



96(W) X 96(H) X 175(D) mm.

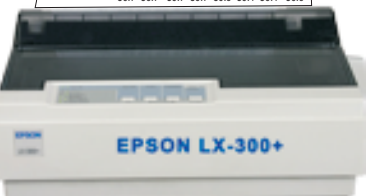
RS-232 / RS-485 SERIAL PORT  
(OR)  
25PIN PARALLEL PORT



DATALOG SOFTWARE

**VALIDATION PRINTOUT**

Company Name: CIPLA PVT LTD. PROCESS NAME: REFRIGERATION 1												
18/03/01 BATCH No:1803 18/03/01 22/02/03												
	CH01	CH02	CH03	CH04	CH05	CH06	CH07	CH08	CH09	CH10	CH11	CH12
Alarm1	1200 H	1200 H	1200 H	1200 H	1200 H	1200 H	1200 H	1200 H	1200 H	1200 H	1200 H	1200 H
Alarm2	1200 H	1200 H	1200 H	1200 H	1200 H	1200 H	1200 H	1200 H	1200 H	1200 H	1200 H	1200 H
07/01/03 04:15:00	30.7	30.6	30.6	30.7	30.7	30.5	30.5	30.7				
07/01/03 04:45:00	30.7	30.7	30.6	30.7	30.6	30.5	30.4	30.7				
07/01/03 05:15:00	30.7	30.7	30.6	30.7	30.6	30.5	30.4	30.7				
07/01/03 05:45:00	30.7	30.7	30.7	30.7	30.6	30.4	30.4	30.6				
07/01/03 06:15:00	30.7	30.6	30.6	30.7	30.7	30.5	30.5	30.7				
07/01/03 06:45:00	30.7	30.7	30.6	30.7	30.6	30.5	30.4	30.7				
07/01/03 07:15:00	30.7	30.7	30.6	30.7	30.6	30.5	30.4	30.7				
07/01/03 07:45:00	30.7	30.7	30.7	30.7	30.6	30.4	30.4	30.6				
07/01/03 08:15:00	30.7	30.6	30.6	30.7	30.7	30.5	30.5	30.7				
07/01/03 08:45:00	30.7	30.7	30.6	30.7	30.6	30.5	30.4	30.7				
07/01/03 09:15:00	30.7	30.7	30.6	30.7	30.6	30.5	30.4	30.7				
07/01/03 10:45:00	30.7	30.7	30.7	30.7	30.6	30.4	30.4	30.6				



DIRECT PRINTOUT ON  
80 COLUMN DOTMATRIX  
PRINTER

**TC-800 : CLASSIC FEATURES:-**

- \* Maximum 8 analogue input with any combination.
- \* Universal input type for thermocouple J, K, R, S, T, RTD (PT-100), 4 - 20mA, 0 - 10V, please specify input while order.
- \* Automatic cold junction compensation for thermocouples.
- \* Automatic wire length compensation for long wire RTD inputs.
- \* Very high accuracy 0.25%, With software linearization.
- \* Temperature sensor break, 'oPEn' indication.
- \* Under Range 'undr' & over range 'OuEr' indication for 4 to 20 mA & 0 - 10VDC linear input.
- \* Easy on-line field calibration by user by front keys.
- \* Built in temperature reading in °C or °F by user selectable.
- \* Individual channel SKIP, HOLD facility from front panel.
- \* Reading offset facility to compensate the field error.
- \* Field programmable channel scan time 1 to 59 seconds.
- \* Two independent set points individual for each channels with two common relay.
- \* Hysterisis : Programmable for relay output.
- \* Output - 1 NO/C/NC Relay contact rated 230 V/5Amp. for both relay 1 (ALARM 1) & relay 2 (ALARM 2) common for all channels.
- \* Programmable latch & non-latch facility for common relay & relay Indication.
- \* Optional RS-232 / RS-485 serial port with modbus RTU protocol.
- \* Optional on line Data Acquisition computer software.
- \* Optional Parallel port for direct printout on 80 column dot-matrix / printer without need of computer(PC).
- \* Field programmable print interval 5 to 9999 seconds. Printers with real time clock for on line printing.
- \* Optional individual relay output can be given for each channel.

**DESCRIPTION:-**

The TC-800 multiple data scanner is a part of TC series intelligent Microcontroller based Indicator instrument for realization of economic solution of process control problem. It is mostly used in:

- \* Pharmaceutical validation
- \* Online recording for Oven & BOD, Incubator, Humidity Chamber.
- \* Winding temperature of generators, bearings, motors, transformers
- \* Heat treatment in furnace.
- \* Water pumping station, water purification & treatment plant.
- \* Primary & auxiliary temperature scanning of boiler.
- \* Iron & steel industries for soaking pits oxygen plate, smelter plant.
- \* Sugar industry for Pan alternation, dailer automation.
- \* Chemical & petrochemical industry.

