

1 DESCRIPTION

The SMC5000 driver allows the FieldServer to transfer data to and from devices over either RS232 or RS485 using SMC5000 protocol. The FieldServer can emulate either a Server or Client, although the SMC5000 driver is only available in a Client configuration. Any Server drivers are for FieldServer testing purposes only to emulate a Model 5000 Sentry.

The SMC5000 protocol is used to provide report-by-exception (RBE) capability when communicating with the Sierra Monitor's Model 5000 Sentry. The Sentry always acts as a SMC5000 server node. Changes of critical Sentry registers (e.g. concentrations, alarms, etc.) are thus sent to the Client at a higher frequency than normal registers.

1.1 Connection Facts

FieldServer Mode	Nodes	Comments
Client	1	Only 1 client node allowed on Multidrop systems
Server	255	A maximum of 255 nodes can be connected on a multidrop network, although a system performance penalty is paid as more nodes are added. In non-multidrop systems only 1 server node is allowed.

2 FORMAL DRIVER TYPE

Client or Server

3 COMPATIBILITY MATRIX

FieldServer Model	Compatible with this driver
FS-x30	No
SlotServer	No
ProtoNode	No
QuickServer FS-QS-10xx	No
QuickServer FS-QS-12xx	Yes
ProtoCessor FPC-ED2	No
ProtoCessor FPC-ED4	No

4 CONNECTION INFORMATION

Connection type: EIA232 or EIA485 (Two wire, Half-Duplex)
 Baud Rates: 110; 300; 600; 1200; 2400; 4800; **9600**; 19200; 28800; 38400; 57600; 115200 Baud
 Data Bits: 7,8
 Stop Bits: 1,2
 Parity: Odd, **Even**, None
 Multidrop Capability: Yes

5 DEVICES TESTED

Device	Tested (FACTORY, SITE)
Model5000 Sentry	Factory

6 COMMUNICATIONS FUNCTIONS – SUPPORTED FUNCTIONS AT A GLANCE

6.1 Data Types Supported

Field Server Data Type	Description (or Device Data Type)
Analog Input	16-bit Register type
Digital Input	16-bit Register type
Analog Register	16-bit Register type
Digital Register	16-bit Register type
Analog Output	16-bit Register type
Digital Output	16-bit Register type

6.2 Read Operations Supported

FieldServer as a Client	FieldServer as a Server
Read Register (all data types):	Provide Register Statues (all data types):
Direct read, change-of-state (COS) read	Direct read, change-of-state (COS) read

6.3 Write (Control) Operations Supported

FieldServer as a Client	FieldServer as a Server
Write Register (all data types):	Accept Register Statuses (all data types):
Direct writes	Direct writes

6.4 Unsupported Functions and Data Types

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