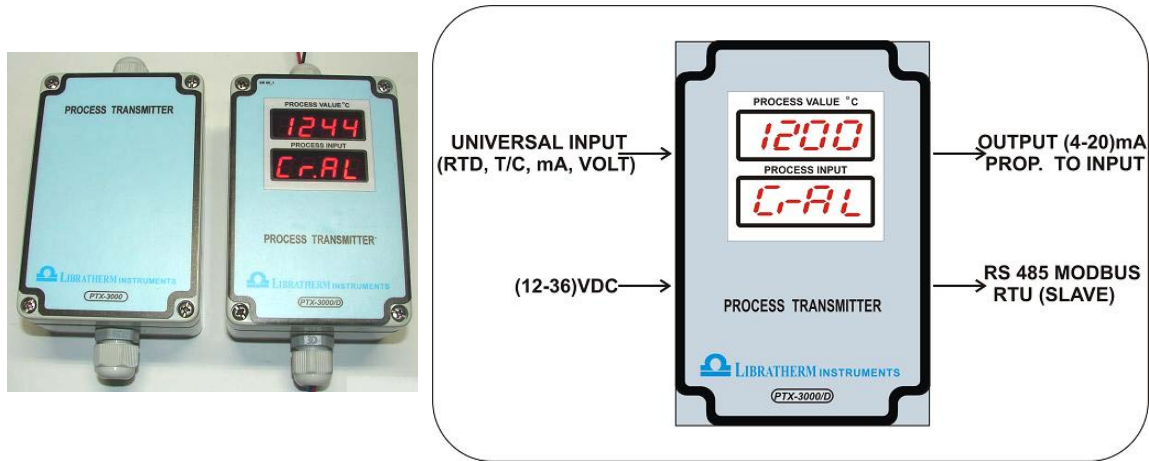


## PROCESS TRANSMITTER WITH RS 485 INTERFACE (MODEL PTX-3000)



### **FEATURES:**

- \* Microcontroller based design.
- \* Universal input (user selectable).
- \* Isolated 4-20mA proportional and linearized for the selected input.
- \* RS485 MODBUS RTU serial interface.
- \* Bright red LED display.
- \* IP 65 ABS plastic enclosure.
- \* Operates on 12 to 36VDC.

### **Product Description:**

Librathem offers micro-controller based Process Transmitter model **PTX-3000** for measuring and transmitting the analogue and digital values proportional to the Process Input. This model can accept universal input, which is user selectable using internal DIP switch. Three options are available, where user can specify the desired model for universal input or any of the two fixed input or any of the single fixed input. The isolated current output of 4-20mA proportional and linearized (for very accurate indication) to the process input is available for remote measurement and indication. For the dual input model PTX-3000/T, two independent 4-20mA are available. To suit industrial requirement these transmitters are available with and without display. For serial interface with PLC or DCS or with any other process

controller – digital serial communication on RS485 bus with MODBUS RTU protocol in slave mode is also provided. Using the feature of RS 485 interface is advantageous, since number of wires coming from the various sensors can be avoided and instead of that only two wires can be used to interface multiple such PTX-3000 on serial port. For example, for a large heating system incorporating 16 thermocouples, under conventional method 16 dual core cables will run from the system to the control panel, where as in case of RS485 interface, only two wires will run from the system to the control panel. Another advantage of RS485 interface is that, when to be interfaced with PLC – the additional analogue module is not required, since most PLC accepts RS485 interface on MODBUS RTU protocol.

Model	Description
PTX-3000 /U	Process Transmitter – with universal input (8 user selectable)
PTX-3000/UD	Process Transmitter – with universal input and with display
PTX-3000/T	Process Transmitter – with two fixed input
PTX-3000/TD	Process Transmitter – with two fixed input and with display
PTX-3000/F	Process Transmitter – with single fixed input
PTX-3000/FD	Process Transmitter – with single fixed input and with display

### **TECHNICAL SPECIFICATIONS:**

<b>Input Sensor</b>	J,K,R,S,B thermocouple or RTD (Pt-100) or mV, mA signal
<b>Range</b>	Full range of the selected input – desired measuring range can be specified by the user.
<b>RH Range</b>	0.0 to 100.0 %RH
<b>Accuracy</b>	Software linearized to +/-1 °C for thermocouple input and +/-0.1oC for Pt-100 input. For other inputs – the accuracy is absolute to the input.
<b>Power Requirement</b>	24VDC @ 300mA (12 to 36VDC)
<b>Output 1</b>	4-20mA proportional to the specified range of the user selected input or the specified input. (12 bit resolution).
<b>Output 2</b>	4-20mA proportional to the specified range of the second specified input. (12 bit resolution).
<b>Loop Resistance</b>	RLmax = 150 Ohms with internal 5VDC supply and RLmax = 600 Ohms when external 24VDC is used.
<b>Display</b>	4 digit each - 0.3” red seven segment LED. 4 digit each for two input models.
<b>Connection</b>	5 wire connection for supply and current output
<b>Serial Communication</b>	Isolated 2 wire RS485 MODBUS RTU Slave protocol
<b>Enclosure (Size)</b>	ABS plastic IP-65 (120 x 80 x 55) mm.

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