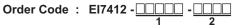
Read this document carefully before using this device. The guarantee will be expired by device damages if you don't attend to the directions in the user manual. Also we don't accept any compensations for personal injury, material damage or capital disadvantages.

ENDA E17412 PROGRAMMABLE INDICATOR WITH RELAY

Thank you for choosing ENDA EI7412 INDICATOR.

- * 72x72mm sized.
- * 4 digits display.
- * On Off control.
- * Relays for Out and Alarm control.
- * Upper and Lower Set value limits can be configured.
- * Decimal point can be adjusted between 1. and 3. digits.
- * Display scale can be adjusted between -1999 and 4000.
- * 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.
- * Selectable control option below and above the set value.
- * Selectable independent, deviation or band alarms.
- * Maximum and minimum values are registered and can be hold on the display.
- * Current and voltage calibration can be performed.
- * Selectable parameter access protection.
- * CE marked according to European Norms.



1 - Supply Voltage 230VAC...230V AC

24VAC.....24V AC SM.....9-30V DC / 7-24V AC 2 - Auxilary Supply OUT

AS24.....24V DC 50mA AS12.....12V DC 50mA

AS08.....8V DC 50mA

AS05.....5V DC 50mA None......No auxilary supply out









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%, 50/60Hz or 24V AC ±10%, 50/60Hz or optional 9-30V DC / 7-24V AC ±10% SMPS	
Power consumption	Max. 7VA	
Wiring	2.5mm² 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)	
	EI7412 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. 11k Ω (terminal voltage limits: min. = -2V, max. = 30V)
0-10V DC voltage	0V	14V	±0,5% (of full scale)	Approx. 11k Ω (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 50. 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

OUTPUTS	
Auxilary power supply	All auxilary power supplies supply maximum 50mA (Regulated and isolated)
Out	Relay: 250V AC, 8A (for resistive load), NO; 1/2 HP 240V AC Cos⊕ = 0.4 (for inductive load)
Alarm	Relay: 250V AC, 8A (for resistive load), NO; 1/2 HP 240V AC Cos⊕ = 0.4 (for inductive load)
Life expectancy for relay	Mechanical 30.000.000 operation; 100.000 operation at 250V AC, 8A resistive load.

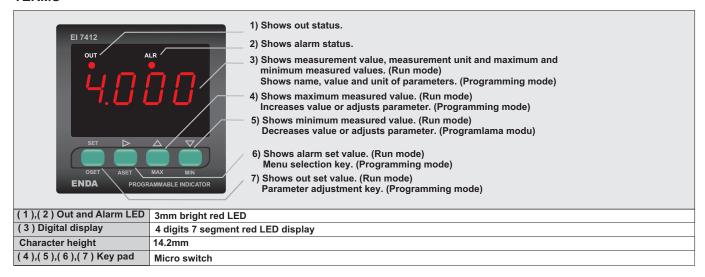
CONTROL		
Control type	Single set-point and alarm control	
Control algorithm	On-Off control	
Hysteresis	Adjustable between 1 200	

HOUSING		
Housing type	Suitable for flush-panel mounting according to DIN 43 700.	
Dimentions	W72xH72xD97mm	
Weight	Approx. 350g (after packaging)	
Enclosure material	Self extinguishing plastics.	
While cleaning the device solvents (thinner henzine acid etc.) or corrosive materials must not be used		

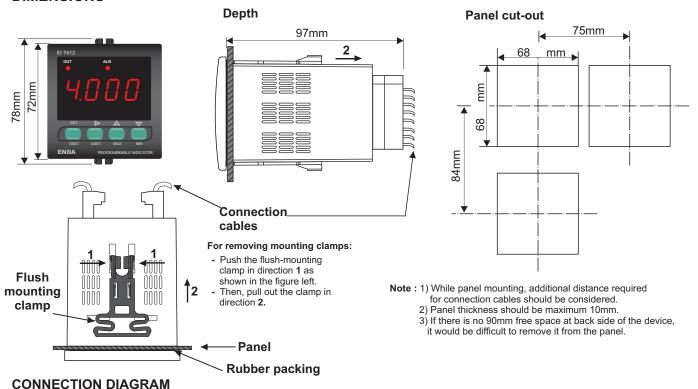
SİSEL MÜHENDİSLİK ELEKTRONİK SAN. VE TİC. A.Ş. Şerifali Mah. Barbaros Cad. Kutup Sok. No:18 Y.Dudullu 34775 - ÜMRANİYE/İSTANBUL-TURKEY

