

## FieldServer Driver - Fieldbus FS-8700-122 Profibus X30 DP Master Driver

### 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 3<sup>rd</sup> 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.

| Fieldserver Mode                        | Nodes | Comments   |
|---|-------|--|
| Client<br>DPV1 Master<br>(Class 1) only | 125   | The FieldServer can connect up to so many Profibus DP Slave devices. |

### Formal Driver Type

Fieldbus  
Client Only

### Compatibility Matrix

| FieldServer Model | Compatible with this driver |
|-------------------|-----------------------------|
| FS-x2010          | No                          |
| FS-x2011          | No                          |
| FS-x40            | No                          |
| FS-B3512          | Yes                         |

### 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  
**3<sup>rd</sup> Party Equipment:** HMS Anybus NetTool for Profibus\*

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

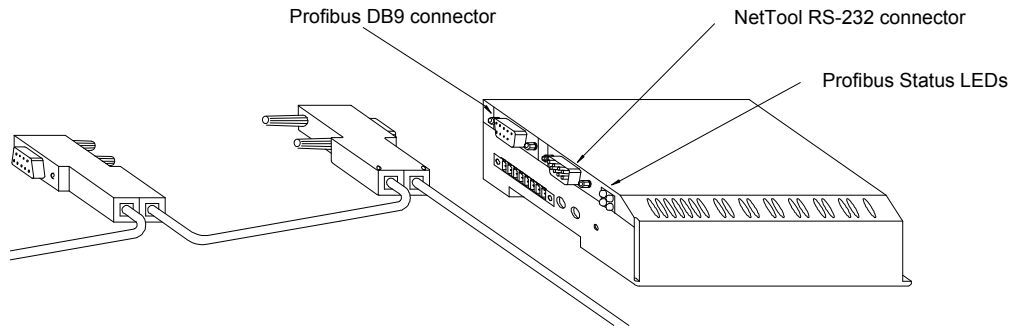
**Proprietary Physical Interfaces Supported**

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

**Devices tested**

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

## Connection configurations



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           | Request To Send*                                   |
| 5       | GND BUS       | Isolated GND from RS 485 side*                     |
| 6       | +5 V BUS      | Isolated +5 V from RS 485 side*                    |
| 7       | Not connected | -  |
| 8       | A-Line        | Negative RxD/TxD according to RS 485 specification |
| 9       | Not connected | -  |

\*+5 BUS and GND BUS are used for bus termination. Some devices, like optical transceivers (RS-485 to fiber optics) might require an external power supply from these pins. RTS is used in some equipment to determine the direction of transmission. In normal applications, only A-line; B-line and Shield are used.

## Connection Notes

Recommended cable is shielded copper cable.

**Communications functions - Supported functions at a glance:**

**Data Types Supported**

| <b>FieldServer Data Type</b>           | <b>Description (or Device Data Type)</b> |
|--|--|
| 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                 |

**Data Operations supported**

| <b>FieldServer as a Profibus Master</b>                                     |  |
|---|--|
| 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 )   |  |

**Limits**

| <b>FieldServer as a Profibus Master</b>                             |
|---|
| A maximum total of 1536 bytes can be transferred with all DP Slaves |

**Unsupported Functions and Data Types**

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

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