

# ON/OFF - TEMPERATURE CONTROL UNIT

Eco LITE



- TC (J,K,R,S,T Input Types) and RTD inputs selectable by parameter
- Low Power Consumption, Energy saving and Environmentally Friendly with 2VA

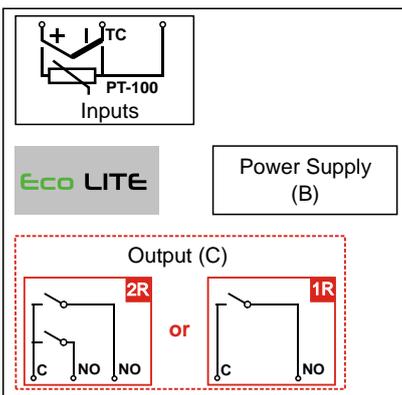
- Saving and Recovery of user parameters
- Return to Factory Settings

## STANDARD FEATURES

- 3 digits Process (PV) and 4 digits Set (SV) display
- Process input ( TC, RTD )
- ON-OFF control form
- Selectable heating and cooling function
- Selectable temperature offset value
- Operation type selection with hysteresis
- Minimum pulling time adjustment for control outputs
- Password protection for programming mode

## TECHNICAL SPECIFICATIONS

Specifications	Process Input	TC, RTD Thermocouple (TC): J, K, R, S and T (IEC584.1)(ITS90)
	Thermoresistance(RTD)	PT-100 (IEC751)(ITS90)
	Measurement Range	Please refer to process input type selection in process menu parameter section.
	Accuracy	± 0,25 of scale for thermocouple and thermoresistance
	Cold Junction Compensation	Automatically. ±0.1°C/1°C
	Line Compensation	Maximum 10 Ohm
	Sensor Break Protection	Upscale
	Sampling Cycle	0,1 second
	Input Filter	Programmable
	Control Form	ON/OFF
Output	Process Output	Relay (5A@250V ~ at Resistive Load)
	Alarm Outputs	Relay (5A@250V ~ at Resistive Load)
Environmental Conditions	Operation Temperature	0...50°C
	Humidity	0-90%RH (None condensing)
	Protection Class	Ip65 in front, Ip20 in rear
	Weight	150 gr.
	Dimension	48 x48 mm
	Depth	86,5 mm
Panel Cut-Out	46 x46 mm	



## USAGE AREAS

All Applications Requiring Temperature Control

- GLASS
- PLASTIC
- PETRO CHEMISTRY
- TEXTILE
- AUTOMOTIVE
- MACHINE PRODUCTION INDUSTRY



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# PID - TEMPERATURE CONTROL UNIT

Eco PID



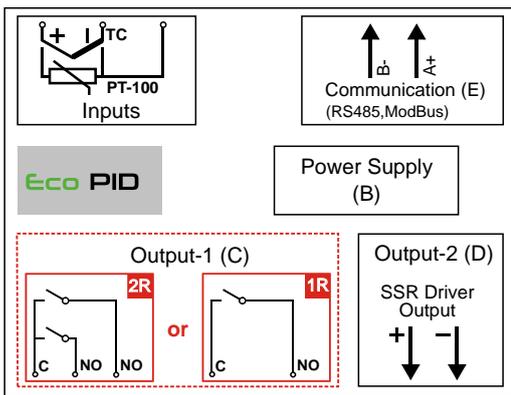
- ▶ High Resolution Sensitive PID control
- ▶ Saving and Recovery of user parameters
- ▶ TC (J,K,R,S,T Input Types) and RTD inputs selectable by parameter
- ▶ Return to Factory Settings
- ▶ Low Power Consumption, Energy saving and Environmentally Friendly with 2VA
- ▶ RS-485 Modbus (RTU) communication option

## STANDARD FEATURES

- 3 digits Process (PV) and 4 digits Set (SV) display
- Process input ( TC, RTD )
- Programmable ON-OFF, P, PI, PD, PID control forms
- Adaptation of PID Coefficients to the system with Self-Tune operation (Step Response Tuning)
- Selectable heating and cooling function
- Selectable temperature offset value
- Selectable Alarm Functions for alarm outputs
- Operation type selection with hysteresis
- Minimum pulling time adjustment for control outputs
- Password protection for programming mode

