Protocol Driver





A Sierra Monitor Company

FieldServer Driver FS-8700-55 Zellweger MDA 16

Driver Code: S16 Version: 1.00

Devices Supported: MDA System 16 Toxic Gas Monitor Interface: RS-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 'wrb node 73 addr 0 len 320'
- MDA gas#, format code, concentration, current loop drve, alarm flag, and a driver generated boolean concensus 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

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