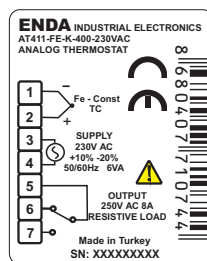
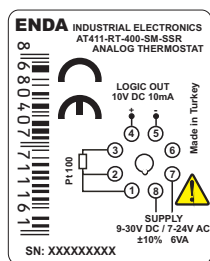
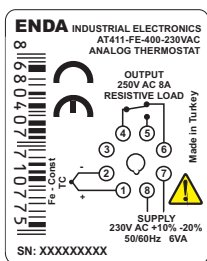


Order Code : AT411-□-□-□-□-□-□-□-□-□-□

- | | | | | |
|--|--|---|--|---|
| 1- Sensor Type
FE...Fe-Const
RT...Pt100
NI...NiCr-Ni | 2- Connection Type
K.....Screw Terminal (for Fe-Const)
None...Octal Connector | 3- Scale
400....400°C
300....300°C (for Fe-Const)
200....200°C (for Fe-Const) | 4- Supply Voltage
230VAC...230V AC
110VAC...110V AC
24VAC...24V AC
SM.....9-30V DC / 7-24V AC | 5- Control Output
SSR....Logic Output
None...Relay |
|--|--|---|--|---|

Connection Diagram

ENDA AT411 is intended for installation in control panels. Make sure that the device is used only for intended purpose. The electrical connections must be carried on 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 energy. The device must be protected against inadmissible humidity, vibrations, severe soiling and make sure that the operation temperature is not exceeded. All input and output lines that are not connected to the supply network must be laid out as shielded and twisted cables. These cables should not be close to the power cables or components. The shielding must be grounded on the instrument side.



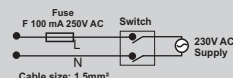
Logic output of the instrument is not electrically insulated from the internal circuits. Therefore, when using a grounding thermocouple, do not connect the logic output terminals to the ground.

- 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.

NOTE :

SUPPLY:

Fuse should be connected.



SENSOR INPUT:

For Fe-Const thermocouple :
Use suitable compensation cables. Don't use jointed cables. Pay attention to the polarities of the thermocouple cables as shown in the figure below.

For resistance thermometer :
When 2 wired Pt 100 is used, terminals 2 and 3 must be short circuited.

Technical Specifications

ENVIRONMENTAL CONDITIONS	
Ambient/storage temperature	0 ... +50 °C/25 ... +70°C
Max. relative humidity	80%, up to 31 °C decreasing linearly 50% at 40 °C
Rated pollution degree	According to EN 60529 Front panel : IP60 Rear panel : IP20
Height	Maximum 2000m
Do not use the device in locations subject to corrosive and flammable gasses.	

ELECTRICAL CHARACTERISTICS	
Supply voltage	230V AC +10% -20% or 110V AC +10% -20% or 24VAC ±10%, 50/60Hz or optional 9-30V DC / 7-24V AC ±10% SMPS
Power consumption	Maximum 6VA
Connection	8-pins octal connector or screw terminal connection.
Scale	0 ... 400 °C / 0 ... 300 °C / 0 ... 200 °C
Sensitivity	1°C
Accuracy	±4% (of full scale)
EMC	EN 61326-1: 2013
Safety requirements	EN 61010-1: 2010 (Pollution degree 2, overvoltage category II)

OUTPUT	
Control output	Relay: 250V AC, 8A (for resistive load), NO+NC or 10V DC 10mA logic output.
Life expectancy for relay	Mechanical 30.000.000 operation; Electrical 300.000 operation.
Control output state	When control output is energised OUT LED becomes on .

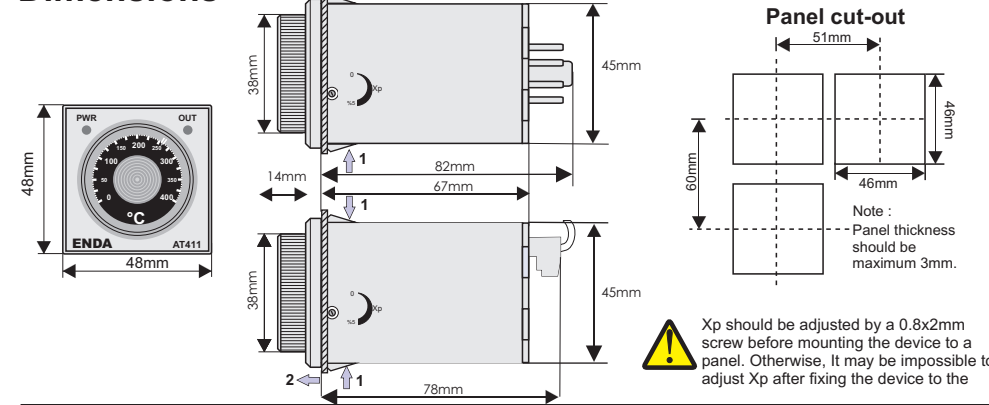
CONTROL	
Control type	Single-setpoint control
Control algorithm	On-Off (Xp=0) or time proportional controls
Proportional band	0 ... 5% (adjustable from the right sight.)
Hysteresis	3°C (for On-Off control)

HOUSING	
Housing type	Suitable for flush-panel mounting.
Dimensions	W48xH48xD82mm
Weight	Approx. 170g (after packing)
Enclosure material	Self extinguishing plastics
While cleaning the device, solvents (thinner, benzene, acid etc.) or corrosive materials must not be used.	

Application areas

Plastic injection presses, automatic bread making ovens, nylon bag machines, shrink packing machines, furniture presses, industrial ovens, textile machines, ironing presses and other temperature control applications.

Dimensions



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