

PROCESS INDICATORS

FEATURES :

- 4 Digits process (PV) display
- Universal Process Input (TC, RTD, mV, V, mA)
- Dual or Multi-point Calibration for Voltage/Current Input
- Smart Output Module System
- Programmable Alarm Functions
- Auxiliary Power Supply 15VDC 50mA
- Retransmission of Process Value or Process Control by using 0/4...20mA Current Output Module
- RS-232 (Standard) or RS-485 (Optional) serial Communication with Modbus RTU Protocol

SPECIFICATIONS :

Process Input : TC, RTD, Voltage/Current Thermocouple (TC): L(DIN 43710), J, K, R, S, T, B, E ve N (IEC584.1) (ITS90), C (ITS90)
Thermoresistance (RTD): PT-100 (IEC751) (IS90)
Input : mV, V, mA
Measurement Range : Please refer Table-1
Accuracy : $\pm 0.25\%$ of f.s. for thermocouple,
Thermoresistance, mV, $\pm 0.70\%$ of f.s. for mA
Cold Junction Compensation : Automatically $\pm 0.1^\circ\text{C}/1^\circ\text{C}$
Line Compensation: Maximum 10 Ohm
Sensor Break Protection: Upscale
Sampling Cycle : 3 samples per second
Input Filter: 0.0 to 900.0 seconds

OUTPUT

Standard Relay Output : 5A@250V ~ (for resistive load)
Output Modules : Two input/Output Modules can be plugged in sockets for using as an alarm output (Available output Modules)

- Relay Output Module
- SSR Output Module (Max. 20mA @ 18V)
- Digital (Transistor) Output Module (Max. 40mA @ 18V)
- 0/4...20mA Current Output Module



ESM-4900



ESM-4400

DISPLAY

Process Display :
ESM-4400 : 10 mm Red 4 digits LED display
ESM-4900 : 20 mm Red 4 digits LED display

LEDS : $^\circ\text{C}$, $^\circ\text{F}$, V, OP1/2/3 (Output Status) Leds

SUPPLY VOLTAGE

100-240V ~ 50/60 Hz (-15%; +10%)-6VA Standard
24 V (-15%; +10%)-6W (if justified by Qty.)
(Must be determined in order)

Operating Temperature: 0...50 $^\circ\text{C}$
Humidity : 0-90%RH (none condensing)
Protection Class : IP65 at front, IP20 at rear

Weight: ESM-4400 : 210 gr.,
ESM-4900 : 216 gr.

Dimension: ESM-4400 : (48 × 48mm, Depth:116mm)
ESM-4900 : (96 × 48mm, Depth: 86.5 mm)

Panel Cut-Out : ESM-4400 : (46 × 46mm)
ESM-4900 : (92 × 46mm)



HTA INSTRUMENTATION (P) LTD.,

An ISO 9001: 2015 Certified Company & NABL Accredited Calibration Laboratory as per ISO/IEC 17025:2017

Your One Stop For Instrumentation Supply, Automation & Calibration

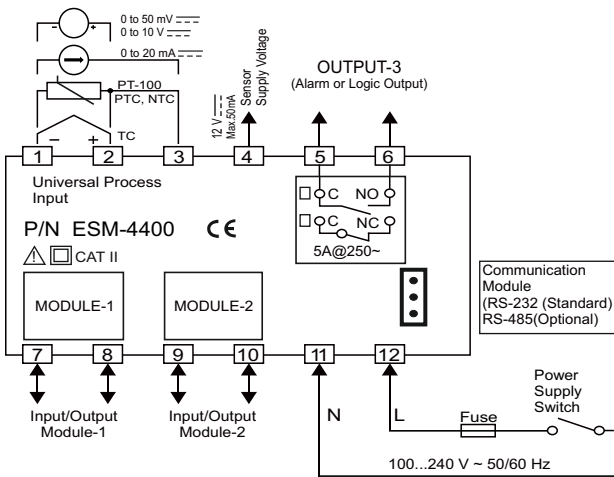
73, Ramachandra Agrahara, Near T.R. Mills, Chamarajpet, Bangalore - 560018, INDIA.

Phone : 080-26749750, 26759253, 26740681 E-mail : sales@htaipl.com Website : www.htaipl.com

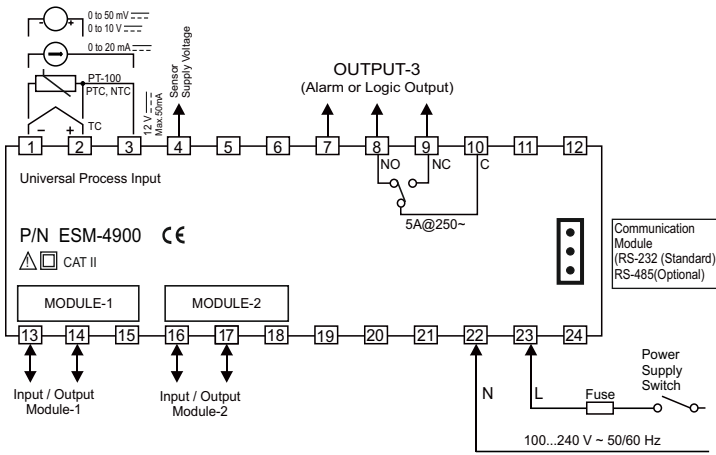


ISO 9001:2015 CERTIFIED
Certificate No. IQSC202010014

ESM-4400



ESM-4900



ORDERING INFORMATION

ESM-4400 (48x48 DIN 1/16)	A	BC	D	E	/	FG	HI	/	U	V	W	Z
ESM-4900 (96x48 DIN 1/8)				1	/			/	0	0	0	0

A	Supply Voltage
1	100-240 V ~ (-15%; +10%) 50/60 Hz
2	24V === (-15%; +10%)

