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 EC2401 UP / DOWN COUNTER

Thank you for choosing **ENDA EC2401** Up / Down Counter devices.

- 35x77 Sized.
- Easy to use.
- Input frequency selection.
- Selectable parameter security..
- CE Marked according to European Norms.

Order Code : EC2401 - ☐☐

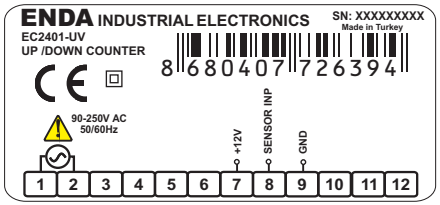
1 - Supply Voltage
UV.....90-250V AC

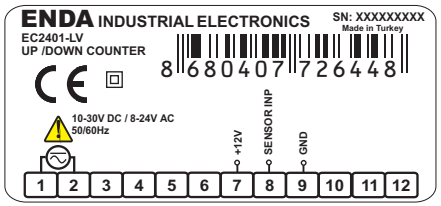
LV.....10-30V DC / 8-24V AC

CE

RoHS Compliant

ENDA EC2401 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.

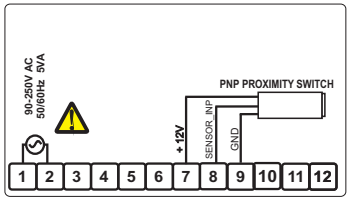


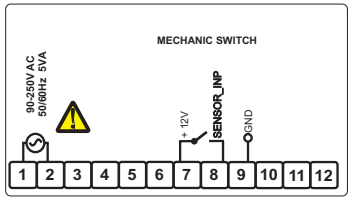


Equipment is protected throughout by DOUBLE INSULATION.

Holding screw 0.4-0.5Nm

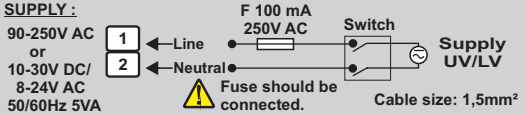
CONNECTION SAMPLES





Note :
The NPN PROXIMITY SWITCH connection is applicable as same as PNP PROXIMITY SWITCH.

NOTE :
SUPPLY :

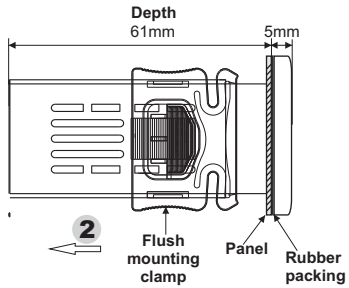


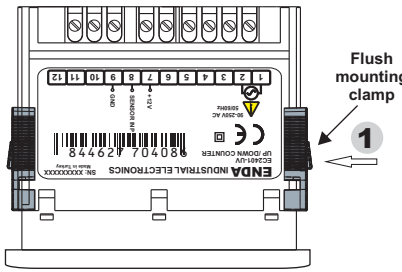
Note :
1) Mains supply cords shall meet the requirements of IEC 60227 or IEC 60245.
2) In accordance with the safety regulations, the power supply switch shall bring the identification of the relevant instrurment and it should be easily accessible by the operator.