# TECHNICAL SPECIFICATIONS (tC-800):-

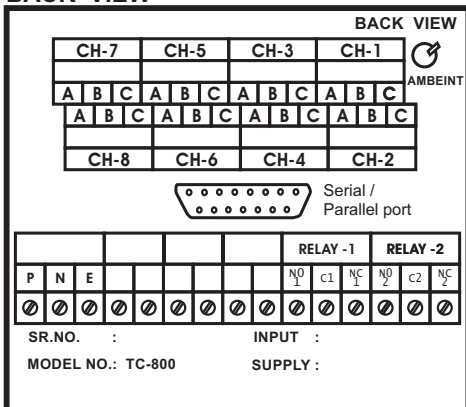
No. of I/P channel: Maximum upto 8 Channels in any Input combination as per users' requirement.

**\* INPUT & RANGE :-**

INPUT	RANGE		RESOLUTION	ACCURACY
	Minimum	Maximum	NORMAL	FULL SCALE
PT-100 (3 WIRE)	-99.9°C	500.0°C	0.1	0.25%
J (FE-CON)	-99.9°C	450.0°C	0.1	0.25%
K(Cr-Al)	-99.9°C	500.0°C	0.1	0.25%
K(Cr-Al)	-100°C	1200°C	1	0.25%
R(PT-13%Rh/PT), S(PT-10%Rh/PT)	0°C	1750°C	1	0.25%
T(Cu/Con)	0.0°C	400.0°C	0.1	0.25%
4 to 20mA / 0 to 20mA	-999	9999	Programmable By user	0.25%
0 to 10VDC, 0 to 50mVDC	-999	9999		

- Compensation** : Automatic Cold Junction Compensation for all thermocouples.
- Display** : 4 digits of 13 mm. height L.E.D for process value display.  
: 1 digit of 13mm. height L.E.D for channel number display.  
8 L.E.Ds for Alarm Indication. AL1 L.E.D get ON, AL 2 L.E.D's get continuous blink.
- Setting** : 5 feathers touch keys on front panel.
- Alarm** : 2 independent set points individual for each channels with 2 common relay output.
- Output Port** : 1 NO/C/NC Relay contact rated 230V/5A for relay1 (AL1) & relay2 (AL2).  
: RS-232/RS-485 Serial port with Modbus output or parallel centronics port for 80 column computer printer for direct printout.
- Supply** : 230VAC ± 10%, OR 110VAC ± 10%, 50Hz.
- Mounting** : Panel mounting.
- Dimension** : 96(W) X 96(H) X 175(D) in mm.
- Cutout** : 92(W) X 92(H) in mm.
- Cabinet** : ABS plastic, white colour.
- Optional** : a) Datalog Data Acquisition windows based software for real time trending..  
B ) Parallel port for direct printout on 80 column dot-matrix / printer without need of computer(PC)  
C) Individual relay O/P can be given for each channel or with grouping O/P.
- Weight** : 750 gram (approx.).

**BACK VIEW**



**ORDERING INFORMATION:**

TC - 800

A B C D E F

**C) Relay output**

- 0) None
- 1) 2 Common alarm
- 2) 8 Relay alarm
- 3) 16 Relay alarm

**B) Input Type**

- 1) J(Fe-Con)
- 2) K(Cr-Al)
- 3) R(pt13%rh / pt)
- 4) S(pt10%rh / pt)
- 5) T(Cu/Con)
- 6) RTD PT-100
- 7) 4 to 20mA
- 8) 0 to 10VDC
- 9) Multiple inputs (Please specify with channel no.)

**F) PC Based Software**

- 0) None
- 1) Datalog for TC-800
- 2) Winlog SCADA Software
- \*Ask for Demo CD

**E) Communication port**

- 0) None
- 1) RS232 Serial port
- 2) RS485 Serial port
- 3) Centronix Parallel port

**D) Power Supply**

- 1) 230 VAC
- 2) 110 VAC
- 3) 24 VDC
- 4) Specify if anyother

- P } :Phase
- N } :Neutral
- E } :Earth
- NO1 } :Normally open for Alarm Relay1
- C1 } :Common for Alarm Relay1
- NC1 } :Normally closed for Alarm Relay1
- A+ } Channel
- B- } analog
- C- } input
- No2 } :Normally open for Alarm Relay2
- C2 } :Common for Alarm Relay2
- Nc2 } :Normally closed for Alarm Relay2



96(W) X 192(H) X 350(D) mm.

