Read this document carefully before using this device. The guarantee will be expired by device demages 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 EID7422 DIFFERENTIAL INDICATOR

Thank you for choosing **ENDA EID7422** Differential Indicator Devices.

- 72x72mm sized.
- 4 Digits, Dual Display.
- Display scale can be adjusted between -1999 and 4000.
- Decimal point can be placed between 1st. and 3rd. digits (or OFF).
- Adjustable 2 Setpoint value can be assigned.
- 2 selectable output controls.
- Control option below and above set value.
- Measuring ranges can be set for sensors with analogue output.
- Internal isolated supply output for the sensor.
- 0 ~ 20mA / 0 ~ 10V Analogue input for sensors with analogue output.
- CE Marked according to European standards.

Order Code : EID7422 - ☐☐☐
1

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

CE RoHS Compliant

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.
Rated Pollution Degree	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.**

ELEKTRİKSEL ÖZELLİKLER	
Supply	230V AC +%10 -%20 , 50/60Hz or 9-30V DC /7-24V AC ±%10 SMPS (Specify at Order).
Power Consumption	Max. 5.4VA
Wiring	2.5mm² screw-terminal connections.
Input-1 Range	0 ~ 20mA /0 ~ 10V can be selected for analogue output sensors.
Input-2 Range	0 ~ 20mA /0 ~ 10V can be selected for analogue output sensors.
EMC	EN 61326-1: 2013
Safety Requirements	EN 61010-1: 2010 (Pollution degree 2, Overvoltage category II, Measurement category I)

Analogue Input Type	Measurement Range		Measurement Accuracy	Input Impedance
	Min.	Max.		
0-1V DC Voltage	0V	1.1V	±%0,5 (at full scale)	Approx. 100kΩ
0-10V DC Voltage	0V	12V	±%0,5 (at full scale)	Approx. 100kΩ
0-20mA DC Current	0mA	25mA	±%0,5 (at full scale)	Approx. 10Ω
4-20mA DC Current	0mA	25mA	±%0,5 (at full scale)	Approx. 10Ω

⚠ **While current measuring mode, input impedance becomes 10Ω. Therefore, in the current mode, the device must not be connected to 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, the input type must be changed to one of the current measurement modes.**

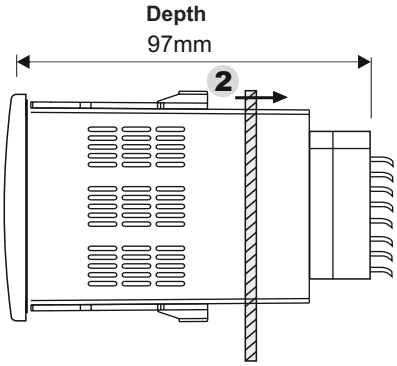
OUTPUTS	
15VDC Output	50mA 15VDC Output for Sensor Supply.
Life Expectancy for Relay	Mechanical 30.000.000 operation; 100.000 operation at 250V AC, 10A resistive load.

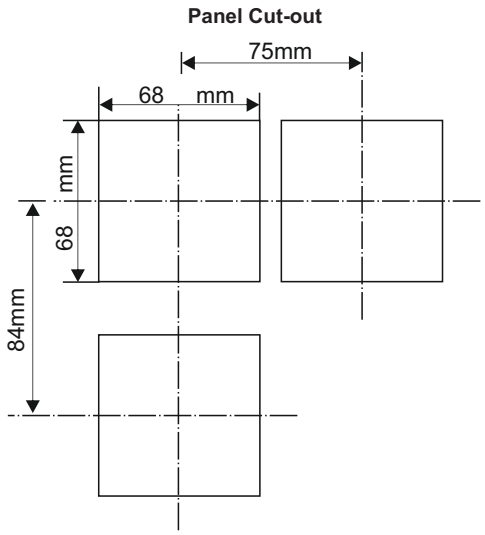
HOUSING	
Housing Type	Suitable for flush-panel mounting according to DIN 43 700.
Dimentions	W72xH72xD97mm
Weight	Approx. 350g (after packaging)
Enclosure Material	Self extinguishing plastics.

