SCADAMETRICS
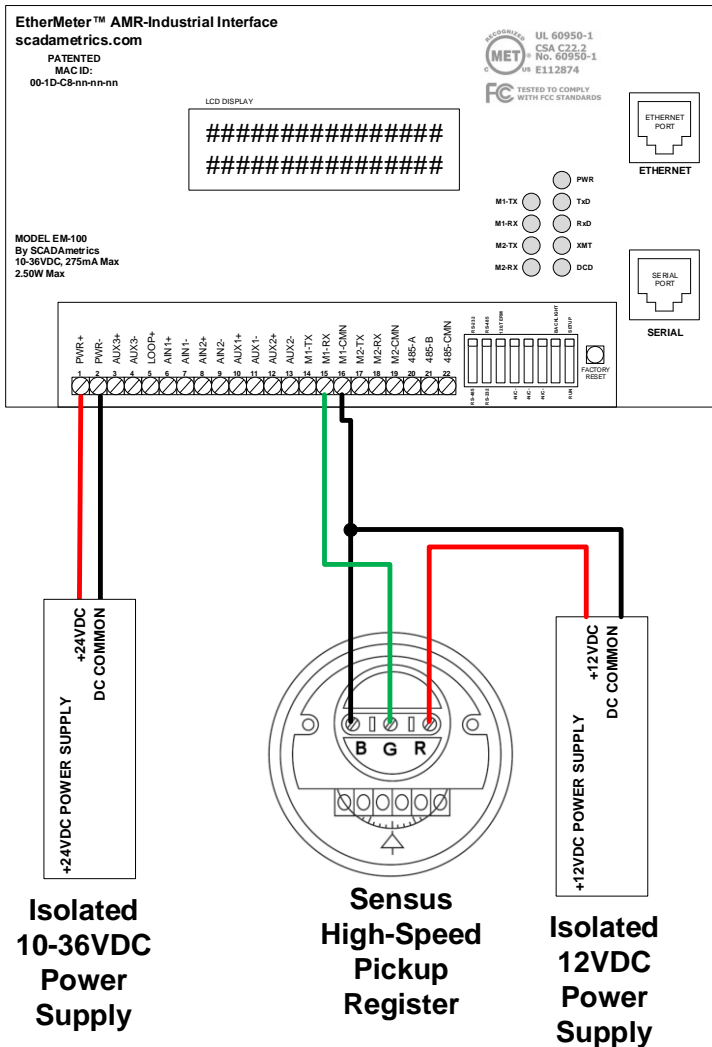APPLICATION NOTE

Connecting A Sensus E-1116 High-Speed Pickup Register (Pulse-Based Register) to the EtherMeter.

This document describes the wiring procedures and EtherMeter settings required when connecting to a Sensus E-1116 High-Speed Pickup Register.

Wiring A Sensus E1116 High-Speed Pickup to EtherMeter Meter Channel #1:

Important Wiring Notes:

1. The E1116 High-Speed Pickup and the EtherMeter **MUST** be powered from **SEPARATE, ISOLATED DC POWER SUPPLIES.**

2. The Power Supply for the High-Speed Pickup **MUST be +12VDC Isolated (NO EXCEPTIONS!)**. The Power Supply for the EtherMeter may be 10-36VDC Isolated (Nominally +24VDC).

Figure 1. Sensus High-Speed Pickup Register and EtherMeter.

Using a serial setup cable (P/N EM-439), and referencing the EtherMeter User Manual, the EtherMeter should be configured for pulse input on the appropriate meter input channel. For example, a Sensus 4 Inch Turbo Meter with E1116 Register (1242 Pulses Per 1000 Gallons) connected to EtherMeter Meter Input Channel #1:

SETUP COMMAND:	PURPOSE:
`SET  PWR1    0`	SET METER CHANNEL #1 INPUT AS PULSE-TYPE
`SET  DB1     1`	SET DEBOUNCE TO 1 MILLISECOND
`SET  PS1     1000`	PULSE SCALOR (1000 GALLONS)
`SET  PD1     1242`	PULSE DIVISOR (1242 PULSES)
`SET  FCALC1  DTOTAL`	FLOW CALCULATION METHOD: FIXED DELTA-TOTAL
`SET  SAMP1   5`	UPDATE FLOW-RATE CALCULATION EVERY 5 SECONDS
`SET  TO1     5`	SET FLOW-RATE TO ZERO IF NO PULSES IN PAST 5 SECONDS
`SET  CNT1 <CURRENT READING>`	SYNC ETHERMETER WITH VISUAL METER READING

In this configuration, Meter Total 1 is digitally available in MODBUS Register 40001-2 (Allen Bradley Register N7:0-1), and Flow 1 is digitally available in MODBUS Register 40005-6 (Allen Bradley Register N7:4-5).