Product Engineering Guide

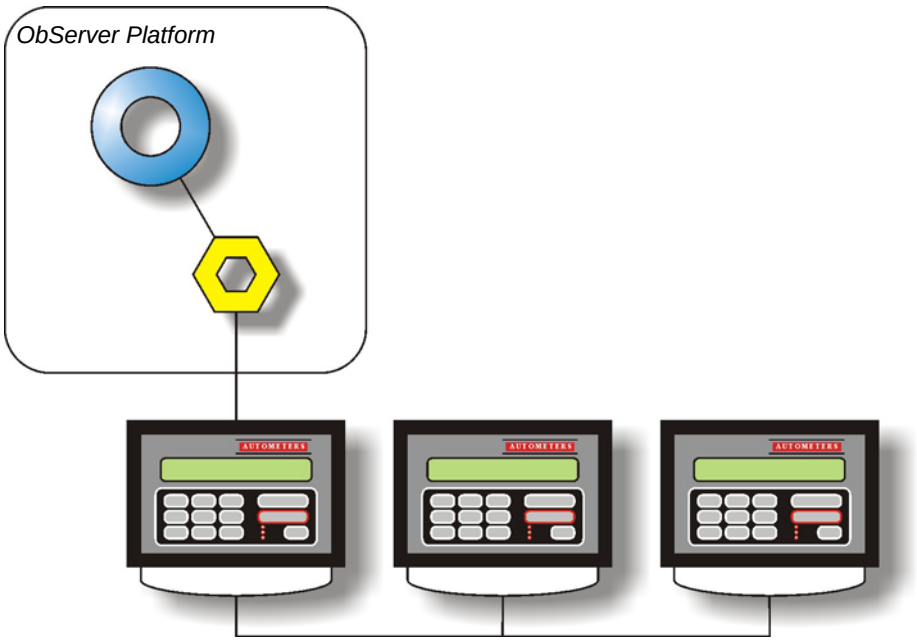
OSM v20 AutomtrJ v11

Introduction

Please note: This is a legacy driver for existing installations of IC meters (prior to 2003) and IC800 series meters. Newer Autometers meters use either the AutomtrEVO driver (installations prior to 2009), or the JBUS driver. The AutomtrEVO driver is compatible with EVOIC3, IC990, IC7, IC9; and existing installations of IC970 (prior to 2009).

The AutomtrJ OSM links a network of Autometers IC Series power meters fitted with the Modbus communications cassette to ObServer. Up to 32 power meters can be accessed from the OSM.

Supported meters include the IC2000, IC1000, and IC800 series. Information available from each Autometers power meter includes phase (voltage, current, power factor, frequency), maximum demand (current, power) and total system readings.



Engineering

Step 1 – Install OSM

The AutomtrJ OSM is installed automatically with all ObSys editions. Refer to the 'ObSys CD sleeve' for details on how to install ObSys.

Step 2 – Configure Autometers MODBUS Cassettes

Configure each of the Autometers MODBUS cassettes using the switch blocks SW1 and SW2 located inside the cassette. Each cassette should have a unique address and the same baud rate.
The 8 switches located in block SW1 are used as follows:

Switch	***Setting***
1 - Baud Rate	OFF=9600, ON=19200
2 - Baud Rate	Always OFF
3 - Protocol	Always ON (Modbus)
4 - Wire Mode	Always OFF (2 wire)
5 - Modbus Type	Always ON (RTU)
6 - 4 Wire Parity	Always OFF
7 - Format Mode	Always OFF
8 - Bank Select	Always OFF

The address of the meter on the network is set by SW2, with a binary address in the range 1…63.

Examples:

	switch					
Address	***1***	***2***	***3***	***4***	***5***	***6***
Address 1	ON	OFF	OFF	OFF	OFF	OFF
Address 16	OFF	OFF	OFF	OFF	ON	OFF
Address 28	OFF	OFF	ON	ON	ON	OFF

Step 3 – Connect COM Port to Autometers System

Using cable, connect the Autometer network, via an RS485 to RS232 converter, to a COM port of the PC. Refer to the section 'Cable' below for details of the cable.

Step 4 – Plug in AutomtrJ OSM to ObServer

Use object engineering software to locate the ObServer Setup object. Assign the AutomtrJ OSM to an available channel. Refer to *'ObServer v20 Application Engineering Guide'.*

Note: After inserting the OSM, your engineering software may need to re-scan the ObServer object in order to view the OSM.

Step 5 – Configure AutomtrJ OSM

The COM port and baudrate are configured using objects. Use object engineering software to view and modify the module objects within the OSM.

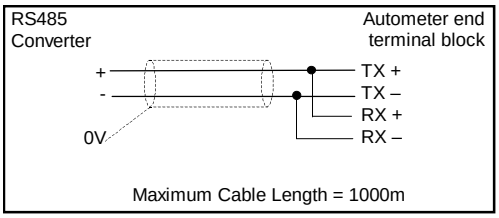
Step 6 – Access Objects within the Autometers System

Values from the Autometers system are made available as objects from ObServer. Any object software that is connected to the ObServer can access these objects.

Cable Specification

The Autometers network is connected to ObServer using a RS232 to RS485 converter. The COM port is connected to the converter, which is then connected to the network. The earthing screen or braid of the RS485 cable should be connected **as close as possible** to the 0V terminal at one end only. **Do not connect the earthing braid of a single cable run to more than one unit, be it converter or device.**

The cable between converter and the Autometers network is as follows:



Objects

When the OSM is loaded the following objects are created within ObServer, use object software to access these objects.

Object [1]	***Label***	***R/W***	***Type***
S*c*	Autometers System connected to channel *c*	-	*[Autometers]* [2]
M*c*	AutomtrJ Module connected to channel *c*	-	*[OSM v20\AutomtrJ v11]*

Notes

[1] The ObServer channel number, *c*, is a number in the range 1…40.

[2] This object has a variable content and as such requires scanning.