⚠ **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.

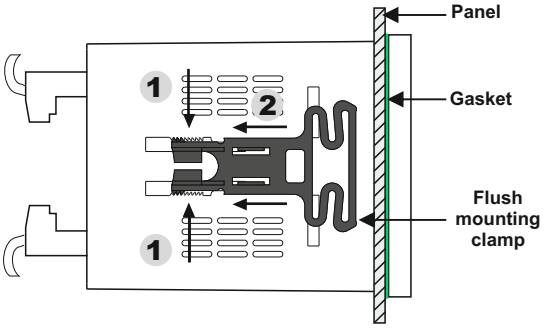
sisel
SİSEL MÜHENDİSLİK ELEKTRONİK SAN. VE TİC. A.Ş.
Şerifali Mah. Barbaros Cad. No:18 Y.Dudullu 34775
ÜMRANİYE/İSTANBUL-TURKEY
Tel : +90 216 499 46 64 Pbx. Fax : +90 216 365 74 01
url : www.enda.com.tr

DIMENSIONS



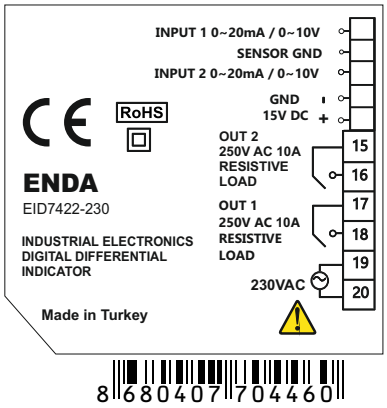


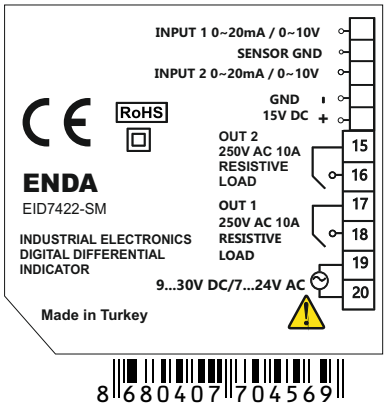
To removing mounting clamps ;
- Push the flush-mounting clamps in direction **1**
- Pull out the clamps in direction **2**

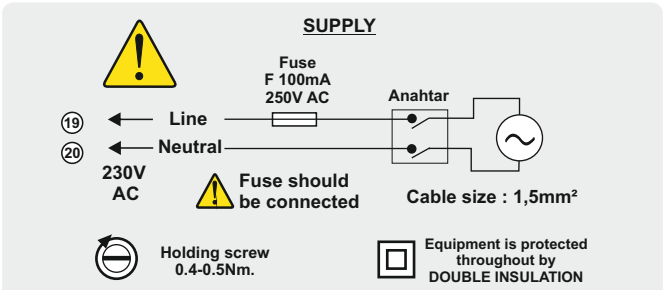


Note :
1) While panel mounting, additional distance required for connection cables should be considered.
2) Panel thickness should be maximum 10mm.
3) If there is no 90mm free space at back side of the device, it would be difficult to remove it from the panel.

CONNECTION DIAGRAM







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.

ENDA EID7422 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.

FRONT PANEL

Output Relay 1
Output Relay 2

In "Running Mode", indicates the calculated difference value.
In "Programming Mode", indicates the parameter name.

In "Running Mode", indicates the adjusted parameter value.
In "Programming Mode", indicates the parameter value or unit.

In "Running Mode", switches off the control outputs.
In "Programming Mode", used for decreases or changes the parameter.

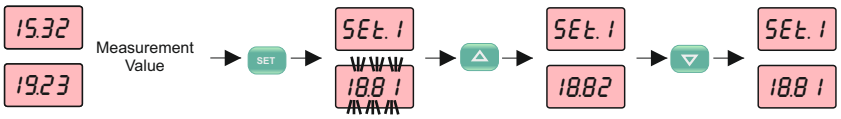
In "Programming Mode", used for increases or changes the parameter.

