



FieldServer Driver FS8700-82 *Carrier DataLink Serial Driver*

Description

The Carrier DataLink Serial Driver allows variables to be read and written in system elements connected to a Carrier Comfort Network communication bus. Up to 15 system elements may be connected to a DataLink Device. Display, Occupancy, Set Point Tables and Carrier Comfort Network (CCN) variables may be read or written.

The DataLink devices provides a gateway to CCN devices. This driver polls the DataLink device which in turn reads / writes data to the CCN devices.

Carrier limits the number of CCN devices that can be polled from a DataLink Device and also limits the data that can be transferred between some CCN devices and the DataLink device. For information on these limitations please consult the Carrier Corporation.

The driver is an active client driver. This means that it initiates read / write polls with the DataLink device which is expected to provide responses. Server functionality is provided by the in the driver too.

The driver is configured to allow data tables to be read from the CCN devices via the DataLink device. As the tables typically contain more than one data element, the retrieved data is stored in a number of consecutive FieldServer data array locations in the FieldServer. The driver can provide descriptions for each of the table values retrieved.

The driver can be configured to read a specific variable from a CNN device and store its value using optional scaling in a configurable location in a FieldServer data array.

The driver can be configured to write a value (using optional scaling) from a FieldServer data array to a specific variable in a CNN device, provided that the variable allows its value to be written.

The driver has no advanced knowledge of the CCN devices and their data tables. Therefore it cannot validate table names or variables names specified in the configuration file. In addition, this means that the driver handles each table in a generic way, without regard for the particular variables that constitute the tables.

Formal Driver Type

Serial
Client Only

Connection Information

Connection type: EIA232 or EIA485 (Two wire, Half-Duplex)



Protocol Driver



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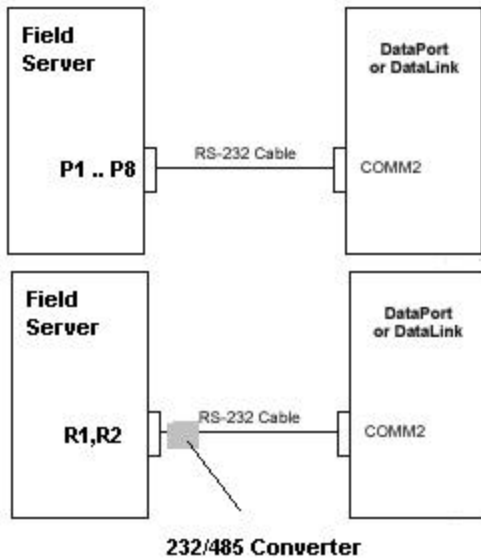
Baud Rates: 300; 1200; 2400; 4800; 9600; (Driver is capable of others, vendor equipment isn't.)
Data Bits: 8 (vendor equipment limitation)
Stop Bits: 1 (vendor equipment limitation)
Parity: None (vendor equipment limitation)
Hardware interface: None
Multidrop Capability: No

Devices tested:

Device	Tested
CEPL130363-01 ER:CESR121289-08	Factory



Connection configurations



Connection Notes

Only one DataLink device can be connected to each EIA232 or EIA485 (with converter) port at a time. This limitation arises from the fact that the message format is node-less; there is insufficient information in one message to differentiate messages from one DataLink device or another.



Communications functions

Supported functions at a glance:

Read Table

Read Variable

Write Variable

Write Table is also used by the driver to write a variable.

Data Types Supported

The driver has no advance knowledge of the number, names, length and contents of any of the data tables to be found in the CCN devices. (These parameters are dependent on the CCN devices). Therefore the driver handles all table variable values as one of the following types; a) numeric values b) occupancy strings c) time values or discrete state's converted to a numeric value. The driver chooses the data type automatically based on the response from the DataLink device.

Limitations and Exclusions

The driver is not capable of configuring the DataLink device. Software provided by the Carrier Corporation is required to do this. The DataLink device requires configuration, so that connects to the appropriate CCN devices on the CCN communications network.

The driver does not read alarms as the response to this query is formatted as ASCII data and cannot be processed in a way that devices upstream from the FieldServer can handle. (RA and AV polls produce an error response)

The driver cannot be configured to act as what the Carrier Corporation identify as an 'Alarm Acknowledger'.

The Carrier DataLink driver does not support the Read Table command with the /C or /N options.

Other limitation and exclusions are described in the driver manual. Read chapter 7.1 for additional information.



Revision History

Date	Driver Version	Document Revision	Resp	Comment
9Apr42002	0.00a	0	PMC	Draft, for internal and customer review only.
26Apr2002	1.00a	0	PMC	Draft for QA and release.