BC	Input Type	Scale
20	Configurable (Table-1)	Table-1

D	Serial Communication
0	None
1	RS-232
2	RS-485

E	Output - 3
1	Relay Output (5A@250 V ~)

FG	Module-1	Module Codes
00	None	
01	Relay Output Module	EMO-400, EMO-700, EMO-900
02	SSR Driver Output Module (maximum 20mA@18V ===)	EMO-410, EMO-710, EMO-910
03	Digital (Transistor) Output Module (Maximum 40mA@ 18V ===)	EMO-420, EMO-720, EMO-920
04	Current Output Module (0/4...20 mA ===) (or 0...10V=== with appropriate mechanism)	EMO-430, EMO-730, EMO-930

HI	Module-2	Module Codes
00	None	
01	Relay Output Module	EMO-400, EMO-700, EMO-900
02	SSR Driver Output Module (maximum 20mA@18V ===)	EMO-410, EMO-710, EMO-910
03	Digital (Transistor) Output Module (Maximum 40mA@ 18V ===)	EMO-420, EMO-720, EMO-920
04	Current Output Module (0/4...20 mA ===) (or 0...10V=== with appropriate mechanism)	EMO-430, EMO-730, EMO-930

Note-1 : EMO-4xx Output Modules are used in ESM-4400 and ESM-4900 devices, EMO-7xx Output Modules are used in ESM-7700 devices, EMO-9xx Output Modules are used in ESM-9900 devices.

Note-2 : EMO-400 Relay Output Module's rating is 3A@250V ~ (for resistive load) EMO-700 and EMO-900 Relay Output Module's ratings are 5A@250~ (for resistive load).

Table-1

BC	Input Type(TC)	Scale(°C)	Scale(°F)
21	L, Fe Const DIN43710	-100°C 850°C	-148°F 1562°F
22	L, Fe Const DIN43710	-100.0°C 850.0°C	-148.0°F 999.9°F
23	J, Fe CoNi IEC584.1 (ITS90)	-200°C 900°C	-328°F 1652°F
24	J, Fe CoNi IEC584.1 (ITS90)	-199.9°C 900.0°C	-199.9°F 999.9°F
25	K, NiCr Ni IEC584.1 (ITS90)	-200°C 1300°C	-328°F 2372°F
26	K, NiCr Ni IEC584.1 (ITS90)	-199.9°C 999.9°C	-199.9°F 999.9°F
27	R, Pt13%Rh Pt IEC584.1(ITS90)	0°C 1700°C	32°F 3092°F
28	S, Pt10%Rh Pt IEC584.1(ITS90)	0°C 1700°C	32°F 3092°F
29	T, Cu CuNi IEC584.1 (ITS90)	-200°C 400°C	328°F 752°F
30	T, Cu CuNi IEC584.1 (ITS90)	-199.9°C 400.0°C	-199.9°F 752.0°F
31	B, Pt30%Rh Pt6%Rh IEC584.1 (ITS90)	-200°C 400°C	-328°F 752°F
32	B, Pt30%Rh Pt6%Rh IEC584.1 (ITS90)	-199.9°C 400.0°C	-199.9°F 752.0°F
33	E, NiCr CuNi IEC584.1(ITS90)	-150°C 700°C	-238°F 1292°F
34	E, NiCr CuNi IEC584.1(ITS90)	-150.0°C 700.0°C	-199.9°F 999.9°F
35	N, Nicrosil Nilil IEC584.1(ITS90)	-200°C 1300°C	-328°F 2372°F
36	N, Nicrosil Nilil IEC584.1(ITS90)	-199.9°C 999.9°C	-199.9°F 999.9°F
37	C, (ITS90)	0°C 2300°C	32°F 4172°F
38	C, (ITS90)	0.0°C 999.9°C	32.0°F 999.9°F

BC	Input Type(RTD)	Scale(°C)	Scale(°F)
39	PT 100, IEC751 (ITS90)	-200°C 650°C	-328°F 1202°F
40	PT 100, IEC751 (ITS90)	-199.9°C 650.0°C	-199.9°F 999.9°F

BC	Input Type(DC Voltage and Current)	Scale
41	0...50 mV ===	-1999, 9999
42	0...5 V ===	-1999, 9999
43	0...10 V ===	-1999, 9999
44	0...20 mA ===	-1999, 9999
45	4...20 mA ===	-1999, 9999