In "Running Mode", changes the SET2 set value.

In "Running Mode", changes the SET1 set value.
In "Programming Mode", indicates the parameter value.

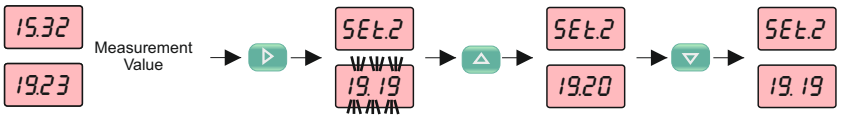
"Running Mode" refers to home/main display.
"Programming Mode" refers to the display that programming operations are performed.

Displaying and Changing the SET1 Value



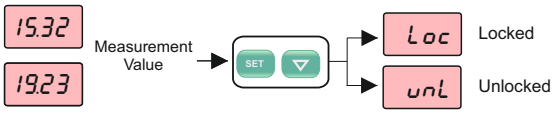
By pressing the SET key in "Running Mode", SET1 value is displayed for 3 seconds and during this period, SET1 value can be changed by using ▲ ▽ navigation keys.
If no operation is performed for 3 seconds or one of the SET key is pressed, the adjusted value stored and returned to "Running Mode".

Displaying and Changing the SET2 Value



By pressing the SET key in "Running Mode", SET2 value is displayed for 3 seconds and during this period, SET2 value can be changed by using ▲ ▽ navigation keys.
If no operation is performed for 3 seconds or one of the SET key is pressed, the adjusted value stored and returned to "Running Mode".

Tuşların Kilitlenip Açılması



If SET ▽ keys are pressed together for 2 seconds during "Running Mode", Loc message displayed and keys are locked. If SET ▽ keys are pressed together for 2 seconds while keys are locked, unL message displayed and keys are unlocked. If any key is pressed during keys are locked, Loc message displayed. While the keys are locked, SET1 and SET2 values can be displayed but no change can be performed.

Activating / Deactivating the Control Outputs

If ▽ key is pressed for 2 seconds in "Running Mode", C.dIS message displayed and the control outputs deactivated and the device runs as an indicator. If ▽ key is pressed for 2 seconds during the outputs inactive, C.Enb message displayed and the control operation continues to process.

Returning to Default Settings

If the device is power-up while holding down to ▽ key, dPAr message displayed and the device restarts with default settings.