## TECHNICAL SPECIFICATIONS

Specifications	Process Input	TC, RTD Thermocouple (TC): J, K, R, S and T (IEC584.1)(ITS90)
	Thermoresistance(RTD)	PT-100 (IEC751)(ITS90)
	Measurement Range	Please refer to process input type selection in process menu parameter section.
	Accuracy	± 0,25 of scale for thermocouple and thermoresistance
	Cold Junction Compensation	Automatically. ±0.1°C/1°C
	Line Compensation	Maximum 10 Ohm
	Sensor Break Protection	Upscale
	Sampling Cycle	0,1 second
	Input Filter	Programmable
	Control Form	ON/OFF, P, PI, PD or PID (Programmable)
Output	Process Output	Relay (5A@250V ~ at Resistive Load) Or SSR Driver Output (Maximum 10mA, Max. 12V ----)
	Alarm Outputs	Relay (5A@250V ~ at Resistive Load)
Environmental Conditions	Operation Temperature	0...50°C
	Humidity	0-90%RH (None condensing)
	Protection Class	Ip65 in front, Ip20 in rear
	Weight	150 gr.
	Dimension	48 x48 mm
	Depth	86,5 mm
Panel Cut-Out	46 x46 mm	



## USAGE AREAS

All Applications Requiring Temperature Control

GLASS

PLASTIC

PETRO  
CHEMISTRY

TEXTILE

AUTOMOTIVE

MACHINE  
PRODUCTION  
INDUSTRY



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# PID - HOT RUNNER CONTROL UNIT

Eco HR



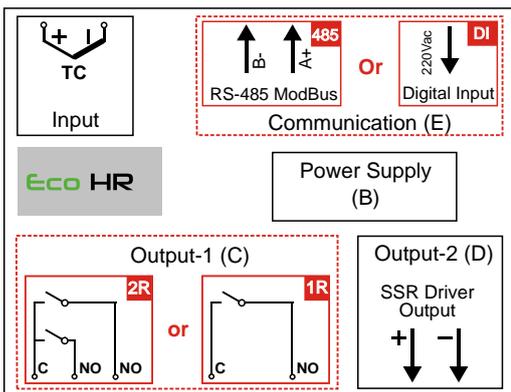
- ▶ High Resolution Sensitive PID control
- ▶ Saving and Recovery of user parameters
- ▶ TC (J,K,R,S,T Input Types) and RTD inputs selectable by parameter
- ▶ Return to Factory Settings
- ▶ Low Power Consumption, Energy saving and Environmentally Friendly with 2VA
- ▶ RS-485 Modbus (RTU) communication option
- ▶ Digital or RS-485 input for activate the 2nd Set Value (Optional)
- ▶ Activate 2nd Set Value by front panel

## STANDARD FEATURES

- 3 digits Process (PV) and 4 digits Set (SV) display
- Process input ( TC )
- Programmable ON-OFF, P, PI, PD, PID control forms
- Adaptation of PID Coefficients to the system with Self-Tune operation (Step Response Tuning)
- Selectable heating and cooling function
- Selectable temperature offset value
- Selectable Alarm Functions for alarm outputs
- Operation type selection with hysteresis
- Minimum pulling time adjustment for control outputs
- Password protection for programming mode

## TECHNICAL SPECIFICATIONS

Specifications	Process Input	(TC): J, K, R, S and T (IEC584.1)(ITS90)
	Measurement Range	Please refer to process input type selection in process menu parameter section.
	Accuracy	± 0,25 of scale for thermocouple and thermoresistance
	Cold Junction Compensation	Automatically. ±0.1°C/1°C
	Line Compensation	Maximum 10 Ohm
	Sensor Break Protection	Upscale
	Sampling Cycle	0,1 second
	Input Filter	Programmable
	Control Form	ON/OFF, P, PI, PD or PID (Programmable)
Output	Process Output	Relay (5A@250V ~ at Resistive Load) Or SSR Driver Output (Maximum 10mA, Max. 12V ----)
	Alarm Outputs	Relay (5A@250V ~ at Resistive Load)
Environmental Conditions	Operation Temperature	0...50°C
	Humidity	0-90%RH (None condensing)
	Protection Class	Ip65 in front, Ip20 in rear
	Weight	150 gr.
	Dimension	48 x48 mm
	Depth	86,5 mm
Panel Cut-Out	46 x46 mm	



