1 DESCRIPTION

The FieldServer Profibus X30 DP Master driver can be used to transfer I/O data with up to 125 Profibus DP Slave devices. The FieldServer is programmed with an embedded database using the required 3rd party configuration tool. The embedded database contains information on the number of slaves and I/O modules to be transferred with each slave. The tool requires the input of GSD/E files for each slave to be connected.

Max Nodes Supported

FieldServer Mode	Nodes	Comments
Client DPV1 MASTER (CLASS 1) ONLY	125	This is the maximum number of Profibus DP Slaves that can be connected to the FieldServer. A maximum total of 1536 bytes can be transferred with all DP Slaves.

2 FORMAL DRIVER TYPE

Fieldbus
Client Only

3 COMPATIBILITY MATRIX

FieldServer Model	Compatible with this driver
FS-x2010	No
FS-x2011	No
FSx25	No
FS-x30	Yes
FS-x40	No
SlotServer	No
ProtoCessor	No
ProtoNode	No

4 CONNECTION INFORMATION

Connection type:	Proprietary
Baud Rates:	9.6k, 19.2k, 45.45k, 93.75k, 187.5k, 500k, 1.5M, 3M, 6M, 12M bit/s
Hardware interface:	Anybus-M Profibus DP
3rd Party Equipment:	HMS Anybus NetTool for Profibus*[*]

5 PROPRIETARY PHYSICAL INTERFACES SUPPORTED

FieldServer Model	Adapter Model #	Vendor	Physical Medium
FS-B3520	Anybus-M Profibus DP	HMS Networks	Twisted pair

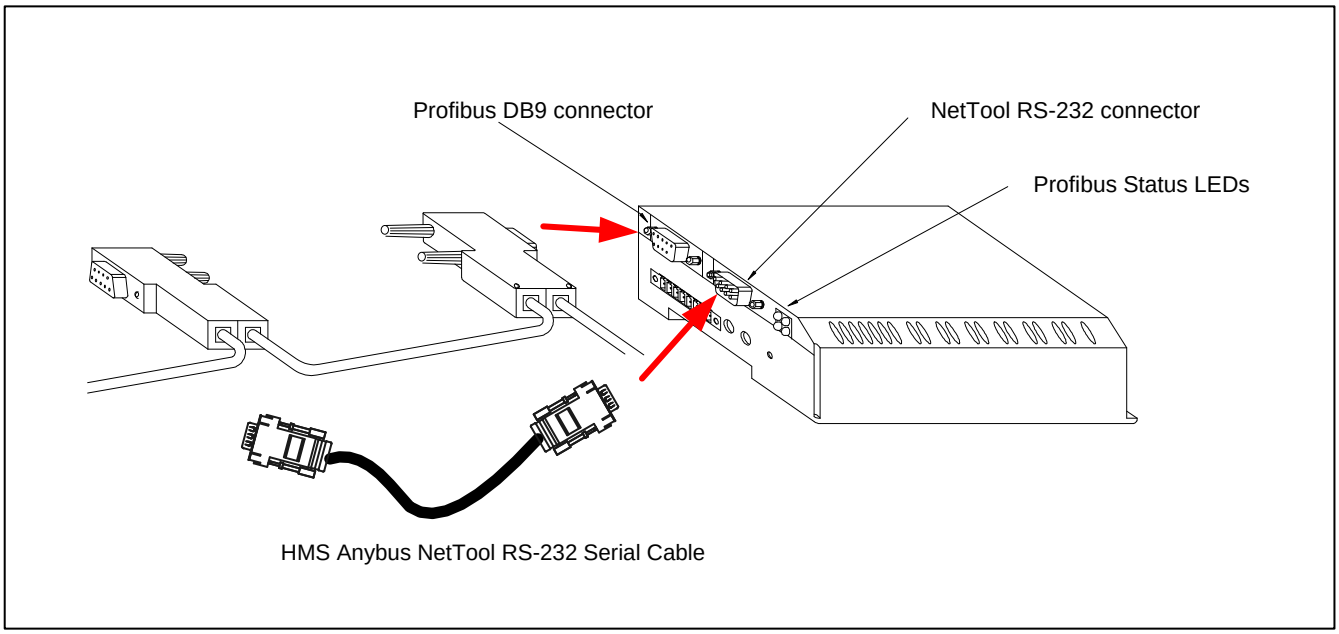
[*] A demo version of the tool is supplied which is limited to connecting up to 2 slaves

6 DEVICES TESTED

Device	Tested (FACTORY, SITE)
SST-5136-PFB-ISA	Factory
Anybus-S Profibus DP	Factory

7 CONNECTION CONFIGURATIONS

The FieldServer is connected to the Profibus network and NetTool as shown in the connection drawing below.



Profibus DB9 Connector Pinouts

Pin	Name	Description
Housing	Shield	Connected to PE
1	Not connected	-
2	Not connected	-
3	B-Line	Positive RxD/TxD according to RS-485 specification
4	RTS[1]	Request to Send
5	GND BUS[2]	Isolated GND from RS-485 side
6	+5V BUS[2]	Isolated +5V from RS-485 side
7	Not connected	-
8	A-Line	Negative RxD/TxD according to RS-485 specification
9	Not connected	-

Only A-line, B-line and Shield are used for most applications.

[1] Used in some equipment to determine the direction of transmission.
[2] Used for bus termination. Some devices, e.g. optical transceivers (RS-485 to fiber optics) require an external power supply from these pins.

Profibus NetTool connector Pinouts

PC Side DB9 Female	FieldServer Side DB9 Female
2	3
3	2
5	5

7.1 Connection Notes

Use the recommended network cable and terminators as specified by the Profibus network organization and/or the manufacturer of the network equipment.

Recommended cable is shielded copper cable.

8 COMMUNICATIONS FUNCTIONS - SUPPORTED FUNCTIONS AT A GLANCE:

8.1 Data Types Supported

FieldServer Data Type	Description (or Device Data Type)
2-byte Integer (Signed and Unsigned)	Buffer arranged as WORDS
8-bit Byte	Buffer arranged as BYTES
4-byte Float	Buffer arranged as FLOATS
Bit	Buffer arranged as BYTES

8.2 Data Operations supported

FieldServer as a Profibus Master
Read Output Buffer Data from Profibus DP Slaves (Max 244 bytes per Slave)
Write Input Buffer Data to Profibus DP Slaves (Max 244 bytes per Slave)

8.3 Limits

FieldServer as a Profibus Master
A maximum total of 1536 bytes can be transferred with all DP Slaves

8.4 Unsupported Functions and Data Types

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