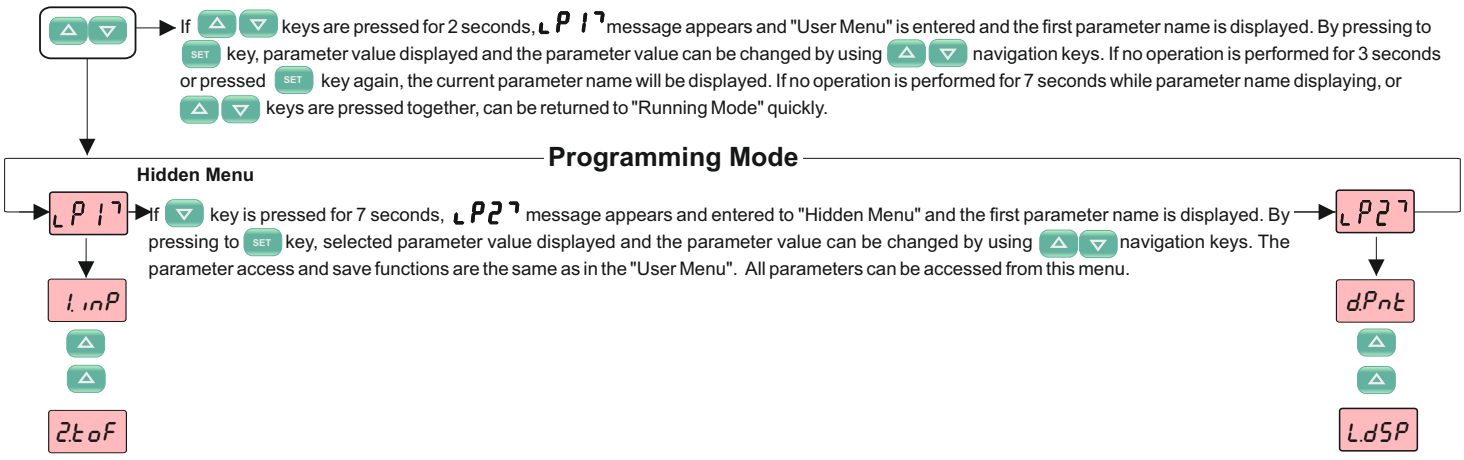
Displaying the Revision Info

If SET ▲ ▽ keys are pressed together during "Running Mode, revision information will be displayed. E.g : r.001

PROGRAMMING THE DEVICE

EID7422 has two different menus as "Hidden" and "User". "User Menu" contains frequently used parameters and the "Hidden Menu" contains all of the parameters. Parameters can be transferred between menus. If SET ▽ keys are pressed for 2 seconds in "Hidden Menu", the parameter can be transferred to "User Menu". Up to 10 parameters can be transferred to "User Menu". If the same keys are pressed for 2 seconds in "User Menu", the current parameter will be removed from "User Menu".

User Menu



PARAMETER LIST

CONFIGURATION PARAMETERS		MIN.	MAX.	UNIT	DEFAULT
dPnt	Decimal point selection.	0	0.000		0
L.dSP	Bottom display selection (oFF: Off, inP 1: 1st Input Value , inP2: 2ndInput Value , SEt 1: SET1 Value, SEt2: SET2 Value)	oFF	SEt2		oFF
OUTPUT 1 CONTROL PARAMETERS					
1. inP	Analogue input type for Input 1. (0-20:0~20mA, 4-20: 4~20mA, 0- 10:0~10V, 1-5:1~5V)	0-20	1-5	**mA / V**	0-20
1.uPL	Upper limit value for Input 1.	1.LoL	9999		2500
1.LoL	Lower limit value for Input 1.	-999	1.uPL		0
1.HYS	Hysteresis set value for Output 1.	1	200		20
1.oFF	Offset value for Output 1.	-200	200		0
1.cnt	Control selection for Output 1 (Lo:Output is active if the difference value is less than or equal to SET1., Hi:Output is active if the difference value is greater than or equal to SET1.)	Lo	Hi		Hi
1.Pon	Required delay time in order to set Output 1 to active state after power-up.	00:00	99:00	**min:sec**	1:00
1.ton	Output relay-on delay time for Output 1.	00:00	99:00	**min:sec**	1:00
1.toF	Output relay-off delay time for Output 1.	00:00	99:00	**min:sec**	1:00
OUTPUT 2 CONTROL PARAMETERS					
2. inP	Analogue input type for Input 2. (0-20:0~20mA, 4-20: 4~20mA, 0- 10:0~10V, 1-5:1~5V)	0-20	1-5	**mA / V**	0-20
2.uPL	Upper limit value for Input 2.	2.LoL	9999		2500
2.LoL	Lower limit value for Input 2.	-999	2.uPL		0
2.HYS	Hysteresis set value for Output 2.	1	200		20
2.oFF	Offset value for Output 2.	-200	200		0
2.cnt	Control selection for Output 2 (Lo:Output is active if the difference value is less than or equal to SET2., Hi:Output is active if the difference value is greater than or equal to SET2.)	Lo	Hi		Hi
2.Pon	Required delay time in order to set Output 2 to active state after power-up.	00:00	99:00	**min:sec**	1:00
2.ton	Output relay-on delay time for Output 2.	00:00	99:00	**min:sec**	1:00
2.toF	Output relay-off delay time for Output 2.	00:00	99:00	**min:sec**	1:00

NOTE :

- If the measured difference value is negative, the device may shift, turn OFF or ON the decimal places when the scale is not sufficient.
- If the decimal place is changed after the parameters have been set, the parameters must be checked again.