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 EHTC7425 HIGROSTAT & THERMOSTAT

Thank you for choosing **ENDA EHTC7425 Higrostat & Thermostat** devices.

*** 72 x 72mm sized.**
*** 4 Digits double display.**
*** Easy to use by front panel keypad.**
*** Heating or cooling control can be selected.**
*** Humidification or drying control can be selected.**
*** Heating can be controlled between -40.0 Cº and +60.0 Cº.**
*** Humidification can be controlled between %0.0 and %100.0.**
*** Power supply output for sensor (50mA/15VDC).**
*** 2 x 0-20 mA analog inputs.**
*** Indicates decimal digits with 0.1% measurement accuracy.**
*** Time adjustable fan control.**
*** 2 x Time adjustable relay control for incubation rotating process.**
*** Measured values can be setted with buzzer alarm feature.**
*** CE marked according to European Norms.**



Order Code : EHTC7425-UV

RoHS Compliant

TECHNICAL SPECIFICATIONS

ENVIRONMENTAL CONDITIONS	
Ambient/storage temperature	0 ... +50°C/-25 ... +70°C (with no icing)
Max. relative humidity	Max. humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity 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	90-250V AC/DC %10, 50/60Hz SMPS
Power consumption	Max. 7VA
Wiring	1.5mm² and 2.5mm² screw-terminal connections
Temperature input range	0-20mA: Temperature measuring input for scale is between -40,0Cº and 60.0Cº.
Humidity input range	0-20mA: Humidity measuring input for scale is between %0.0 and %100.0.
Input empedance	150Ω
Date retention	EEPROM (Min. 10 years)
EMC	EN 61326-1: 2012
Safety requirements	EN 61010-1: 2010 (pollution degree 2, overvoltage category II)

OUTPUT	
15VDC Output	50mA 15VDC output for sensor supply.
Life expectancy for relay	30.000.000 Switching for no-load operation; 300.000 switching for 8A resistive load at 250VAC.

HOUSING	
Housing type	Suitable for flush-panel mounting according to DIN 43 700.
Dimensions	W72xH72xD97mm
Weight	Approx. 350g (after packing)
Enclosure material	Self extinguishing plastics

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

TERMS



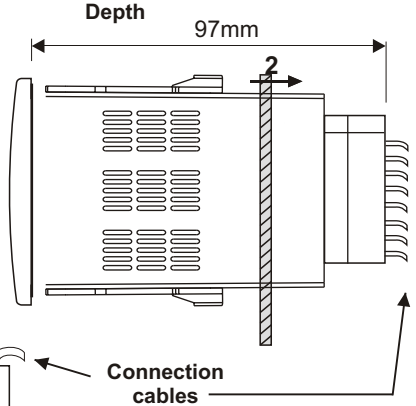
7) Indicates that the heater relay is active or inactive.
8) Indicates that the humidification relay is active or inactive.
9) Indicates that the fan relay is active or inactive.
10) Indicates that the left direction rotating process relay is active or inactive.
11) Indicates that the right direction rotating process relay is active or inactive.

1) In "Running Mode", indicates the measured temperature value. In "Programming Mode", indicates the parameter name.
2) In "Running Mode", indicates the measured relative humidity value. In "Programming Mode", indicates the parameter value or unit.
3) In "Programming Mode", increase the value or changes the parameters. In "Running Mode", Provides the control outputs to be active or passive.
4) In "Programming Mode", decrease the value or changes the parameters.
5) In "Running Mode", humidity setpoint change key. In "Programming Mode", allows to switch between menu titles.
6) In "Running and Programming Mode", allows to select and set the parameters. In "Running Mode", Changes temperature setpoint.

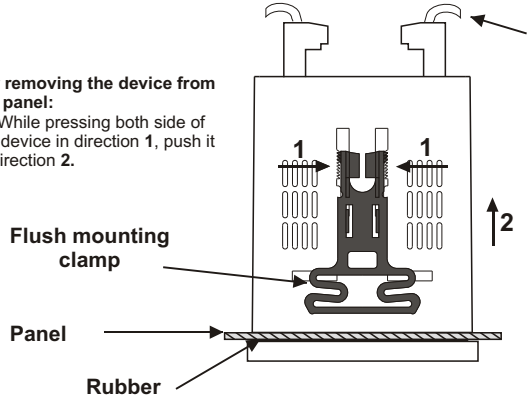
(1) Temperature indicator	4 digits, 7 segment yellow LED	Height : 7.1mm
(2) Relative humidity indicator	4 digits, 7 segment yellow LED	Height : 7.1mm
(3),(4),(5),(6) Keypad	Micro switch	

