



Heating Controller

ESM-7311-H

- Heating Applications
- Economic
- Easy to Use
- Functional Internal Buzzer
- 3 Digits Display
- PTC Input or
J Type Thermocouple Input or
K Type Thermocouple Input or
2-wire Pt-100, Pt-1000 Input (It must be determined in order)
- ON/OFF Control
- Adjustable Temperature Offset
- Set Value Boundaries
- Relay or SSR Driver Output
- Heating Function
- Adjustable Cooking Time from Front Panel
- Temperature Control according to the Cooking Time
- Starting Cooking Time when Temperature reaches to the Set Value
- Temperature Control with Manual Heating Function
- Alarm Parameters
- Adjustable Internal Buzzer According to cooking time ,
Probe Defect and Alarm Status
- Button Protection
- Password Protection for Programming Section

SPECIFICATIONS

INPUT

PTC: PTC (1000Ω@ 25°C)

Thermocouple (TC): J, K (IEC 584.1) (ITS90)

Thermoresistance (RTD): 2-wire Pt-100, Pt-1000 (IEC 751)(ITS90)

Measurement Range: It is in ordering information

Accuracy: ± 1% of scale

Cold Junction Compensation: Automatically ± 0.1°C/1°C.

Sensor Break Protection: Upscale

Sampling Cycle: 3 samples per second

CONTROL

Control Form: ON/OFF

ON/OFF hysteresis: It can be configured by the user

OUTPUT

Control Output:

Relay: At resistive load ; 10A@250V~NO+NC , 100.000 operation.
or SSR Driver Output (Maximum 20mA@12V==)

SUPPLY VOLTAGE

230V~(±15%) 50/60 Hz -1.5VA
115V~(±15%) 50/60 Hz -1.5VA
24V~(±15%) 50/60 Hz -1.5VA
12V~(±15%) 50/60 Hz -1.5VA
(It must be determined in order.)

ENVIRONMENTAL RATINGS and PHYSICAL SPECIFICATIONS

Operating Temperature: 0...50°C

Humidity: 0-90%RH (none condensing)

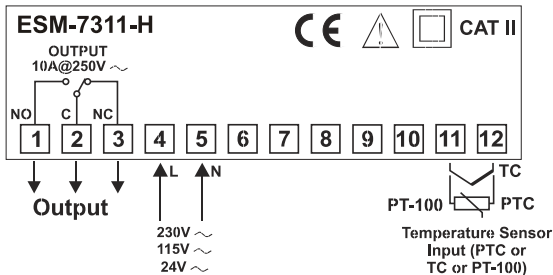
Protection Class: IP65 at front, IP20 at rear

Dimension:

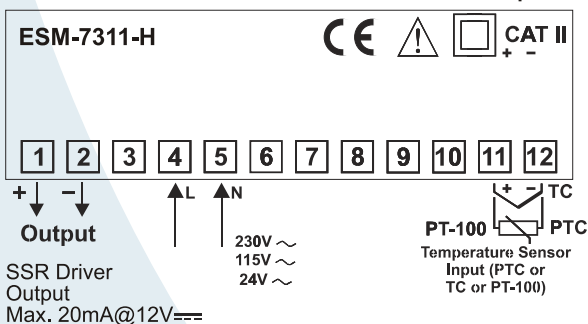
ESM-7311-H : 35 x 77mm, Depth:62.5 mm

Electrical Wiring

For 230V~ , 115V~ , 24V~ with Relay output ;



For 230V~ , 115V~ , 24V~ with SSR Driver Output



Ordering Information

ESM-7311-H (35x77 DIN Size)	A	BC	D	E	/	FG	HI	/	U	V	W	Z
			0		/	00	00	/	1		0	0

A	Supply Voltage
3	24V ~ (± 15%) 50/60Hz
4	115V ~ (± 15%) 50/60Hz
5	230V ~ (± 15%) 50/60Hz
6	12V ~ (± 15%) 50/60Hz
9	Customer

BC	Input Type	Scale(°C)	
05	J, Fe CuNi IEC584.1(ITS90)	0°C	800°C
10	K, NiCr Ni IEC584.1(ITS90)	0°C	999°C
11	PT 100, IEC751(ITS90)	-50°C	400°C
09	PT 100, IEC751(ITS90)	-19.9°C	99.9°C
12	PTC (Note-1)	-50°C	150°C
15	PTC (Note-1)	-19.9°C	99.9°C
14	PT 1000, IEC751(ITS90)	-50°C	400°C
13	PT 1000, IEC751(ITS90)	-19.9°C	99.9°C

Note-1 : If input type is selected PTC (BC = 12 or BC = 15), PTC Temperature sensor is given with the device. For this reason, PTC sensor type (V) must be declared in ordering information.

E	Output-1
1	Relay Output (10A@250V ~ at resistive load, 1 NO + 1NC)
2	SSR Driver Output (Maximum 20mA@ 12V ==)

V	Temp.Sensor which is given with ESM-7311-H
0	None
1	PTC-M6L50.K1.5(PTC Air probe with 1.5 m silicon cable)
2	PTCS-M6L30.K1.5.1/8"(PTC Liquid probe with 1.5 m silicon cable)
9	Customer