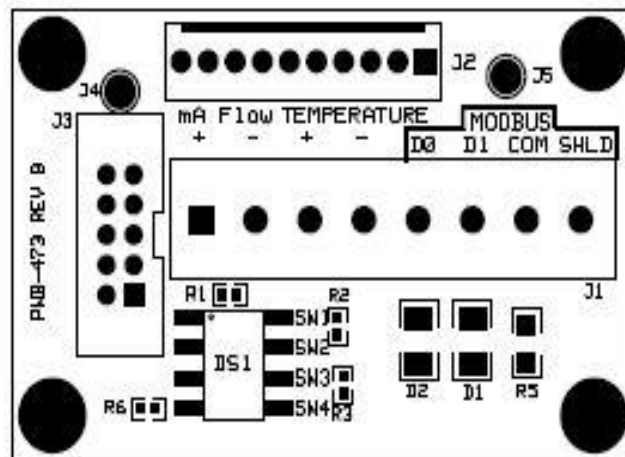


9500M Electronics with RS-485 Interface and Modbus RTU protocol

This meter used a standard RS-485 as the hardware interface with the Modbus RTU protocol. Modbus ASCII and Modbus TCP are not supported. Naming conventions for the RS-485 interface are per the latest revisions of the Modbus over Serial Line Specification and Implementation Guide V1.02 and the Modbus Application Protocol Specification V1.1b3. These documents can be obtained at www.modbus.org.

RS-485 Wiring



Modbus Termination and Jumpers

Modbus Termination Point J1

- D0 Inverted Modbus Input
- D1 Non Inverted Modbus Input
- COM Modbus return
- SHLD Drain wire from Modbus cable shield

SW1 Modbus 120 ohm Termination Resistor

- OFF No Termination
- ON Modbus Terminated

SW2 Positive Bias Resistor Jumper

- OFF No Bias
- ON Modbus Positive Bias

SW3 Negative Bias Resistor jumper

- OFF No Bias
- ON Modbus Negative Bias

SW4 Not used

RS-485 Communications settings

The meter is preconfigured for serial communications at 9600 baud, even parity, 8 data bits, 1 stop bit. These settings can be changed in the field by using the TICO Parameter Setup Utility software tool.

Slave ID

The unit is shipped from the factory with the Slave ID set to 1. This setting can be changed in the field by using the TICO Parameter Setup Utility software tool.

Modbus Function Codes Supported

The only function supported in this version is the Read Holding Register. As described below.

| Reg Type | Modbus Addr | Data Type | Description |
|----------|-------------|-----------|-------------------------|
| Holding | 40001 | Float | Mass Flow in eng units |
| Holding | 40002 | Float | Mass Flow in eng units |
| Holding | 40003 | Float | Mass Total in eng units |
| Holding | 40004 | Float | Mass Total in eng units |

The float values are sent in the normal order mode as accepted by most Modbus masters. The float values can be changed to Swap Word Order, Swap Byte Order, or Swap Both Word and Byte Order by using the TICO Parameter Setup Utility software tool.

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