

english



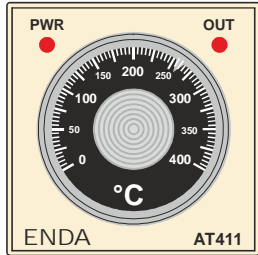
Read this document carefully before using this device. The guarantee will be expired by damaging of the device if you don't attend to the directions in the user manual. Also we don't accept any compensations for personal injury, material damage or capital disadvantages.

ENDA AT411 ANALOG THERMOSTAT



Thank you for choosing ENDA AT411 temperature controller.

- * 48 x 48mm sized.
- * Pt100 or Fe-CuNi ("J" type) thermocouple input.
- * Selectable On-Off or time proportional controls.
- * Adjustable proportional band.
- * Suitable for 8-pins octal connector.
- * Output relay is deenergised in the case of sensor failure.



Scale (°C)	Supply voltage	Control output	Order code
400	230V AC +10% -20%	Relay	AT411
	24V AC ±10%	Logic output	AT411-SSR
300	230V AC +10% -20%	Relay	AT411-24
	24V AC ±10%	Logic output	AT411-24-SSR
300	230V AC +10% -20%	Relay	AT411-300
	24V AC ±10%	Logic output	AT411-300-SSR
300	230V AC +10% -20%	Relay	AT411-300-24
	24V AC ±10%	Logic output	AT411-300-24-SSR

Accessories : **ERS08**, 8-pins connector for rail fitting (please order extended !)

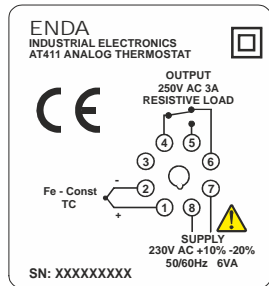


While cleaning the device, don't use solvents (thinner, benzine, acid etc.) or corrosive materials

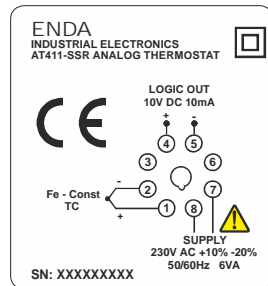


ATTENTION ! ENDA AT411 is intended for installation in control panels. Make sure that the device is used only for intended purpose. The electrical connections must be carried on by a qualified staff and must be according to the relevant locally applicable regulations. During an installation, all of the 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. The shielding must be grounded on the instrument side.

Terminal connection AT411



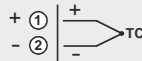
Terminal connection AT411-SSR



Logic output of the instrument AT411-SSR is not electrically insulated from the internal circuits. Therefore, when using a grounding thermo-couple, do not connect the logic output terminals to the ground.

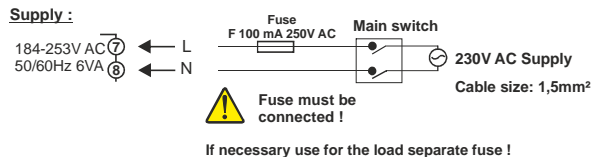
SENSOR Input:

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



- Note :
- 1)Cables for supply must be IEC60799 or IEC60245 conform.
 - 2)Main switch should be with in easy reach and should be indicated !

NOTE :



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 Rare panel : IP20
Height	Maximum 2000m

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

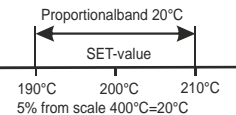
ELECTRICAL CHARACTERISTICS	
Supply voltage	230V AC +10% -20%, 50/60Hz or 24V AC ±10%, 50/60Hz
Power consumption	Maximum 2VA
Input type / connection	Thermocouple FeCuNi "J" type or Pt100 / 8-pins octal connector
Scale	0 ... 400°C/0 ... 300°C
Scaling resolution	5°C
Accuracy	±3% (of full scale)
EMC	EN 61326-1: 1997, A1: 1998, A2: 2001 (Performance criterion B is satisfied for EMC tests)
Safety requirements	EN 61010-1: 2001 (Pollution degree 2, overvoltage category II)

OUTPUT	
Control output	Relay: 250V AC, 3A (for resistive load), NO+NC or 10VDC/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	4°C (for On-Off control)

HOUSING	
Housing type	Suitable for flush-panel mounting.
Dimensions	W48xH48xD95mm (without connector)
Weight	Approx. 180g
Enclosure material	Self extinguishing plastics

The time proportional function controls a temperatur area near the SET value. Out of this temperaturrange the relay is "OFF" by over the SET value or "ON" under the SET value. If the processvalue approximated to SET value, the "ON" time from the relay will be shortly. The processtempérature will be prevent to swing or will be very small.



Application areas :

glass industry, chemistry and pharmacy, drinks industry, drying plant, paper industry, food industry, baker's plant, plastic industry

Dimensions

