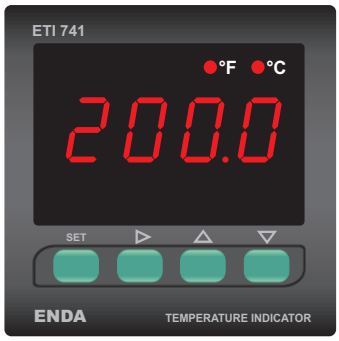
Read this document carefully before using this device. The guarantee will be expired by damaging of the device if you don't attend to the directions in the user manual. Also we don't accept any compensations for personal injury, material damage or capital disadvantages.

ENDA ETI741 TEMPERATURE INDICATOR

Thank you for choosing ENDA ETI741 temperature indicator.



*** 72 x 72mm sized.**
*** 4 digits display.**
*** Selectable sensor type.**
*** Input offset feature.**
*** Parameter access protection on 3 levels.**
*** Programming just by using keypad.**
*** CE marked according to European Norms.**
*** Measurement at °C and °F units.**

CE RoHS Compliant

TECHNICAL SPECIFICATIONS

Sensor type		Temperature range °C	Temperature range °F	Accuracy
J (Fe-CuNi) Thermocouple	EN 60584	0... 600°C	+32... +1112°F	± 0,2% (of full scale) ± 1 digit
K (NiCr-Ni) Thermocouple	EN 60584	0...1200°C	+32... +2192°F	± 0,2% (of full scale) ± 1 digit
T (Cu-CuNi) Thermocouple	EN 60584	0... 400°C	+32... +752°F	± 0,2% (of full scale) ± 1 digit
S (Pt10Rh-Pt) Thermocouple	EN 60584	0...1600°C	+32... +2912°F	± 0,2% (of full scale) ± 1 digit
R (Pt13Rh-Pt) Thermocouple	EN 60584	0...1600°C	+32... +2912°F	± 0,2% (of full scale) ± 1 digit
Pt 100 Resistance Thermometer	EN 60751	-200...600°C	-328... +1112°F	± 0,2% (of full scale) ± 1 digit
Pt 100 Resistance Thermometer	EN 60751	-99.9...300.0°C	-99.9...+543.0°F	± 0,2% (of full scale) ± 1 digit

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 : IP65 Rear panel : IP20
Height	Max. 2000m

Do not use the device in locations subject to corrosive and flammable gases.

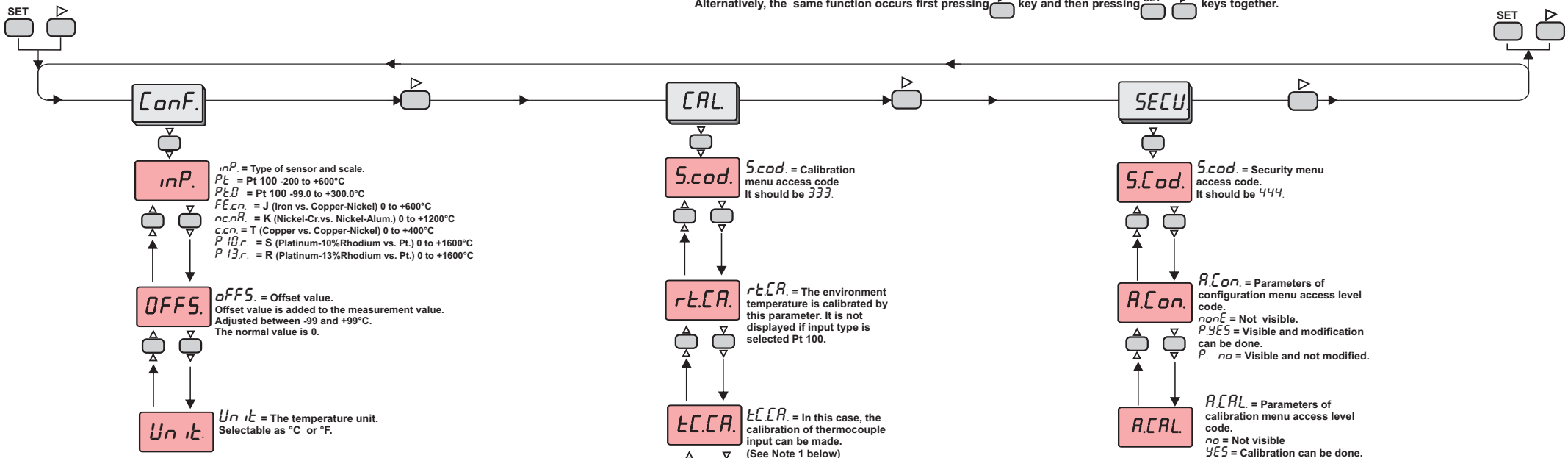
ELECTRICAL CHARACTERISTICS	
Supply	230V AC +10% -20%, 50/60Hz or 24V AC ±10%, 50/60Hz or optional 9-30V DC / 7-24V AC ±10% SMPS
Power consumption	Max. 7VA
Wiring	2.5mm² screw-terminal connections
Line resistance	For thermocouple max.100ohm, for 3 wired Pt 100 max. 20ohm
Data retention	EEPROM (minimum 10 years)
EMC	EN 61326-1: 1997, A1: 1998, A2: 2001 (Performance criterion B for standard EN 61000-4-3)
Safety requirements	EN 61010-1: 2001 (Pollution degree 2, overvoltage category II)

