



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 EI141 PROGRAMMABLE INDICATOR

Thank you for choosing ENDA EI141 indicator.

- \* 35x77mm sized.
- \* 4 digits display.
- \* Easy to use by front panel keypad.
- \* Display scale can be adjusted between -1999 and 4000.
- \* Decimal point can be adjusted between 1. and 3. digits.
- \* Measurement unit can be displayed.
- \* Selectable four different standard input types (0-20mA, 4-20mA, 0-1V, 0-10V)
- \* User can calibrate the device according to specified input type.
- \* Sampling time can be adjusted in four steps.
- \* Stores maximum and minimum measurement values.
- \* The maximum or the minimum values can be hold on the display.
- \* Current and voltage calibration can be performed.
- \* Parameter access protection on 3 levels.
- \* Easy connection by removable screw terminal.
- \* CE marked according to European Norms.



**RoHS  
Compliant**

Order Code : EI141 -

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

## TECHNICAL SPECIFICATIONS

ENVIRONMENTAL CONDITIONS	
Ambient/storage temperature	0 ... +50°C/-25 ... +70°C (With no icing)
Max. relative humidity	80% Relative humidity for temperatures up to 31°C, decreasing linearly to 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 gases.

ELECTRICAL CHARACTERISTICS	
Supply	230V AC +10% -20% or 12/24V AC ±10%, 50/60Hz or optional 9-30V DC / 7-24V AC ±10% SMPS.
Power consumption	Max. 7VA
Wiring	2.5mm <sup>2</sup> screw-terminal connections
Date retention	EEPROM (Min. 10 years)
EMC	EN 61326-1: 2006
Safety requirements	EN 61010-1: 2010 (Pollution degree 2, overvoltage category II, measurement category I)

Ei141 cannot be used if measurement category II, III or IV is required.

Input type	Measurement range		Measurement accuracy	Input empedance
	Min.	Max.		
0-1V DC voltage	0V	1.1V	±0,5% (of full scale)	Approx. 11kΩ (terminal voltage limits: min. = -2V, max. = 30V)
0-10V DC voltage	0V	14V	±0,5% (of full scale)	Approx. 11kΩ (terminal voltage limits: min. = -2V, max. = 30V)
0-20mA DC current	0mA	25mA	±0,5% (of full scale)	Approx. 5Ω (applicable terminal voltage is max. 50mA.)
4-20mA DC current	0mA	25mA	±0,5% (of full scale)	Approx. 5Ω (applicable terminal voltage is max. 50mA.)

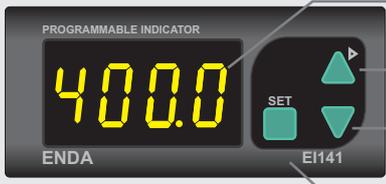


While the current measuring mode, input impedance becomes 5Ω . Therefore, in current mode, the device must not be connected any voltage input. Otherwise, the device is broken. While the device is running in the voltage measurement mode and if required to change to current measurement mode, then firstly the voltage inputs must be removed and after that, input type must be changed to one of the current measurement modes.

HOUSING	
Housing type	Suitable for flush-panel mounting according to DIN 43 700.
Dimensions	W77xH35xD71mm
Weight	Approx. 250g (after packing)
Enclosure material	Self extinguishing plastics

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

# TERMS



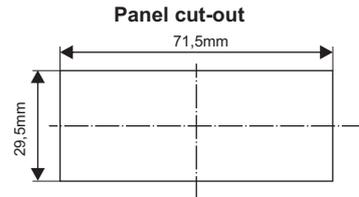
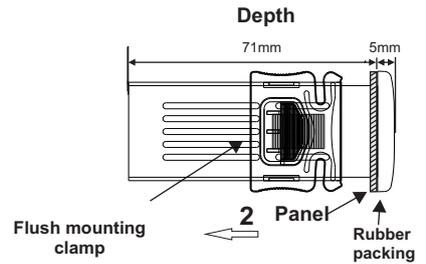
- 1) Measurement value, measurement unit, the minimum or the maximum measured values are displayed in the run mode.  
Parameter name, parameter value or a user defined unit is displayed in the programming mode.
- 2) Increment or parameter selection key in the programming mode.  
Used for displaying measurement unit or the max. measured value in the run mode.
- 3) Decrement or parameter selection key in the programming mode.  
Used for making the minimum and the maximum measured values equal in the run mode.
- 4) Used for selecting run and programming modes, adjusting parameters, displaying measurement unit or making the minimum and the maximum measured values equal.

