FieldServer Protocol Driver Sheet
Veeder-Root Serial Driver

FS-8700-74 Version: 1.04 / Rev. 3

1 DESCRIPTION

The Veeder-Root Serial Driver allows the FieldServer to transfer data to and from devices over either RS-232 or RS-485 ports using Veeder-Root protocol as defined in Veeder Root Document 576013-635 Revision J. The Veeder-Root Driver supports TLS350 as per Veeder-Root Document 576013-635 Revision Y, and TLS450 as per Veeder-Root Document 577013-950 Revision G. Since the data protocol is the same for the TLS-350+ as for TL-S350, it is assumed that the driver will support the TLS350+ but this has not been tested. The Driver also successfully communicates with the TLS-450 as it has the same data protocol. Please refer to the driver manual for hardware connections.

The FieldServer emulates a Client.

The Veeder-Root Serial Driver is a poll response driver. Only one query or command can be processed at a time.

A limited set of the queries and commands defined in the protocol specification have been implemented. The reason for the limitation is two-fold. Firstly, not all commands/queries will have any meaning to a Server device as they are principally defined to configure the Veeder-Root Device. Secondly some commands return very complex data sets which cannot be processed in a method suitable for loading into the FieldServer's Data Arrays.

The driver is capable of exposing its communications statistics which allows them to be monitored using a Server device.

1.1 Connection Facts

FieldServer Mode	Nodes	Comments
Client	1 to 8 depending on the FieldServer Type.	Only one node can be connected per port.

2 FORMAL DRIVER TYPE

Client Only

3 COMPATIBILITY MATRIX

FieldServer Model	Compatible with this driver
FS-x30	Yes
SlotServer	Yes
ProtoNode	Yes
QuickServer FS-QS-10xx	Yes
QuickServer FS-QS-12xx	Yes
ProtoCessor FPC-ED	Yes
ProtoCessor FPC-ED4	Yes

4 CONNECTION INFORMATION

Connection type: RS-232 or RS-485 (Half-Duplex)
Baud Rates: Standard baud rates up to 9600 (TLS-350), 115200 (TLS-450)
Data Bits: 7,8
Stop Bits: 1,2
Parity: Odd, Even, None
Multidrop Capability: No

5 DEVICES TESTED

Device	Tested (FACTORY, SITE)
TLS-350	SITE
TLS-450	SITE

6 COMMUNICATIONS FUNCTIONS - SUPPORTED FUNCTIONS AT A GLANCE:

6.1 Supported Functions – TLS-350

The revision number indicates the minimum Veeder-Root firmware revision required for support of the function. The function numbers are hexadecimal numbers.

Function_	Revision_	Description
SYSTEM REPORTS (7.2.1)		
101	1	System Status Report
102	1	System Configuration Report
113	14	Active Alarm Report
114	19	Cleared Alarm Report
IN-TANK REPORTS (7.2.2)		
201	1	In-Tank Inventory Report
202	1	In-Tank Delivery Report

Function_	Revision_	Description
204	1	In-Tank Shift Inventory Report
20D	15	In-Tank Stick Height Report
SENSOR REPORTS (7.2.3)		
301	1	Liquid Sensor Status Report
306	1	Vapor Sensor Status Report
311	1	Groundwater Sensor Status Report
341	2	Type A (2 Wire CL) Sensor Status Report
346	2	Type B (3 Wire CL) Sensor Status Report
34B	4	Universal Sensor Status Report
LINE LEAK REPORTS (7.2.4)		
381	7	Pressure Line Leak Status
386	10	WPLLD Line Leak Status
I/O DEVICE REPORTS (7.2.6)		
401	1	Input Status Report
406	1	Relay Status Report
SYSTEM DIAGNOSTIC REPORTS (7.4.1)		
901	1	Self Test Results Report
902	1	System Revision Level Report
905	15	System Revision Level Report II
CONTROL FUNCTIONS (7.1)		
1	1	System Reset
2	1	Clear Power Reset Flag
3	1	Remote Alarm Reset
31	10	Confirm Clear Function
51	1	Clear In-Tank Delivery Reports
52	1	Start In-Tank Leak Detect Test
53	1	Stop In-Tank Leak Detect Test
54	5	Delete CSLD Rate Table
81	7	Start Pressure Line Leak Test (3.0 GPH only in V18)
82	7	Stop Pressure Line Leak Test
83	10	Start WPLLD Line Leak Test (3.0 GPH only in V18)
84	10	Stop WPLLD Line Leak Test

6.2 Supported Functions – TLS-450

Function_	Revision_	Description
SYSTEM REPORTS		
101	1	System Status Report
IN-TANK REPORTS		
201	1	In-Tank Inventory Report

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