

CAS-2700-40**OPW Fuel Management Systems Gateway
Modbus (RTU and TCP) and BACnet IP and
Web (HTML, REST, JSON, XML, CSV, COSM)****Description**

The OPW Fuel Management Systems Gateway uses the Veeder Root TLS 350 protocol to poll for status, real time and configuration data. Thus the driver can be used to read Tank Inventory, System Status, Tank Alarms, Sensor Alarms and more.

The Gateway serves data from an OPW Fuel Management System as Modbus, BACnet or Web data. The Gateway supports all these options simultaneously. Use the data you want and ignore the other.

The Gateway connects to the OPW Fuel Management System, reads data and stores it internally. When a remote system requests data, this data is served in a form that is appropriate to the protocol. In the event that the connection to the OPW Fuel Management System is lost, or data cannot be read, the Gateway can signal this to the remote data client.

The Gateway requires minimal configuration and can be considered a plug and play component of a system, in that it is ready to operate out of the box with the default configuration.

The driver is a serial driver using a RS232 serial port to connect between the Gateway and the OPW Fuel Management System. The Panel must have a suitable RS232 card installed that can support the Veeder Root TLS 350 protocol.

Specs

- **UL and ULc approved**
- 10/100BaseT with RJ-45 connector
- 1x RS232 Port
- 1x RS485 Port (Different Models have additional ports)
- 2MBytes flash memory, 8MBytes of SDRAM
- Power: 5-24VDC
- Operating Temperature: 0 to 70 C
- Dimensions: 4.2" x 3.25" x 1"
- LEDs: Link, Speed/Data, Power

Max Nodes Supported

Gateway Mode	Nodes	Comments
Client	1	<i>Only 1 Fuel Management System per connection</i>
Server	0	<i>Not supported or documented.</i>

Connection Information - Port 1: Veeder Root TLS 350 Port

Connection type:	RS232
Baud Rates:	Driver Supports : 1200, 2400, 4800, 9600 ; 19200Baud
Data Bits:	Driver Supports : 7, 8
Stop Bits:	Driver Supports : 1,2
Parity:	Driver Supports : Odd, Even, None
Hardware interface:	N/A
Multidrop Capability	No

Connection Information - Port 0: Modbus RTU Server Port

Connection type:	RS485 (Jumper change to RS232)
Baud Rates:	9600 ; 19200 Baud
Data Bits:	8
Stop Bits:	1
Parity:	None
Hardware interface:	N/A
Multidrop Capability	Yes

