

User Manual TP1000

Introduction: The TP1000 is an industrial transceiver. It is designed to operate in conjunction with a TP550 Temperature Probe.

Technical Specifications:

Power: 9-24 VDC input, 12VDC Nominal
Temp Range: -20C to +85C
Frequency: 433MHz
Case Material: ABS
Antenna: ANT-433-CW-HD from Linx Technologies.

Basic Operation:

If the TP1000 is not operated with a control interface connected then the only necessary connections to the unit is the power cable and the external antenna. Those connections are described below.

The TP1000 (Base) operates in Receive mode unless it gets a request for acknowledge from a TP550 (Probe). The Base, once it receives a legitimate packet, will send an acknowledge back to the Probe, process the information and store it. The Base will only send Probe data to an outside user when asked for it (ex: If an industrial control requests data via the RS485 port).

The packet the Base receives is roughly 16.66ms long. The acknowledge packet sent out, after receiving a legitimate message, is also roughly 16.6ms in length.

The whip antenna will attach via a bulkhead RPSMA connector located on the side of the TP1000 case. The standard cable length is approximately 36". The whip antenna is designed to be mounted on a ground plane at least four inches square. Reliable communications cannot be guaranteed when a smaller ground plane is used. A larger ground plane, if possible, is preferred.

The Base is powered via the 5 pin, green connector located on the side of the case. The pinout is as follows:

Pin 1: RS485A
Pin 2: RS485B
Pin 3: 9-24VDC
Pin 4: GND
Pin 5: GND

Care should be taken not to connect up power to any pin besides Pin 3.

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.