

## 1 DESCRIPTION

The Gardner Denver Auto Sentry ES/RS2000 driver allows the FieldServer to transfer data from devices over either RS-232 or RS-485 using Gardner Denver Auto Sentry ES/RS2000 protocol. The driver can be configured to communicate with ES Controllers with software versions V2.0X, V2.1X and RS2000 Controllers with software versions V4.0X

The client driver implements the following functionality:

- Polls controllers for service and maintenance data.
- Polls controllers for operating mode data.
- Polls controllers for operating data.

The driver can poll up to 8 units connected to one ES/RS2000 Controller. It always sets the active unit on the ES/RS2000 Controller before polling for data even if consecutive polls are for the same unit. This is done to prevent synchronization problems.

Gardner Denver ES/RS2000 Controllers implements three message types for which the driver can poll. The driver does not validate the message data fields for correct values although it does validate data field lengths. For example, shutdown codes reported by V2.1 ES Controllers range from 0 to 27. If a code of 28 is reported, the driver will not flag it as an error since codes have to be interpreted by the operator. However, a message length longer than 2 digits will be reported as an error.

### Max Nodes Supported

FieldServer Mode	Nodes	Comments
Client	1	A client node can communicate with up to 8 units connected to a ES/RS2000 Controller

## 2 FORMAL DRIVER TYPE

Serial

Client Only

## 3 COMPATIBILITY MATRIX

FieldServer Model	Compatible with this driver
FS-x2010	Yes
FS-x2011	Yes
FSx25	No
FS-x30	Yes
FS-x40	Yes
SlotServer	No
ProtoNode	No
QuickServer FS-QS-1010	No
QuickServer FS-QS-1011	No
ProtoCessor FPC-FO2	No
ProtoCessor FPC-FD2	No

**4 CONNECTION INFORMATION**

Connection type:	RS-232 or RS-485 (Two wire, Half-Duplex)
Baud Rates:	1200; <b>9600</b> ; Baud
Data Bits:	<b>7,8</b>
Stop Bits:	<b>1,2</b>
Parity:	Odd, Even, <b>None</b>
Multidrop Capability	Yes

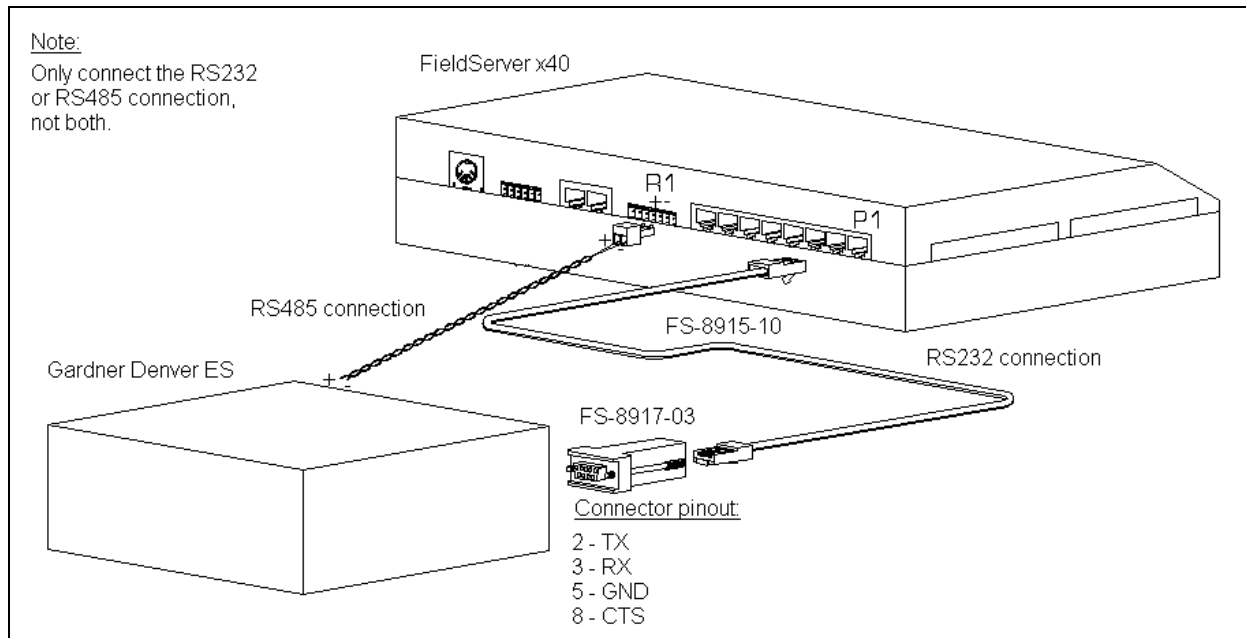
## 5 DEVICES TESTED

Device	Tested (FACTORY, SITE)
AUTO Sentry ES	Site
RS2000	Site

## 6 CONNECTION CONFIGURATIONS

The FieldServer is connected to the ES/RS2000 Controller as shown in the connection drawing below:

Configure the ES/RS2000 Controller according to manufacturer's instructions.



### 6.1 Connection Notes

- If inter-controller communications are set up for the controller, connect to the RS-232 port only.
- If inter-controller communications are not used, connect to either the RS-232 or RS-485 port of the Controller.
- The device should be in sequence mode even if only one unit is connected to ensure response to poll.

**7 COMMUNICATIONS FUNCTIONS - SUPPORTED FUNCTIONS AT A GLANCE:**

**7.1 Read Operations supported**

<b>FieldServer as a Client</b>
<b>Read Service and Maintenance Data</b>
Advisories Shutdown codes Total runtime hourmeter readings @ shutdown codes Current total runtime hourmeter reading Current loaded runtime hourmeter reading Current temp hourmeters Stored temp hourmeters Last maintenance A Last maintenance B Oilage
<b>Read Operating Mode Data</b>
Operating mode indication Sequence number <sup>1</sup> Unit operating state <sup>2</sup>
<b>Read Operating Data</b>
System pressure Filter pressure Discharge temperature Reservoir temperature Motor current <sup>3</sup>

**7.2 Unsupported Functions and Data Types**

Function	Reason
Programming messages	FieldServer is a data transfer device, and as such, programming messages are not required

<sup>1</sup> Only RS2000 & ES V2.10 and later software versions

<sup>2</sup> Only RS2000 & ES V2.10 and later software versions

<sup>3</sup> Not for RS2000