EtherMeter®

PRE-START CHECKLIST

Model EM-100 EtherMeter®
Flow Meter Gateway for SCADA, Telemetry & Building Automation Systems
by SCADAmetrics

Before getting started with the EtherMeter®, make sure you review the following checklist!...

1. Specification Review. Make sure you have reviewed the EtherMeter's engineering specifications, which are listed in both the Brochure and User Manual.

2. Flow Meter. Make sure your flow meter is compatible. For AMI-type (absolute-encoder) meters, check the "EtherMeter Compatibility Matrix PDF" on scadametrics.com.

3. Meter Pre-Programming. If the flow meter is an AMI-type, does it require factory or field pre-programming? If so, make sure that it has been pre-programmed according to SCADAmetrics' recommendations in the document "EtherMeter Compatibility Matrix PDF".

4. Pulse-Output-Type Meters. If the flow meter is a pulse-output-type, is it a dry-contact or open-collector signal (Compatible with EtherMeter!)?... or a voltage-output-type (Not Compatible with EtherMeter!). Research, in advance, the number of expected pulses per registration unit.

5. Pre-Determine Meter Encoder Type and Resolution. If the meter is an AMI encoder-type, note that the encoder signal is transmitted to the EtherMeter as a simple integer value. The user should determine, in advance, the following characteristics of the encoder signal:

How many digits?   4 , 5 , 6 , 7 , 8 , 9
(circle one)

Registration unit?   Gallons , FT^3 , M^3 , Acre-Ft
(circle one)

Multiplier?   x0.1 , x0.01 , x0.001 , x0.00001
(circle one)   x1 , x10 , x100 , x1000

Encoder Protocol?   a. Neptune , b. Elster/AMCO/Honeywell ,
(circle one)   c. Sensus/Everything Else

6. Meter Cable. 4-Conductor or 3-Conductor (application-dependent), Shielded w/ Drain Wire.
4-Conductor w/ Drain: General C1352A or Belden 8723
3-Conductor w/ Drain: General C2526A or Belden 8771

7. Panel Mounting. The EtherMeter mounts onto standard 35mm industrial din-rail. Din-rail is not included, and should be purchased separately.

8. Power Supply. The EtherMeter requires an External, Isolated DC Power Supply; but does not ship with a power supply unless specified. The acceptable voltage range is 10-36VDC. Do you have the correct Power Supply? SCADAmetrics offers several units. The most popular is our din-rail-mountable MDR-20-24 (24VDC/20W).

9. Setup Tools. Do you have the necessary setup tools for configuring the EtherMeter?
- Windows-Based Notebook Computer – Not Included
- USB-Serial Adapter Cable – Not Included
   Available from many online stores
   Available from shop.SCADAmetrics.com
- HyperTerminal Private Edition S/W – Not Included
   Downloadable from Hilgraeve.com (Not Free)
- DB9F/DB9F Null Modem Adapter – Not Included
   Available from many online stores
   Available from shop.SCADAmetrics.com

10. Enclosure. The EtherMeter requires an external NEMA enclosure (not included). An enclosure should be selected that matches your application, and purchased separately. The dimensions of the EtherMeter, Power Supply, and any other accessories should be considered when selecting an enclosure. SCADAmetrics has recently introduced an Outdoor/Indoor Enclosure Option. Please inquire for details.

11. Documentation. Visit the scadametrics.com Documentation page to download the documents of interest. At a minimum, the User Manual and Meter Compatibility Matrix documents are recommended. Various Application Notes are also available to assist with common metering scenarios. The documentation should be studied in advance, paying particular attention to the sections detailing the Wiring Diagrams and HyperTerminal Setup. Please note that Hardcopy User Manuals do not ship with your order: All documents are provided as download-only.

12. Meter Signal Splitting. Does the AMI-type meter need to be read by another device in parallel to the EtherMeter? We manufacture two signal duplexers, the Model SDA (Din-Rail-Mount) and Model SDAW (Wall-Mount). Each are sold separately. Please note that utility-owned meters require permission and/or approval from the utility before connecting an EtherMeter and/or Duplexer.

13. Networking. The EtherMeter can communicate its meter readings using various industrial protocols, including: Modbus/TCP, Modbus/UDP, EtherNet/IP™, Modbus/RTU, Modbus/ASCII, and DF1. The type of networking should be planned in advance. If Ethernet-based, the following LAN networking parameters should be readied for programming into the EtherMeter: IP Address, Gateway, and Netmask.