PROCESS & TEMPERATURE CONTROLLER

1/8DIN

ESM-7730

72x72mm

Z-TRAUQ INC.

TEL. : (877) 798-7287 www.z-trauq.com sales@z-trauq.com

FEATURES

- 4 digits process and 4 digits set display
- Universal process input (TC, RTD, V, mA)
- Dual or multi-point calibration for V and mA inputs
- Programmable ON/OFF and PID control forms
- Autotune and Selftune selection
- Bumpless transfer
- Heating, cooling and alarm functions
- On board sensor power supply
- Fully scalable input and reading
- High Limit Certified (manual reset from fault)
- Password protection except set point & alarms

ORDERING INFORMATION

	A	BC	D	E	/	FG	HI
ESM-7730		20	0	1	/	01	02

Complete the model number with the appropriate supply voltage suffix.

ESM 7730 can be programmed to recognize any of the inputs in table1

A	Supply Voltage	
1	100-240Vac 50/60Hz	
2	24Vac/Vdc	
9	Custom (please specify)	
BC	**Input Types**	**Scales**
20	Configurable **(Table-1)**	**Table-1**
D	**Serial Interface**	
0	None	
E	**Output 1**	
1	Relay Output 5A @ 250Vac	
FG	**Output 2**	
01	Relay Output 5A @ 250Vac	
HI	**Output 3**	
02	SSR Output 20mA @18 Vdc	

SPECIFICATIONS:

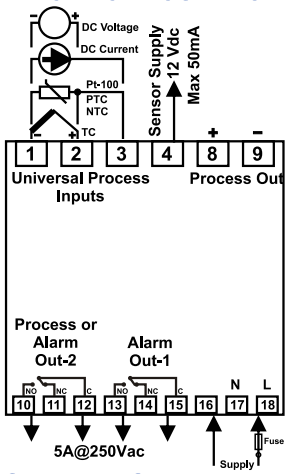
PROCESS INPUT - same unit accepts any of the following
Input Types : TC, RTD, DC Voltage/Current
Thermocouple (TC): L,J,K,R,S,T,B,E,N,C
Thermoresistances (RTD): PT 100
DC Voltage: 0 - 50mV, 0 - 5V, 0 - 10V
DC Current: 0 - 20mA (incl. 4-20mA)
Measuring Range : Refer to Table 1
Accuracy: ± %0.25 of FS for TC's, RTD's, voltage and current.
Cold Junction Compensation: Automatically ±0.1°C/1°C
Line Compensation: Maximum 10 Ohm
Sensor Break Protection: Within the operating scale
Sampling Cycle: 3 samples per second
Input Filter: Selectable 0.0 to 900.0 Seconds
Time Delays: 0-9999 sec from fault ;
0-9998 sec or manual reset
CONTROL
Control Form: Programmable ON/OFF or PID
OUTPUT
Relays: two 5A@250Vac
SSR: one output 20mA @18 Vdc
DISPLAY
Process Display : 14 mm Red 4 digits LED display
Set Display : 8 mm Green 4 digits LED display
LED indicators : AT (Auto Tune), M (Manual Mode), A (Automatic Mode), PSET (Process Set value), ASET1 (Alarm-1Set value), ASET2 (Alarm-2 Set value), PO (Process Output), AO1 (Alarm Output-1) , AO2 (Alarm Output-2) °C / °F / V unit
SUPPLY
Input: 100-240 Vac, 24 Vac/Vdc, others upon request.
Power Consumption: Maximum 6VA
Sensor Power Supply: 12Vdc 50mA

CONDITIONS and SPECIFICATIONS
Operating Temperature: 0 to 50°C
Humidity : 0 to 90%RH (non condensing)
Protection Class: NEMA 4X (IP65) front, IP20 rear
Weight:150 gr.
Dimensions: 72 x 72mm, Depth:76 mm
Panel Cut-Out: 69 x 69mm
Approvals: UL and cUL Listed, CE compliant

Table-1

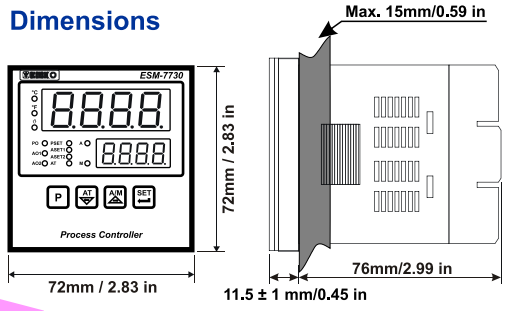
BC	Input- any of:	Scale(°C)	Scale(°F)
20	L(FeConst DIN43710)	-100°C 850°C	-148°F 1562°F
	J(FeConst IEC-584)	-200°C 900°C	-328°F 1652°F
	K(NiCrNi DIN/IEC)	-200°C 1300°C	-328°F 2372°F
	R(Pt13%RhPt DIN/IEC)	0°C 1700°C	32°F 3092°F
	S(Pt10%RhPt DIN/IEC)	0°C 1700°C	32°F 3092°F
	T(CuConst DIN/IEC)	-200°C 400°C	-328°F 752°F
	B(Pt18%RhPt DIN/IEC)	-200°C 400°C	-328°F 752°F
	E(CrConst DIN/IEC)	-150°C 700°C	-238°F 1292°F
	N(NikrosilNisil DIN/IEC)	-200°C 1300°C	-328°F 2372°F
	C(DIN/IEC)	0°C 2300°C	32°F 4172°F
	PT 100 (2 or 3 wire)	-200°C 650°C	-328°F 1202°F
any T/C, RTD (2 / 3 wire) or process input	0...50 mV	-1999 ... 9999	
	0...5 V	-1999 ... 9999	
	0...10 V	-1999 ... 9999	
	0...20 mA	-1999 ... 9999	
	4...20 mA	-1999 ... 9999	

ELECTRICAL CONNECTIONS

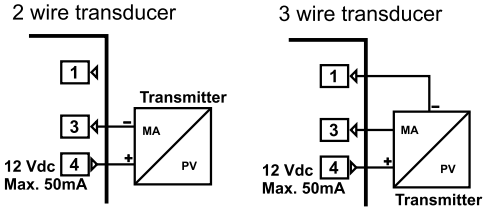


NB. On board sensor power supply rated 12Vdc ± 10% 50mA max. with short circuit protection. Input Resistance is 2R7 Ω .

Dimensions



On-board Sensor Power Supply



We offer a complete selection of thermocouples & RTD's