

This Quick Start Guide is designed to familiarize the user with the connection and configuration of the DTS 310 DIN rail mounted single / 3-phase power & energy meter with LonWorks TP/FT-10 communications.

1. Supplied Items

Check that the meter and equipment matches your order specifications and has not been damaged during shipping. The following component(s) are included in the package:

- Quick Start Guide (**DTS 310 Application / Connection Examples** in section 2)
- DTS 310 power & energy meter
- 24V DC Power Supply

2. Connecting the DTS 310

Wiring Voltage and Current Inputs



The DTS 310 accepts voltage inputs directly up to 600 3 phase L-L or through PT's (potential transformers) for higher voltages. 3-phase currents are measured via "safe" mA or voltage input CT's (current transformers). Connection of any other CT than that supplied by Micro Thermo with the meter could cause damage to the instrument. **If there are any questions please call before powering up the unit.** Please refer to **Application/Connection Examples** for information on wiring conventions.

Input wiring terminals are clearly indicated and located on the upper side of the DTS 310 label. The Current and Voltage terminal strips are pluggable to allow easy replacement of the DTS 310, if required. Removing the terminal strips should only be done once power has been removed from the DTS 310. Input wiring terminals accept up to 2.5 mm² (12 AWG) wire. The wires are connected by means of screw terminals that clamp down onto the input wires. The voltage/PT inputs require fuses, not included, (see diagrams below) and should be rated at 1A 600Vac. Micro Thermo can provide an in-line fuse kit as an option if required.



Wiring Optional Auxiliary Power Input (AUX)

The DTS 310 operates normally when power is applied to Phase A, Phase B and/or Neutral depending on model number so no additional auxiliary power supply is needed. To provide added flexibility to the DTS 310 meter, it can be powered from a 24V DC auxiliary supply. (Fuses not included with meter but are offered as an option).

Note: It is important to pay attention to the polarity when using a DC power supply. See label above for a reference to the polarity. Incorrect connection **will** damage the DTS 310.

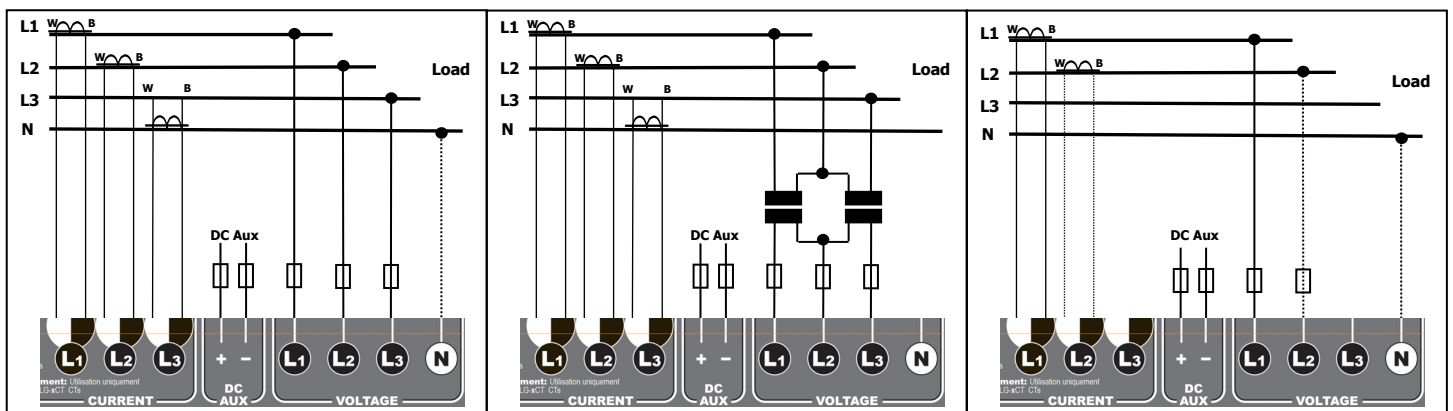
The following connection diagrams depict some examples of typical applications. Other connection configurations are possible. (Consult Micro Thermo)

Application/Connection Examples

3 Phase, 3 Wire/4 Wire (low voltage)

3 Phase, 3 Wire (2 Potential Transformers & 3 CTs)

1 Phase, 2 or 3 Wire

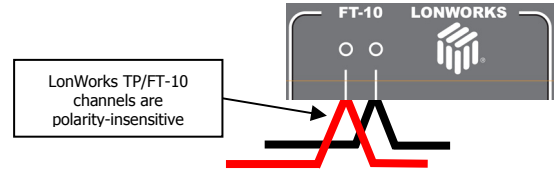


Wiring the LonWorks Communications Interface

The LonWorks model of the DTS 310 has a 2-wire TP/FT-10 port.

LonWorks TP/FT-10 Communications

The LonWorks TP/FT-10 port is connected by means of a pluggable 2-way screw terminal that accepts up to 2.5 mm² (12 AWG) wire. The terminals are not polarity-sensitive. One or more DTS 310 meters can be wired into the Micro Thermo free-topology controller network. All wiring must meet the Micro Thermo Standard Wiring Guidelines. Micro Thermo recommends the use of Belden 8471 (16 AWG) or Belden 8461 (18 AWG) unshielded twisted pair communications cable for all network wiring. Equivalent cables that meet the exact electrical specifications may be used.

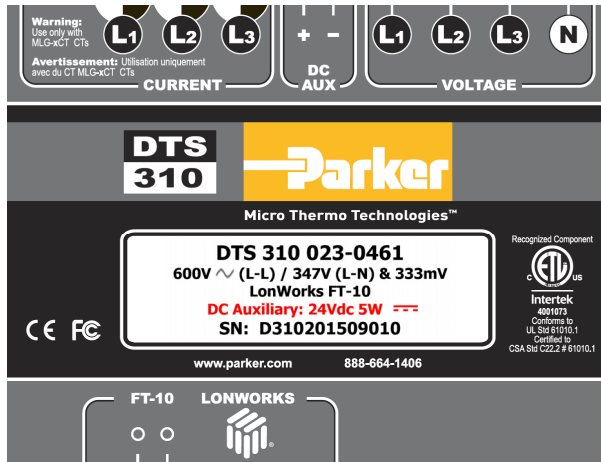
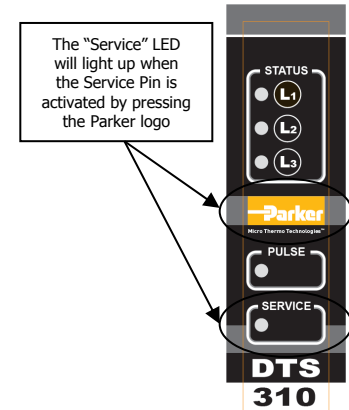


LonWorks Service Pin

When adding the DTS 310 to a LonWorks system that can utilize a Service Pin Message to commission devices, the Service button can be accessed by opening the hinged window on the DTS 310 faceplate and gently pressing the Parker logo. The button will give a small amount of tactile feedback when pressed and the "Service" LED will light up **RED** until it is released.

Neuron ID

If the LonWorks system being used cannot utilize a Service Pin Message to obtain the Neuron ID of a device or it is preferable to commission the DTS 310 manually, the unique Neuron ID can be found on the device referred to as the "NID", as seen in the example below.



If there are any questions, please contact:

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