


# Technical Specifications

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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	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 optional 9-30V DC SMPS module.
Power consumption	Max. 6VA
Wiring	2.5mm <sup>2</sup> Iik screw-terminal connections.
Scale	0 ... 9.99 or 0 ... 99.9 or 0 ... 999 minutes (selectable)
Sensitivity	±1 digit
Accuracy	±%4 for analog scale, ±%0,5 for timer display (of full scale)
Display	3 digits, 7.62mm, 7 segment red LED
Data Retention	EEPROM (Min. 10 years)
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)

INPUTS	
Start input	Contact input (during min. 5ms.)
Reset input	Contact input

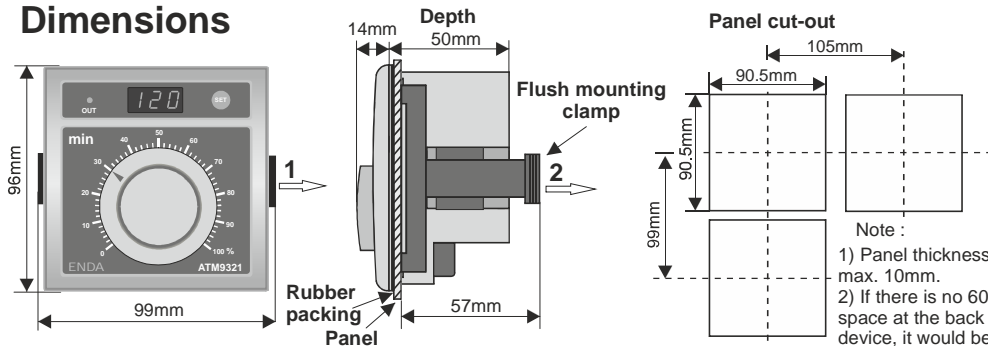
OUTPUTS	
Control output	Relay : 250V AC, 2A (for resistive load), NO+NC or 12V DC 20mA logic output
Life expectancy for relay	Mechanical 30.000.000 operation; electrical 300.000 operation.

CONTROL	
Output function	Mode A : Control output is energized after setting time is over. Mode B : Control output is energized during setting time.
A/D converter	10 bits

HOUSING	
Housing type	Suitable for flush-panel mounting.
Dimensions	W96xH96xD50mm
Weight	Approx. 250g (after packing the device)
Enclosure material	Self extinguishing plastics

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

## Dimensions



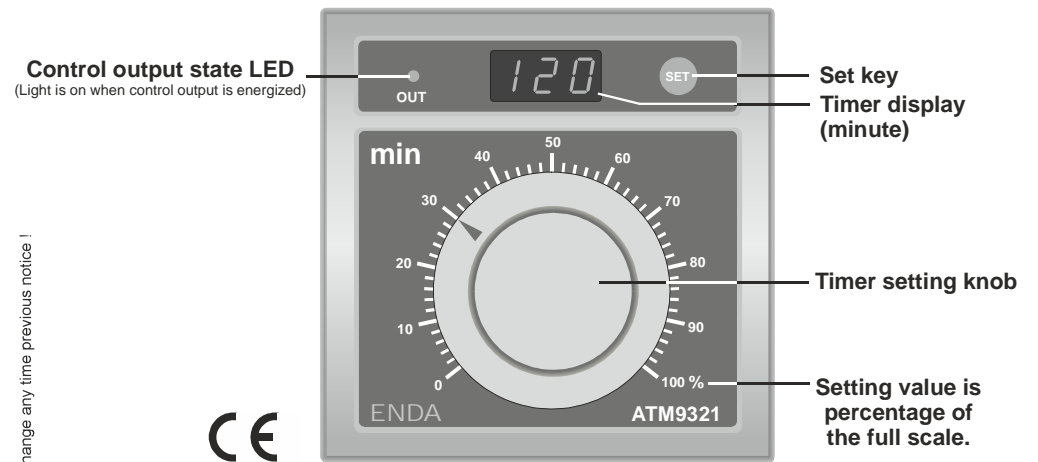
For removing mounting clamps: Push out the flush-mounting clamp in direction 1. Then, pull out the clamp in direction 2.



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 ATM9321 ANALOG TIMER with DIGITAL DISPLAY

Thank you for choosing ENDA ATM9321 analog timer.



- \* 96 x 96mm sized.
- \* Digital display for timer value.
- \* Selectable scale with 0 ... 9.99 or 0 ... 99.9 or 0 ... 999 minutes
- \* Selectable mode A (on-delay) and mode B (off-delay) output functions.
- \* Start by start input.
- \* Reset by reset input.
- \* Easy setting procedure.
- \* Having CE mark according to European Norms.