( 1 ) Digital display	4 digits 7 segment yellow LED display
Character height	12.5mm
( 2 ),( 3 ),( 4 ),( 5 ) Keypad	Micro switch

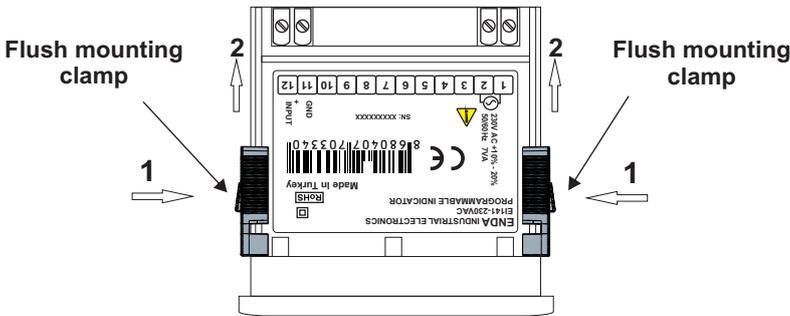
# DIMENSIONS



**For removing mounting clamps ;**  
 - Push flush mounting clamps in direction 1 as shown in the figure below.  
 Then pull out the clamps in direction 2 .



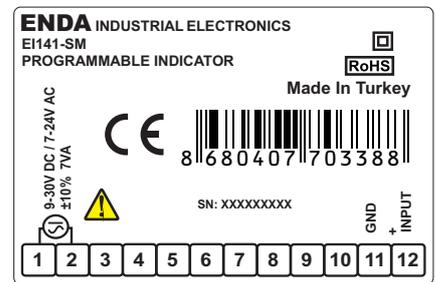
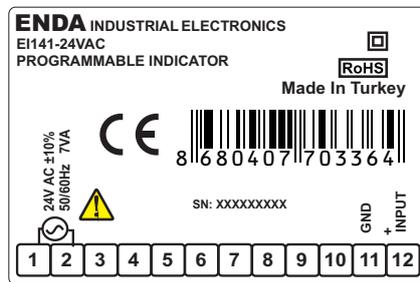
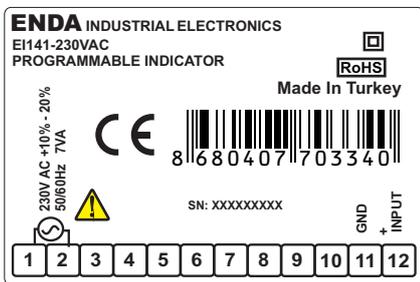
**Note :** 1) Panel thickness should be maximum 7 mm.  
 2) There must be at least 60mm free space behind the device, otherwise it would be difficult to remove it from the panel.



# CONNECTION DIAGRAM



**ENDA EI141** 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 electrical power. The device must be protected against inadmissible humidity, vibrations, severe soiling. 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 out by a qualified staff and must be according to the relevant locally applicable regulations.



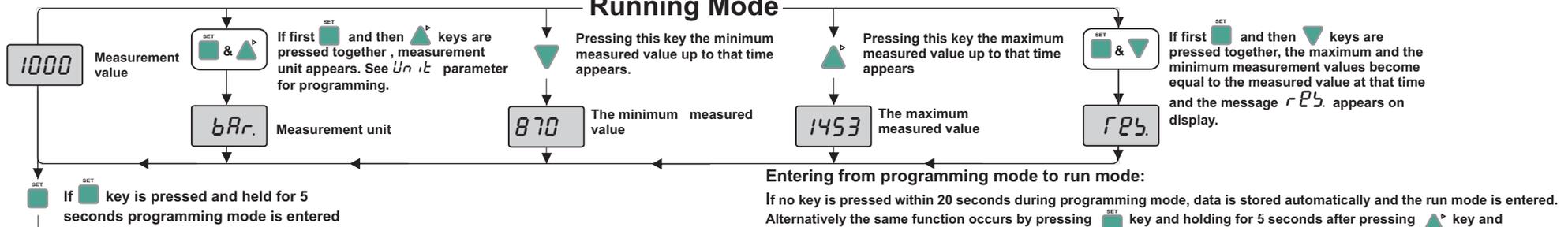
## NOTE :

### SUPPLY :



**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.

# Running Mode



# Programming Mode