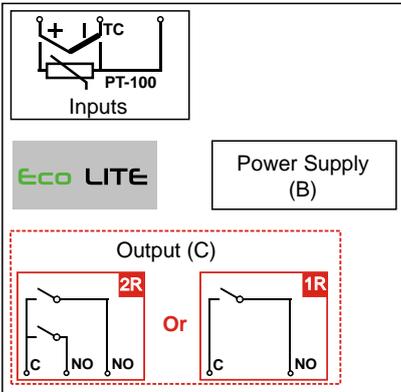
## USAGE AREAS

All Applications Requiring Temperature Control

PLASTIC

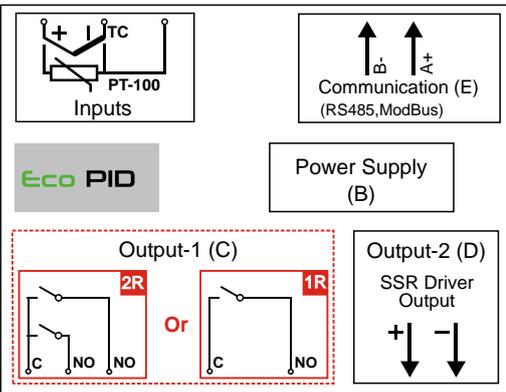


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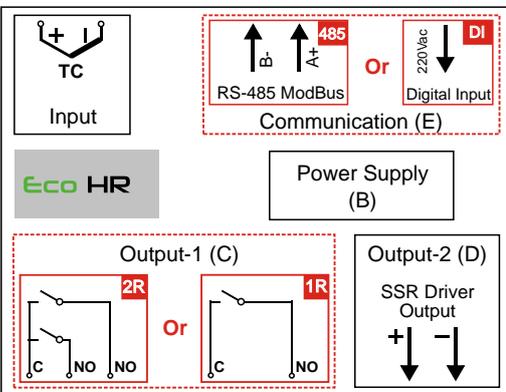
Product Type	A	B	C	D	E
ecoLITE	4			0	0

<b>A. Dimensions</b>					
48x48mm	4				
<b>B. Power Supply</b>					
230Vac (-%15, +%10) 50/60Hz		5			
10-30Vdc (-%15, +%10)		6			
115Vac (-%15, +%10) 50/60Hz		3			
<b>C. Output-1</b>					
1xRelay Output (NO+C) 5A@250Vac			1R		
2xRelay Output (NO+C) 5A@250Vac			2R		



Product Type	A	B	C	D	E
ecoPID	4			S	

<b>A. Dimensions</b>					
48x48mm	4				
<b>B. Power Supply</b>					
230Vac (-%15, +%10) 50/60Hz		5			
10-30Vdc (-%15, +%10)		6			
115Vac (-%15, +%10) 50/60Hz		3			
<b>C. Output-1</b>					
1xRelay Output (NO+C) 5A@250Vac			1R		
2xRelay Output (NO+C) 5A@250Vac			2R		
<b>D. Output-2</b>					
SSR Driver Output ( Max. 10mA, Max. 12Vdc )				S	
<b>E. Communication Options</b>					
Communication N/A (Not Available)					0
RS-485 communication					485



Product Type	A	B	C	D	E
ecoHR	4			S	

<b>A. Dimensions</b>					
48x48mm	4				
<b>B. Power Supply</b>					
230Vac (-%15, +%10) 50/60Hz		5			
10-30Vdc (-%15, +%10)		6			
115Vac (-%15, +%10) 50/60Hz		3			
<b>C. Output-1</b>					
1xRelay Output (NO+C) 5A@250Vac			1R		
2xRelay Output (NO+C) 5A@250Vac			2R		
<b>D. Output-2</b>					
SSR Driver Output ( Max. 10mA, Max. 12Vdc )				S	
<b>E. Communication Options</b>					
Communication N/A (Not Available)					0
RS-485 Communication					485
Digital Input (220Vac)					DI