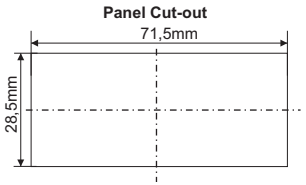
ENVIRONMENTAL CONDITIONS	
Ambient / Storage Temperature	0 ... +50°C/-25 ... +70°C (with no icing)
Relative Humidity	80% Relative humidity for temperatures up to 31°C, decreasing linearly to 50% at 40°C.
Protection Class	According to EN 60529 ; Front Panel : IP65, Rear Panel : IP20
Height	Max.2000m
KEEP AWAY device from exposed to corrosive, volatile and flammable gases or liquids and DO NOT USE the device in similar hazardous locations.	
ELECTRICAL CHARACTERISTICS	
Supply	90-250V AC 50/60Hz ;10-30V DC/ 8-24V AC SMPS
Power Consumption	Max. 5VA
Wiring	2.5mm² screw-terminal connections
Accuracy	± %0.01
Scale	4 Digits, 12.5mm, 7 Segment Red Display LED (V2 Code : Blue Display).
EMC	EN 61326-1: 2013
Safety Requirements	EN 61010-1: 2010 (Pollution degree 2, overvoltage category II).
INPUTS	
Sensor Input	5 to 30V pulses
Measurement Frequency	Measures frequencies between 0.07Hz and 10000Hz.
OUTPUT	
Sensor Supply Output	12V DC, Max. 30mA (unregulated)
HOUSING	
Housing Type	Suitable for flush-panel mounting.
Dimensions	W77xH35xD61mm
Weight	Approx. 190g (after packing the device)
Enclosure Material	Self extinguishing plastics
Avoid any liquid contact when the device is switched on. DO NOT clean the device with solvent (thinner, gasoline, acid etc.) and / or abrasive cleaning agents.	

DIMENSIONS

To removing mounting clamps :
- Push the flush-mounting clamps in direction 1 as shown in the figure.
- And, pull out the clamp in direction 2







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

sisel
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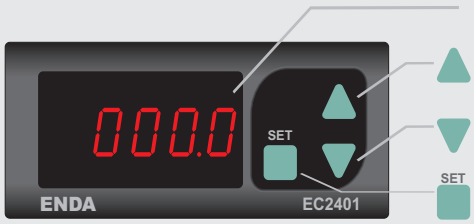

Indicates measured value and set values in “Running Mode”.
Indicates the parameters and names in “Programming Mode”.

Increment key in “Running Mode” and “Programming Mode”.
Parameter selection key in “Programming Mode”.
By pressing continuously, parameter value increases rapidly.

Decrement key in “Running Mode” and “Programming Mode”.Parameter selection key in “Programming Mode”.
By pressing continuously, parameter value decreases rapidly.

Reset key in “Running Mode”.
Parameter set key in “Programming Mode”

1.Programming Mode

000.0 Measurement value → ▼▲ By pressing ▲▼ keys together for 2 seconds, “Programming Mode” is enterd.

2.Changing the Parameter Values

000.0 Measurement value → ▼▲ [mod Programming Mode → ▼▲ → dn / uP

While "Programming Mode", by pressing to SET key for 2 seconds, the parameter value displayed and can be changed by using ▼▲ navigation keys. If no operation is performed for 3 seconds or by pressing to SET key, the current parameter name will be displayed. If ▼▲ keys are pressed during the parameter name displayed, "Running Mode" will be entered.

3.Using the Keypads.

▲ Provides access to the next parameter in "Programming Mode and increases the selected parameter value". If pressed continuously, the parameter value increases rapidly.

▼ Provides access to the previous parameter in "Programming Mode and decreases the selected parameter value". If pressed continuously, the parameter value decreases rapidly.

SET Provides to reset the counter value in "Running Mode".
Provides to set the selected parameter value in "Programming Mode".

⚠ If the Counter ([mod) mode set to (uP), the Counter value increments by counting up to the value of the (uP) parameter.
If the Counter ([mod) mode set to (dn), the Counter value decrements by counting up to the value of the (dn) parameter.
If the counter value is less than the value of the (dn) parameter, the counter value will be synchronized to the value of the (dn) parameter.

DEVICE PARAMETERS

Parameter Name	Description	Min.	Max.	Unit	Default Value
FrEQ	Input frequency selection. 0 = 50Hz, 1 = 100Hz, 2 = 500Hz, 3= 1KHz, 4 = 5KHz, 5 = 10KHz	0	5		0
[mod	Counting direction parameter. uP = Up, dn = Down	dn	uP		uP
uP	Up direction counting.	0	9999		1000
dn	Down direction counting.	0	9999		1000

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