HOUSING	
Housing type	Suitable for flush-panel mounting according to DIN 43 700.
Dimensions	W72xH72xD97mm
Weight	Approx. 395g (after packing)
Enclosure material	Self extinguishing plastics.

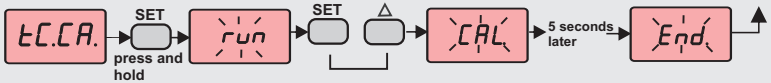
While cleaning the device, solvents (thinner, benzine, acid etc.) or corrosive materials must not be used.

if ▷ key is pressed while holding SET key, the programming mode is enabled.

Entering from the programme mode to the run mode:
If no key is pressed within 20 seconds during programming mode, the data is stored automatically and the normal mode is entered.
Alternatively, the same function occurs first pressing ▷ key and then pressing SET ▷ keys together.



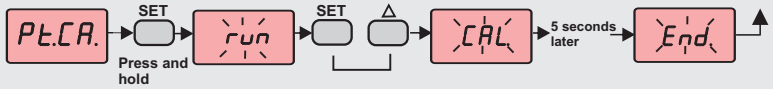
NOTE 1



When holding SET key the message run flashes. In this case if ▷ key is pressed, calibration for TC input starts. Then the messages C.Str, a four digit number and CAL are seen in sequence on the lower display. After 5 seconds End message is seen. If the four digit number is 4999 or 5000 or 500 !, it means TC calibration was successful. Otherwise calibration procedure should be repeated.

⚠ Before starting calibration procedure, 50.000mV referance voltage must be applied to the thermocouple inputs.

NOTE 2



When holding SET key the message run flashes. In this case if ▷ key is pressed, calibration for Pt 100 input starts. The messages C.Str, a four digit number and CAL are seen in sequence on the lower display. After 5 seconds End message is seen. If the four digit number is 3 190 or 3 19 ! or 3 192, this means Pt 100 calibration was successful. Otherwise, Calibration procedure should be repeated.

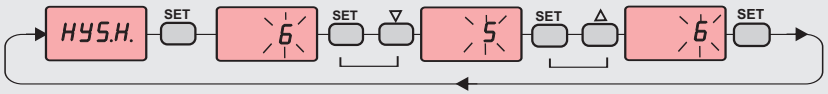
⚠ Before starting calibration procedure, make a connection between terminal 8 and 9. Then connect a 212.052ohm referance resistor should be connected between terminal 9 and terminal 10 or apply 300 °C from Pt-100 calibrator.

⚠ Values on the displays are default values.

Error Messages

----	____	PFA	PSC
Temperature value is higher than the end of the scale	Temperature value is higher than the end of the scale	Temperature sensor is broken or over temperature	Pt 100 or a sensor line is short circuited