## 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 time control applications.

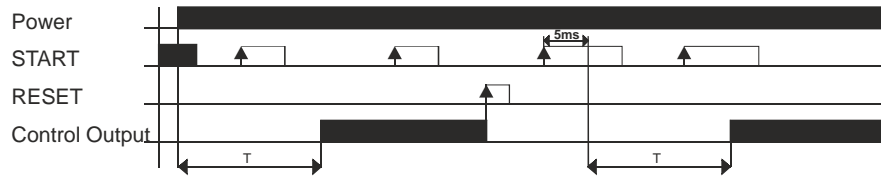
up to date: 09052019, modification reserved and can be change any time previous notice !

# Output Functions

T: Setting time (minute),  $T_a < T$

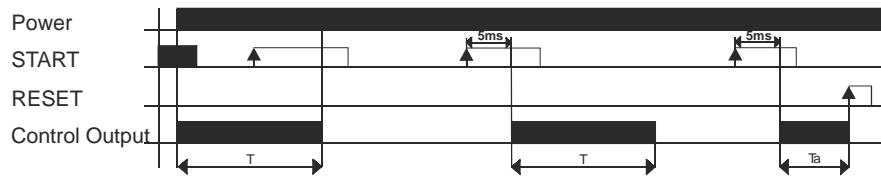
## MODE A

When START input is triggered, timer starts running. Control output is energized after setting time is over.



## MODE B

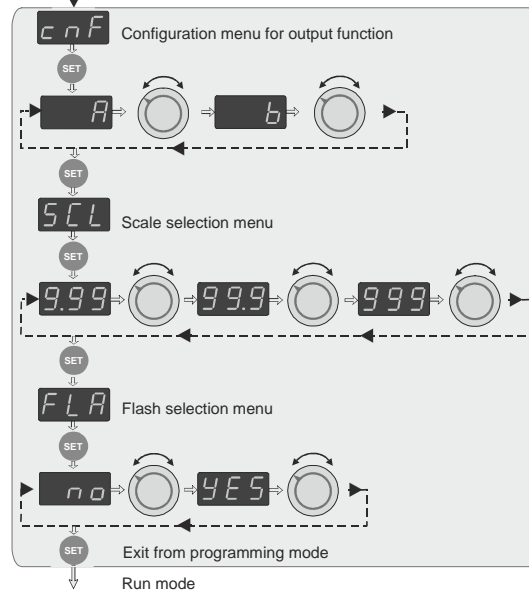
When START input is triggered, timer starts running and control output is energized. Control output is off after setting time is over.



NOTE: START is triggered by rising edge and it is activated after 5ms.

# Programming Diagram

If timer is energized by pressing set key, programming mode is entered.



### NOTE :

While key is being turned left or right, the parameters related to that menu appear. To confirm the parameter, press SET key.

### ERROR MESSAGE:

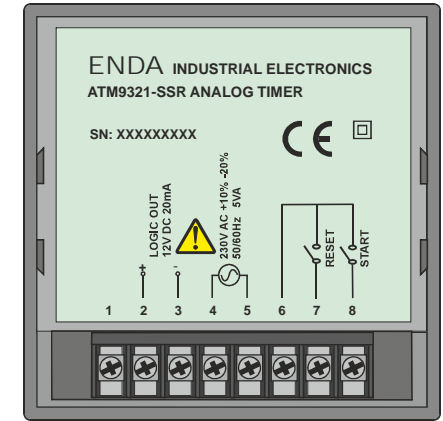
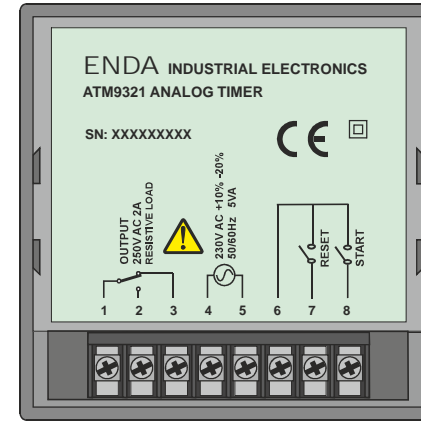
**Err**

If this message is seen, it means the device has a calibration error. In this case, the device should be sent to Sisel A.P. or to a nearest ENDA local representative for calibration and testing. When this message is seen, the control output is de-energized.

# Connection Diagram

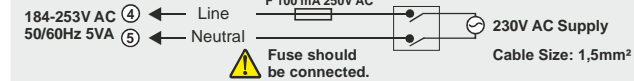


ENDA ATM9321 is intended for installation in control panels. Make sure that the device is used only for intended purpose. The shielding must be grounded on the instrument side. During an installation, all of the cables that are connected to the device must be free of energy. The device must be protected 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 installation and electrical connections must be carried on by a



### NOTE :

#### SUPPLY:



Holding screw 0.4-0.5Nm

Equipment is protected throughout by DOUBLE INSULATION.

- 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

Supply Voltage	Control Output	Order Code
230V AC +10% -20%	Relay	ATM9321
	Logic Output	ATM9321-SSR
24V AC ±10%	Relay	ATM9321-24
	Logic Output	ATM9321-24-SSR
9-30V DC SMPS	Relay	ATM9321-24DC
	Logic Output	ATM9321-24DC-SSR