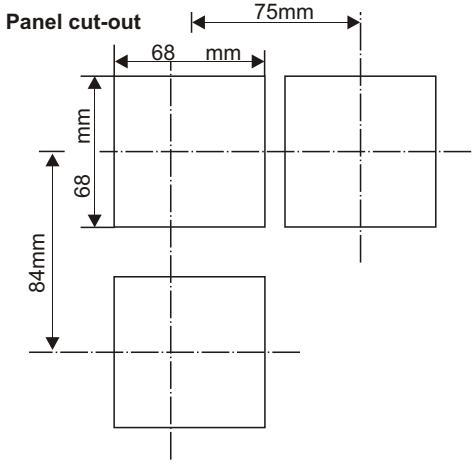
DIMENSIONS





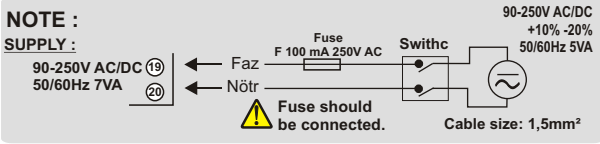
For removing the device from the panel:
- While pressing both side of the device in direction **1**, push it in direction **2.**





Note: 1) While panel mounting, additional distance is required for connection cables.
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.

NOTE :
SUPPLY :



Holding screw 0.4-0.5Nm.

Equipment is protected throughout by DOUBLE INSULATION

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.

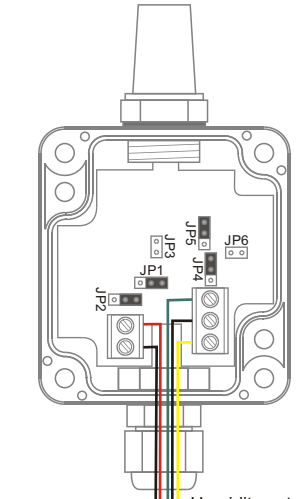
CONNECTION DIAGRAM

ENDA EHTC725 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.

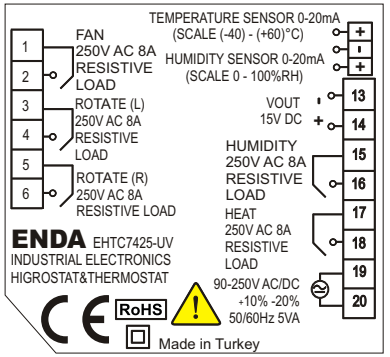
ESHT-102
Relative Humidity & Temperature Transmitter

NOTE : If the ESHT-102 transmitter device will be used, it must be ordered separately.

ORDER CODE : ESHT-102
ENDA ESHT-102
Relative Humidity & Temperature Transmitter



* 0.0 - 100.0% RH Humidity Measurement.
* (-40.0)-(+60.0)°C Temperature Measurement.
* Selectable 0-20mA and 0-10V output.
* Wall Mounted.
* Screw-terminal Connection
* CE marked according to European Norms.



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EHTC7425-E-27012016

Programming Diagram

Running Mode

SET ▷

If SET key is pressed while holding ▷ key, the “Programming Mode” is entered.

Entering Running Mode in Programming Mode :

In Programming Mode, if no keys are pressed for 20 seconds, information will be saved automatically and Running Mode will be entered.

Alternatively, if SET and ▷ keys are pressed together, “Programming Mode” is entered.

In the “Programming Mode”, if SET key is pressed while holding down ▷ key, then “Running Mode” is entered.

Programming Mode

HEAt ▷ rh. ▷ FAn. ▷ rout. ▷ ALr. ▷

HEAt ▽

- t.hYS — Hysteresis value for heating control.
- t.tYP. — Heating control selection.

rh. ▽

- h.hYS — Hysteresis value for humidification control.
- h.tYP. — Humidity control selection.