Tel: +90 216 499 46 64 Pbx. Fax: +90 216 365 74 01 url : www.enda.com.tr

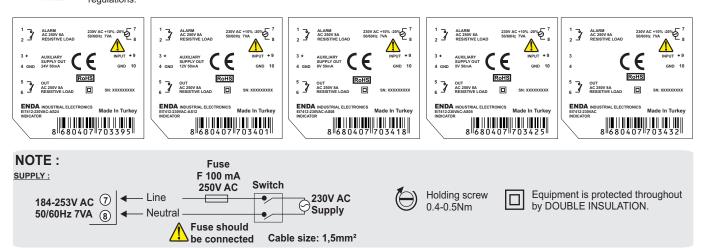
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DIMENSIONS

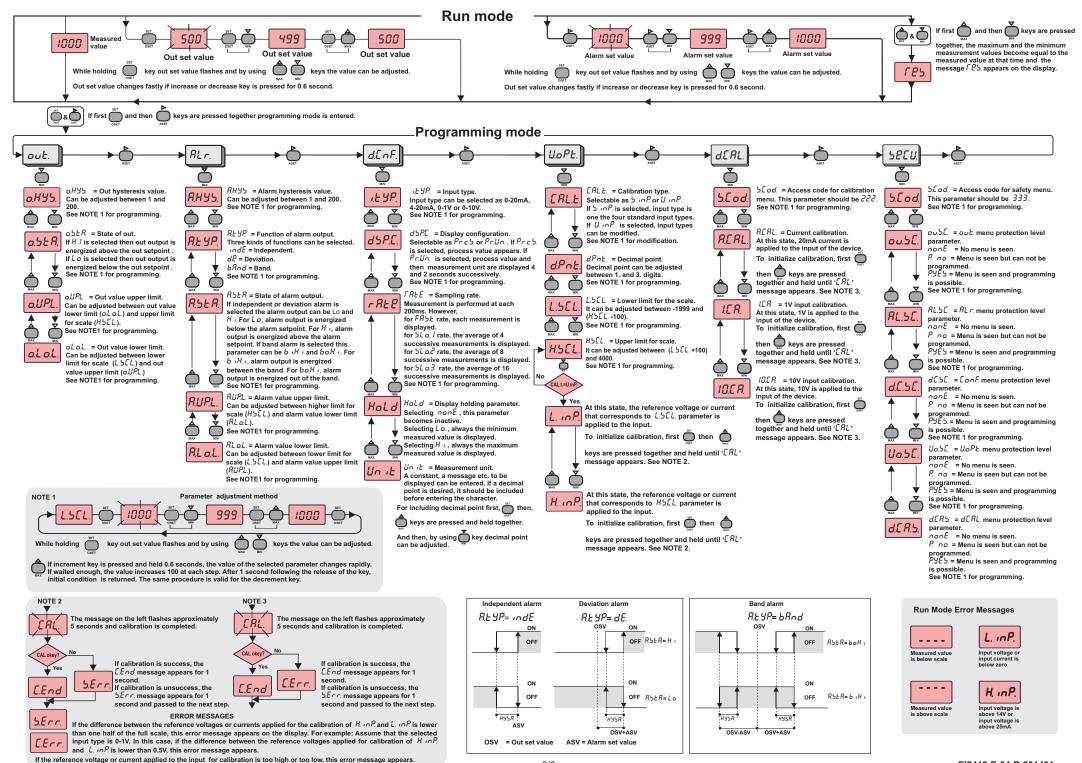


ENDA EI7412 is intended for installation in control panels. Make sure that the device is used only for intended purpose. The shielding must be grounded on the instrument side. During an installation, all of the cables that are connected to the device must be free of energy. The device must be protected against inadmissible humidity, vibrations, severe soiling. 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 qualified staff and must be according to the relevant locally applicable regulations.



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.



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