



## FieldServer Driver - Serial FS-8700-55 Zellweger MDA System

**Driver Code:** S16  
**Version:** 1.00

**Devices Supported:** MDA System 16 Toxic Gas Monitor  
**Physical Interface:** EIA-485

**Command/SubCommand Supported:**

*The protocol specifies the MDA SYSTEM 16 instrument (device) as network master, which sends various data report commands to the FieldServer as remote node 0x49.*

- Most of the commands report configuration data. Command 0x30 causes the FieldServer to store ten UInt16s, among them gas concentration, from one of the 16 points.
- Select serial mode by setting 'remote devices y/n' to yes and 'bidirectional y/n' to yes.
- Select transmit only mode by setting 'remote devices y/n' to yes and 'bidirectional y/n' to no.
- In serial mode the device expects an ACK/NAK response. The FieldServer always responds.
- Monitor communications on system stat channel rx, or from the device.
- Recommend baud 9600 of the available 2400, 4800, 9600 8N1.
- Connect to J-15 NETWORK INTERFACE DB-25 on the back, where RS-422 pins 7=GND, 14=Tx-, 15=Tx+, 16=Rx-, and 17=Rx+.
- All packets bytes 0x49, length of entire packet in bytes, command, command-specific byte, etc., checksum, where sum of all bytes is 0.
- The 0x30 (Sequential Sample Result) packet is 0x49, 0x2a, 0x30, 2 byte date, 2 byte time, 1 byte point#, 1 byte analyzer#, 1 byte MDA gas#, 1 byte format code, 2 byte concentration, 1 byte current loop drive, 1 byte alarm flag, (repeat from 0x30 twice), checksum.
- Maps are 'server node 73 addr 0 len 320' or 'wrp node 73 addr 0 len 320'
- MDA gas#, format code, concentration, current loop drive, alarm flag, and a driver generated boolean consensus vote. For each attribute, sixteen data array locations are set aside for the 16 points. E.g. A1 concentration at 0x60, A1 alarm flag at 0x80

**Object Types/Attributes Supported**

<u>Datatype</u>	<u>Attribute</u>
Analog Output	Date
	Time
	Point #
	Analyzer #
	MDA gas#
	Format code
	Concentration
	Current Loop Drive
	Alarm Flag
	Consensus Vote