## 1 DESCRIPTION

The FieldServer Profibus X30 DP Slave driver can be used to emulate a single slave station on a Profibus network. DP Masters can open a connection of up to 244 Bytes of Input and 244 Bytes of Output data, but not exceeding a combined total of 416 Bytes to the FieldServer. The FieldServer can be added to the Profibus network with the use of the supplied GSD file for the ANYBUS™ card. Connection to the Profibus network is via a DB9 port on the ANYBUS™ card.

| Fieldserver Mode | Nodes | Comments |
|---|---|---|
| Server | 1 | The FieldServer can only emulate one Profibus DP Slave station |

## 2 FORMAL DRIVER TYPE

Fieldbus
Server Only

## 3 COMPATIBILITY MATRIX

| FieldServer Model | Compatible with this driver |
|---|---|
| FS-x2010 | No |
| FS-x2011 | No |
| FSx25 | No |
| FS-x30 | No |
| FS-x40 | No |
| SlotServer | No |
| ProtoCessor | No |
| ProtoNode | No |
| FS-B3512 | Yes |

## 4 CONNECTION INFORMATION

| | |
|---|---|
| Connection type: | Proprietary |
| Baud Rates: | 9.6k, 19.2k, 93.75k, 187.5k, 500k, 1.5M, 3M, 6M, 12Mbit/s. Driver is auto-sensing. |
| Hardware interface: | Anybus-S Profibus DP |

## 5 PROPRIETARY PHYSICAL INTERFACES SUPPORTED

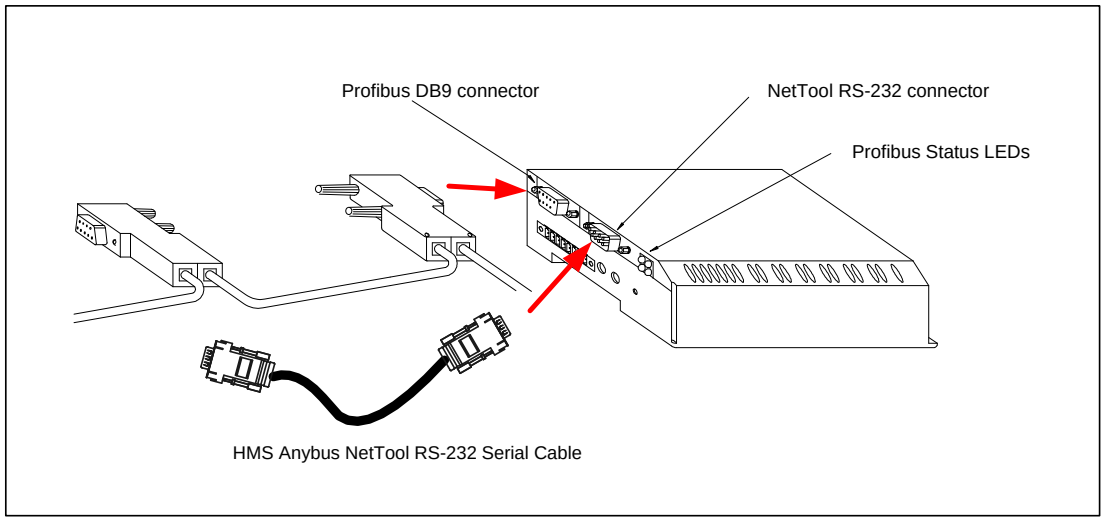
| Fieldserver Model | Adapter Model # | Vendor | Physical Medium |
|---|---|---|---|
| FS-B3512 | Anybus-S Profibus DP | HMS Networks | Twisted pair |

## 6 DEVICES TESTED

| Device | Tested (FACTORY, SITE) |
|---|---|
| SST-5136-PFB-ISA | FieldServer Technologies |

## 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 BUS2 | 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.

**Profibus NetTool connector Pinouts**

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

[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.

## 7.1 Connection Notes

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

# 9 DATA OPERATIONS SUPPORTED

| FieldServer as a Profibus Slave |
|---|
| Accept Output Buffer Data from a Profibus DP Master |
| Provide Input Buffer Data to a Profibus DP Master |

# 10 UNSUPPORTED FUNCTIONS AND DATA TYPES

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