


PROCESS CONTROLLER

FRONT VIEW



SIZE : 96(W) X 48(H) X 120(D) in mm.
 CUTOUT : 92(W) X 44(H) in mm.

BACK VIEW

BACK VIEW								TX -		TX +									
O/P		RS 485		BACK VIEW															
230 VAC				RELAY-1				RELAY-2				BACK VIEW							
P		N		E		NO1		C1		NC1		C2		NC2		BACK VIEW			
MODEL NO.:								INPUT :											
SR. NO. :								SUPPLY : 230VAC											
 AMBETRONICS (ISO 9001-2000 CO.)																Email: ambetronics@vsnl.com			



CLASSIC FEATURES:-

Based on state of art latest microcontroller technology with Watchdog feature for fail safe operation.

- * Inputs RTD(PT100), J, K, R, S, T, E, B, N Thermocouples 4-20mA, 0-10VDC factory settable.
- * Automatic cold junction compensation for thermocouples.
- * Automatic wirelength compensation for long wire RTD inputs.
- * Very high accuracy 0.25%, with software linearization.
- * Easy on-line field calibration to user by front keys.
- * Reading offset facility to compensate the field error.
- * Two independents set point with individual relay output with hysteresis settable
- * Programmable latch OR non-latch facility for relay output.
- * Isolated RS485 communication with MODBUS RTU Protocol
- * Isolated retransmission output for process value with programmable range can be set by user.
- * Flameproof version is available on request.

APPLICATIONS:-

The TC-303 is part of TC series intelligent microcontroller based Temperature controller instrument for realization of economic solution of process control problem.




It is mostly used in,

- * Oven control
- * Food processing.
- * Cold storage & Chilling plants.
- * Constant temp. Bath & Environmental chamber.
- * Plastic / Packaging / Rubber & metal industry.

TECHNICAL SPECIFICATIONS:-

* INPUT & RANGE :-

INPUT	RANGE		RESOLUTION	ACCURACY
	Minimum	Maximum	NORMAL	FULL SCALE
PT-100 (3 WIRE)	- 200°C	400.0°C	0.1	0.25%
J Type (FE-CON)	- 50.0°C	600.0°C	0.1	0.25%
K Type (Cr-Al)	- 50.0°C	500.0°C	0.1	0.25%
K Type (Cr-Al)	- 50°C	1200°C	1	0.25%
R(PT-13%Rh/PT), S(PT-13%Rh/PT)	0°C	1750°C	1	0.25%
T Type (Cu/Con)	-50.0°C	400.0°C	0.1	0.25%
N , E - Type (Cr/Con)	0°C	1300°C	1	0.25%
B - Type (PT 6% Rh / PT 30% Rh)	400°C	1820°C	1	0.25%
4 to 20mA / 0 to 20mA	- 999	9999	Programmable By user	0.25%
Voltage (0 to 1VDC, 0 to 10mVDC)	- 999	9999		0.25%

- Compensation** : Automatic Cold Junction Compensation for all thermocouples.
Automatic wirelength compensation for long wire RTD inputs.
- Sensor break** : Temperature sensor break OR sensor open, display shows 'sPE n' indication.
Under Range 'Undr' Over range 'ouEr' indication for 4 - 20mA & 0 - 10VDC.
- Display** : 4 digits of 13 mm. height L.E.D for process value display.
4 L.E.D.s for RL1, RL2. TX, RX.
- Setting** : By 3 keys on front panel i.e.    Keys.
- Set Point** : Two independents set point with individual relay output with hysteresis settable. Programmable latch OR non-latch facility for both relay output
- Control Action** : High & Very high, High & low, Low & Very low programmable by user.
- Relay Output** : 1 NO/C/NC Relay contact rated 230V/5A for Relay1 (RL1) & Relay2 (RL2).
- Supply** : 230VAC +/-10%, 110VAC +/-10%, 24VDC.
- Mounting** : Panel mounting / Wall mounting type for Flameproof model.
- Dimension** : 96(W) X 48(H) X 120(D) in mm. OR 72(W) X 72(H) X 120(D) in mm
- Cutout** : 92(W) X 44(H) in mm. OR 68(W) X 68(H) in mm.
- Cabinet** : ABS Plastic.
- Optional** : a) Isolated RS485 Serial port with MODBUS RTU Protocol output for PC interface. Powerful SCADA Software is available.
b) Isolated 4 - 20mA / 0 - 1VDC retransmission programmable output for recorder or PLC proportional to selective range.
c) Flameproof version is available on request for hazardous application.
- Weight** : 1 Kg.

Ambetronics Engineers Pvt. Ltd.

17-B, Tarun Industrial Estate, Mogra Pada, New Nagardas Road,
Andheri (East), Mumbai-400069, India.

Tel. : +91-22-66995525, 28371143, Fax : +91-22-28226570

Mob. : 09324571143, Website: www.ambetronics.com

E-mail : sales@ambetronics.com, ambetronics@vsnl.com

DEALERS :