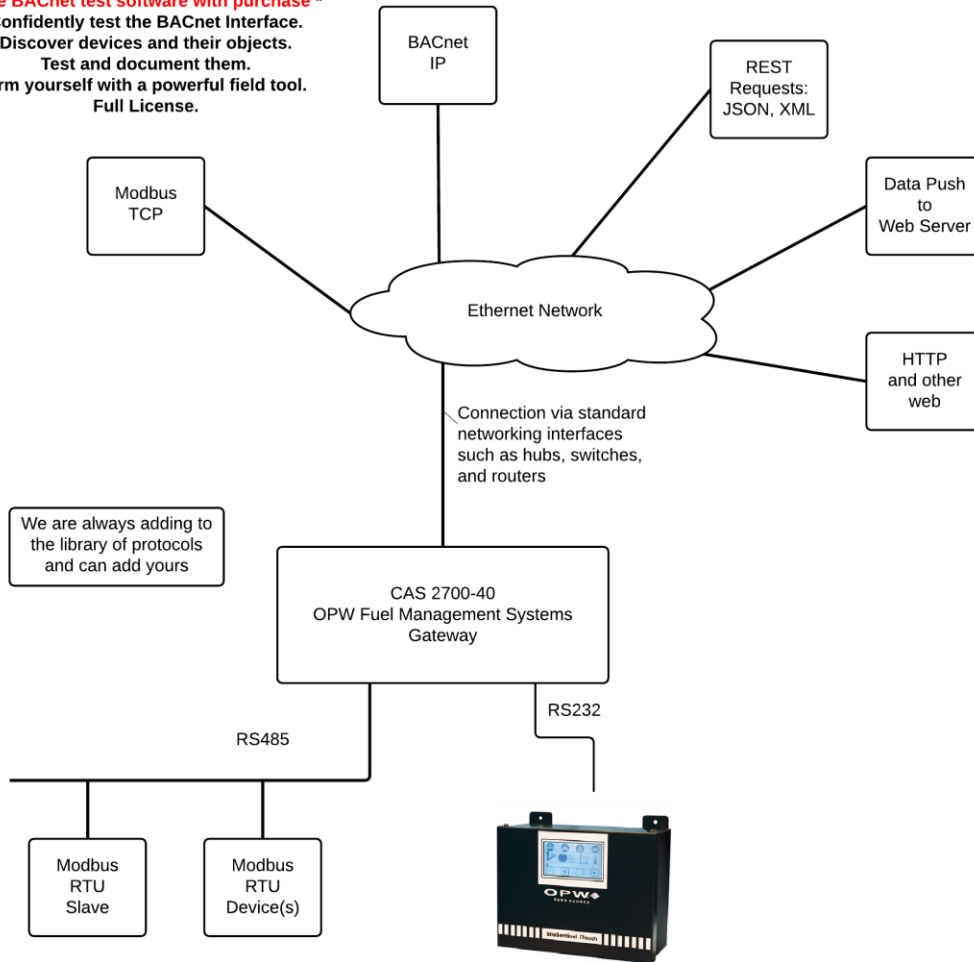
Devices tested

Device	Tested (FACTORY, SITE)
SiteSentinel iTouch	Tested
SiteSentinel iSite	Tested
OPW 1500	Does not support TLS 350 Only supports TLS 250 – please contact us for more information

Connection configurations

Monitor and Control **OPW Fuel Management Systems using BACnet, Modbus or Web**

Free BACnet test software with purchase *
Confidently test the BACnet Interface.
Discover devices and their objects.
Test and document them.
Arm yourself with a powerful field tool.
Full License.



Driver Operation

The driver can be configured to execute any of the commands in the 'supported function' list. The data sent is stored internally in the Gateway and is made available to other protocols (Modbus RTU, Modbus TCP, BACnet IP and HTML) .

The frequency with each data point is read is configurable. The driver retries on errors or timeouts. If the data cannot be read then after some configurable time it is marked as out of service.

The driver reports operating stats and issues on a web page, maintains a log that can be uploaded by HTTP or ftp.

Configuration

Via Web Page. Configure IP settings, Node ID's, Baud Rate and other parameters.

Users are able to select

Up to 10 Tanks – specify the number and name of each

Up to 10 Sensors – specify the number and name of each

Up to 1 Vacuum Sensor – specify the number and name of each

The names are used to form the names of the BACnet objects and populate the web page showing current values.

Use can specify

ModbusTCP: Node_ID, Port

ModbusRTU: Node_ID, Baud, Parity, Data bits, Stop bits

BACnet: Device instance number, Device name, Port.

TLS 350: Baud, Parity, Data bits, Stop bits

To pre-configure the Gateway before shipping, you must provide the Setup Report that contains the list of Tanks and Sensors installed on the Fuel Management System. Also provide the Product Number of the Fuel Management System. (e.g. SiteSentinel iTouch)

Communications functions

Supported functions.

Not all of the Veeder Root TLS 350 communication functions are supported. The following functions are supported by the Web based configuration. Additional functions are supported but must be configured manually.

TLS 350		
COMMAND		
101	System Status Report	
201	In-Tank Inventory Report	
202	In-Tank Delivery Report	
203	In-Tank Leak Detect Report	
406	Relay Status Report	
B38	Vacuum Sensor Report	

The driver will not send the next command until a response has been received from the previous or until a timeout has expired.

Support

This driver was developed by Chipkin Automation Systems (CAS). CAS are proud to provide support for the driver. For support please call CAS at (866) 383-1657.

Revision History

Date	Resp	Driver Ver.	Doc. Rev.	Comment
2014Oct02	ACF	0.15	0	Created