RS-232 / RS-485 SERIAL PORT  
(OR)  
25PIN PARALLEL PORT



DATALOG SOFTWARE

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Company Name: CIPLA PVT.LTD. _PROCESS NAME: REFRIGERATION 1
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M02015-001 * BATCH No:1503 * 16:03:12 * 22/12/2002 *
CH01 CH02 CH03 CH04 CH05 CH06 CH07 CH08
AL-1 1200 H 1200 H 1200 H 1200 H 1200 H 1200 H 1200 H 1200 H
AL-2 1200 H 1200 H 1200 H 1200 H 1200 H 1200 H 1200 H 1200 H
CH-09 CH-10 CH-11 CH-12 CH-13 CH-14 CH-15 CH-16
AL-1 1200 H 1200 H 1200 H 1200 H 1200 H 1200 H 1200 H 1200 H
AL-2 1200 H 1200 H 1200 H 1200 H 1200 H 1200 H 1200 H 1200 H
TIME CH-01 CH-02 CH-03 CH-04 CH-05 CH-06 CH-07 CH-08
22/12 11:45:27 DEG DEG DEG DEG DEG DEG DEG DEG
DEG DEG DEG DEG DEG DEG DEG DEG
22/12 11:45:27 25 25 25 25 25 25 25 25
TIME CH-09 CH-10 CH-11 CH-12 CH-13 CH-14 CH-15 CH-16
DEG DEG DEG DEG DEG DEG DEG DEG
22/12 11:45:37 27 28 27 28 28 28 28 28
TIME CH-09 CH-10 CH-11 CH-12 CH-13 CH-14 CH-15 CH-16
DEG DEG DEG DEG DEG DEG DEG DEG
22/12 11:45:37 25 25 25 25 25 27 28 28
    
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DIRECT PRINTOUT ON  
80 COLUMN DOTMATRIX  
PRINTER

**TC-1600 : CLASSIC FEATURES:-**

- \* Maximum 16 analogue input with any combination.
- \* Universal input type for thermocouple J, K, R, S, T, RTD (PT-100), 4 - 20mA, 0 - 10V.(user can connect any input)
- \* Automatic cold junction compensation for thermocouples.
- \* Automatic wirelength compensation for long wire RTD inputs.
- \* Very high accuracy 0.25%, With software linearization.
- \* Temperature sensor break, 'oPEn' indication.
- \* Under Range 'undr' & over range 'OuEr' indication for 4 to 20 mA & 0 - 10VDC linear input.
- \* Easy on-line field calibration by user by front keys.
- \* Individual channel SKIP, HOLD facility from front panel.
- \* Reading offset facility to compensate the field error.
- \* Field programmable channel scan time 1 to 59 seconds.
- \* Two independent set points individual for each channels with four common relay output with grouping facility.
- \* Hysterisis : Programmable for relay output.
- \* 1 NO/C/NC Relay contact rated 230 V/5Amp. for four relays.
- \* Programmable latch & non-latch facility for common relay & relay Indication.
- \* Optional RS-232 / RS-485 serial port with modbus RTU protocol.
- \* Optional on line Data Acquisition computer software.
- \* Optional Parallel port for direct printout on 80 column dot-matrix / printer without need of computer(PC).
- \* Field programmable print interval 1 to 59 minute. Printers with real time clock for on line printing.
- \* Optional individual relay output can be given for each channel.

**DESCRIPTION:-**

The TC-1600 multiple data scanner is a part of TC series intelligent Microcontroller based Indicator instrument for Realization of economic solution of process control problem. It is mostly used in:

- \* ISO Certification & validation process.
- \* Pharmaceutical validation.
- \* Online recording for Oven & BOD, Incubator, Humidity Chamber.
- \* Winding temperature of generators, bearings, motors, transformers.
- \* Heat treatment in furnace.
- \* Water pumping station, water purification & treatment plant.
- \* Primary & auxiliary temperature scanning of boiler.
- \* Iron & steel industries for soaking pits oxygen plate, smelter plant.
- \* Sugar industry for Pan alternation, dailer automation.
- \* Chemical & petrochemical industry.

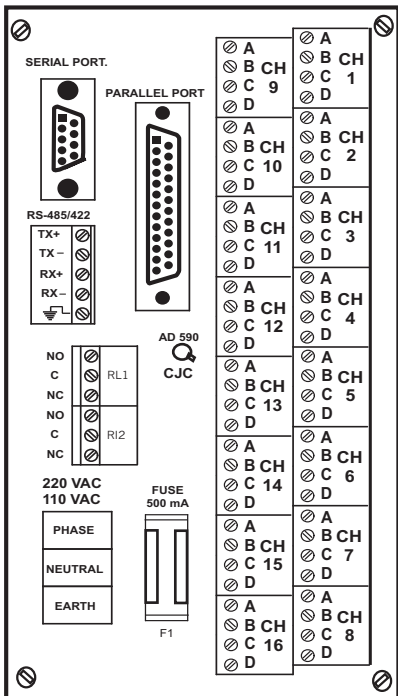
# TECHNICAL SPECIFICATIONS (tC-1600):-

No. of I/P channels: Maximum upto 16 Channels in any Input combination as per users requirement.