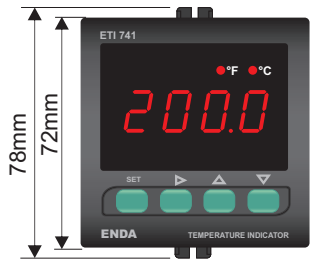
Modification of Parameter

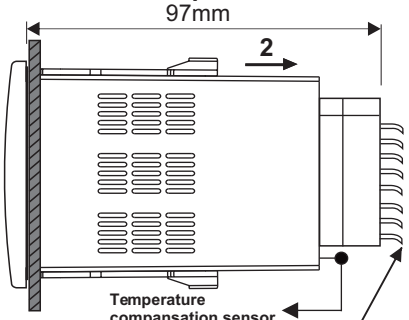


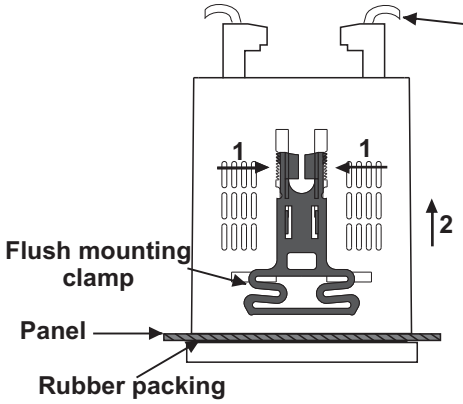
When holding SET key, the value of parameter flashes and using ▽ △ keys the requested value can be adjusted.

If ▷ key is pressed and held 0.6 seconds, the value of the selected parameter changes rapidly. If waited enough, the value increases 100 at each step. After 1 second following the release of the key, initial condition is returned. The same procedure is valid for the decrement key.

DIMENSIONS



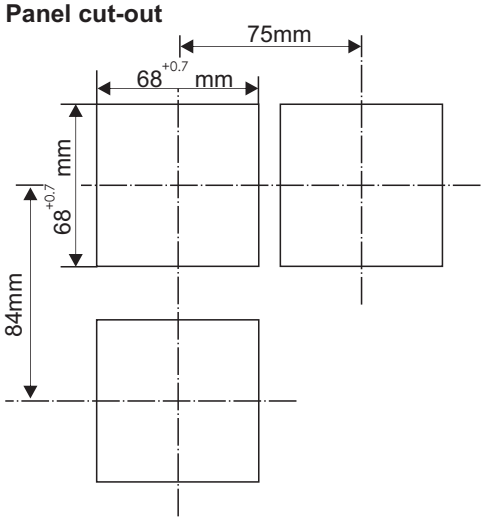




For removing mounting clamps:

- Push the flush-mounting clamp in direction **1** as shown in the figure left.
- Then, pull out the clamp in direction **2.**

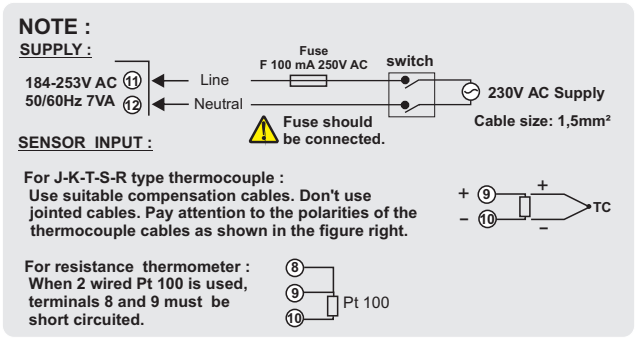
Panel cut-out

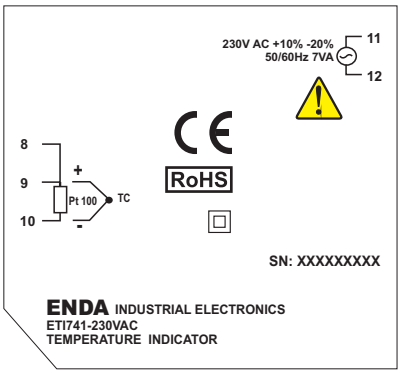


Note 1) While panel mounting, additional distance required for connection cables should be considered.
2) Panel thickness should be maximum 10mm.
3) If there is no 90mm free space at back side of the device, it would be difficult to remove it from the panel.

CONNECTION DIAGRAM

ENDA ETI741 is intended for installation in control panels. Make sure that the device is used only for intended purpose. The installation and electrical connections must be carried on 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 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 shielding must be grounded on the instrument side.





Note : 1) Mains supply cords shall meet the requirements of IEC 60799 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.

Holding screw 0.4-0.5Nm

Equipment is protected througout by DOUBLE INSULATION.

Order Code : ETI741-□□□□□□
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Supply Voltage
230VAC...230V AC
24VAC.....24V AC
SM.....9-30V DC / 7-24V AC

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