FAn. ▽

- F.on.t. — Fan ON time duration.
- F.oF.t. — Fan OFF time duration.
- F.tYP. — Fan control selection.

rout. ▽

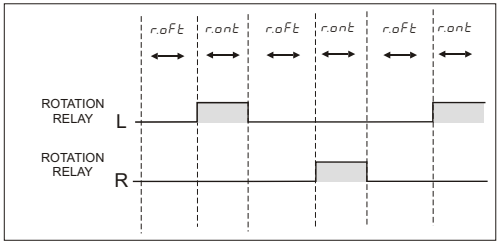
- r.on.t. — Rotation ON time duration. (*)
- r.oF.t. — Rotation OFF time duration. (*)
- r.tYP. — Rotation control selection. (*)

ALr. ▽

- tUPL — Setpoint value for hight temperature alarm.
- tLoL. — Setpoint value for low temperature alarm.
- H.UPL. — Setpoint value for hight humidity alarm.
- H.LoL. — Setpoint value for low humidity alarm.
- A.tYP. — Alarm ON / OFF selection.

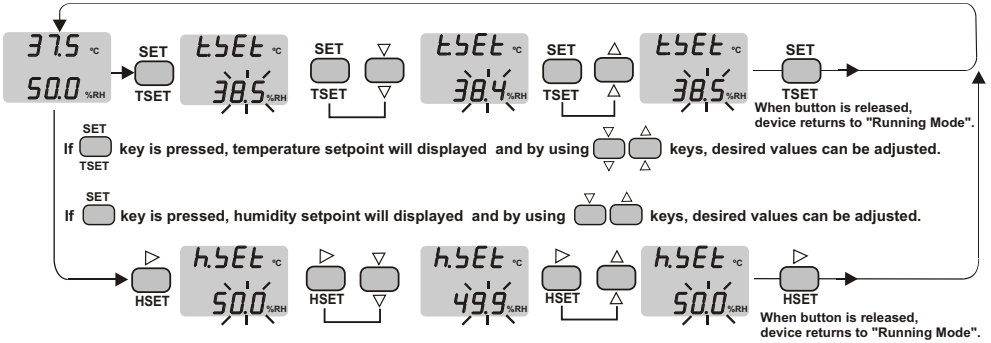


(*) ROTATION OUTPUT GRAPHICS



(*) Rotation process runs sequentially for left and right directions, Rotation process runs consecutively as opened until open duration time (r.ont) and closed until close duration time (r.oFt).

Adjusting the temperature and humidity setpoints



Temperature Alarm Status Display



Humidity Alarm Status Display



△

In "Running Mode" If C(on/off) key is pressed for 3 seconds, all outputs will be disabled.

△

While outputs are disabled in "Running Mode", If C(on/off) key is pressed for 3 seconds, all outputs will be enabled.

Note : If △ C(on/off) key is held down while the device is powered up, d.PAr .LoAd message appears and device returns to factory settings.

PARAMETER TABLE			
Parameter	**Selection / [unit]**	**Description**	**Default value**
		HEAt. Temperature Output Control Menu	
t.SEt	**C°**	Measured temperature can be adjusted between -40.0 C° and 60.0 C°.	37.5
t.HYS	**C°**	Can be adjusted between 0.0 and 10.0.	2.0
t.tYP.	oFF	Temperature control is disabled.	HEAt
	CooL	Cooling control selection.	
	HEAt	Heating control selection.	
		rH. Humidity Output Control Menu	
h.SEt	**%**	Relative humidity can be adjusted between 0% and 100%.	50.0
HYS2.	**%**	Can be adjusted between 0.0 and 10.0.	2.0
h.tYP.	oFF	Humidity control is disabled.	C.Hun.
	C.dry.	Drying control type selection.	
	C.Hun.	Humidification control type selection.	
		FAn. Fan Output Control Menu	
F.on.t	hour.minute	"Fan ON" duration time (Max. 24.00 hour.minute)	1.00
F.oF.t	hour.minute	"Fan OFF" duration time (Max. 24.00 hour.minute)	1.00
F.tYP	on	Fan control enabled.	on
	oFF	Fan control disabled.	
		rout. Rotation Output Control Menu	
r.on.t	minute.second	"Rotating ON" duration time (Max. 10.00 minute.second.)	1.00
r.oF.t	hour.minute	"Rotating OFF" duration time (Max. 24.00 hour.minute)	1.00
r.tYP	on	Rotating control enabled.	on
	oFF	Rotating control disabled.	
		ALr. Alarm Control Menu	
t.UPL.	**C°**	Upper alarm limit for temperature control.	40.0
t.LoL.	**C°**	Lower alarm limit for temperature control.	20.0
H.UPL.	**%**	Upper alarm limit for humidity control.	70.0
H.LoL.	**%**	Lower alarm limit for humidity control.	10.0
A.tYP.	on	Alarm enabled.	oFF
	oFF	Alarm disabled.	