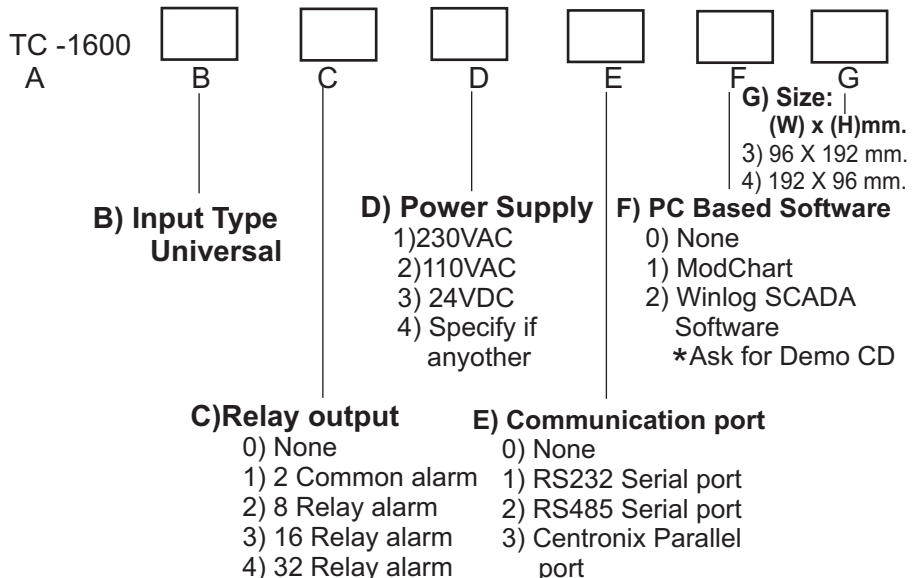
## \* INPUT & RANGE :-

INPUT	RANGE		RESOLUTION	ACCURACY
	Minimum	Maximum	NORMAL	FULL SCALE
PT-100 (3 WIRE)	-99.9°C	500.0°C	0.1	0.25%
J (FE-CON)	-99.9°C	450.0°C	0.1	0.25%
K(Cr-Al)	-99.9°C	500.0°C	0.1	0.25%
K(Cr-Al)	-100°C	1200°C	1	0.25%
R(PT-13%Rh/PT), S(PT-10%Rh/PT)	0°C	1750°C	1	0.25%
T(Cu/Con)	0.0°C	400.0°C	0.1	0.25%
4 to 20mA / 0 to 20mA	-9990	15000	Programmable By user	0.25%
0 to 1 VDC / 0 to 10 VDC	-9990	15000		

- Compensation** : Automatic Cold Junction Compensation for all thermocouples
- .Display** : 5 digits of 13 mm. height L.E.D for process value display.  
: 2 digit of 13mm. height L.E.D for channel number display.  
: 32 L.E.Ds for Alarm Indication. AL1 & AL 2.  
: 8 L.E.Ds for TX, RX, HOLD, PROG., Common relay output status.
- Setting** : 8 feathers touch keys on front panel.
- Alarm** : 2 independent set points individual for each channels with 2 common relay output.
- Output** : 1 NO/C/NC Relay contact rated 230V/5A for relay1 (AL1) & relay2 (AL2).
- Port** : RS-232/RS-485 Serial port with Modbus output or parallel centronics port for 80 column computer printer for direct printout.
- Supply** : 230VAC ± 10%, OR 110VAC ± 10%, 50Hz.
- Mounting** : Panel mounting.
- Dimension** : 96(W) X 192(H) X 350(D) in mm. , 192(W) X 96(H) X 350(D) in mm.
- Cutout** : 92(W) X 186(H) in mm. , 186(W) X 92(H) in mm.
- Cabinet** : M.S. Powder coated panel mounting type.
- Optional** : a) Datalog Data Acquisition windows based software for real time Trending..  
b) Parallel port for direct printout on 80 column dot-matrix / printer without need of computer(PC)  
c) Individual relay O/P can be given for each channel or with grouping O/P.
- Weight** : 3.5KG gram (approx.).



## ORDERING INFORMATION:



BACK VIEW