FS-8705-11 FA403 Serial' Protocol

DATASHEET – Rev 1

DESCRIPTION

The FA403 by the 'Steam & Condensate Group' of Armstrong International Inc. is designed to monitor the status of wireless connected remote steam trap monitoring devices. The FA403 is equipped with a serial port and it sends status info over this port.

This driver is intended to monitor the steam trap status of multiple devices connected to a FA403.

The following brief notes describe the driver capability

- The driver processes 'Transmitter Status' Messages and ignore all others
- The driver is a passive client – listening passively for messages from the FA403.
- The driver stores the date and time of the last message that was received. This data can be served to a remote client using another protocol.
- The driver stores the status and the id info of the last message that was received. This data can be served to a remote client using another protocol.
- Each time a Transmitter Status message is received the driver validates the message. If valid the driver extracts the System ID and the Transmitter ID. These are used to build an index into a Data Array where the status information will be stored. Thus each system_id / transmitter_id combination can have its status stored at a unique location in a data array. Depending on how the server (say Modbus) is configured, it will be possible to allocate a unique address to each devices' status. For example status of 1,1 could be associated with register 40001, of 1,2 with 40002 etc.
- The driver can be configured to accept / ignore messages containing status information for specific system_id / transmitter_id combinations for a range of combinations.
- The driver expects messages to be sent in hex format from the FA403

CONNECTION FACTS

This table summarizes the number of connections this driver supports for each of its modes.

FIELDSERVER MODE	NODES	COMMENTS
Passive Client	1	Messages do not contain destination and source node addresses. Therefore only one FA403 Serial Receiver can be connected to each port.

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FORMAL DRIVER TYPE
Serial
Passive Client

COMPATIBILITY

FIELDSERVER MODEL	COMPATIBLE
FS-x2010	Yes
FS-x2011	Yes
FS-x40	Yes
FS-X30	Yes

CONNECTION INFORMATION

Connection Type:	EIA485
Baud Rates:	Driver Supports: 110; 300; 600; 1200; 2400; 4800; **9600**; 19200; 28800; 38400; 57600; 115200 Baud
	FA403 Serial Receiver supports: 9600
Data Bits:	Driver Supports: 7,**8**
	FA403 Serial Receiver supports: 8
Stop Bits:	Driver Supports: **1**,2
	FA403 Serial Receiver supports: 1
Parity:	Driver Supports: Odd, Even, **None**
	FA403 Serial Receiver supports: None
Hardware Interface:	N/A
Multidrop Capability:	No

DEVICES TESTED
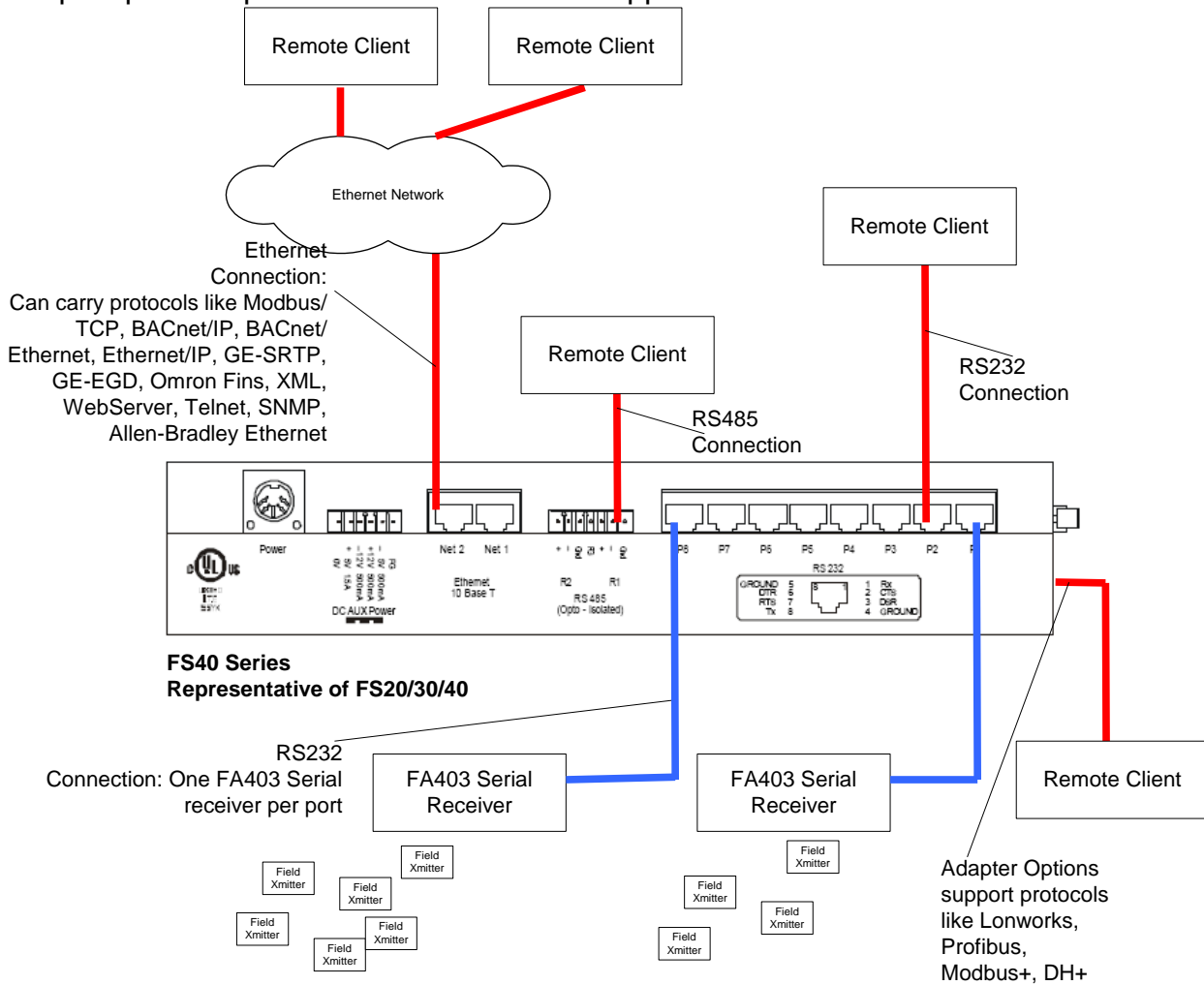
DEVICE	TESTED (FACTORY, SITE)
FA403 Serial Receiver	Customer Site

CONNECTION CONFIGURATIONS

FS40 shown as representing FS20, FS30 and FS40
Multiple FA403 Systems can be connected. One per port.
Multiple upstream protocols and connection supported. See list of FieldServer Drivers

COMMUNICATION FUNCTIONS

The driver only processes messages sent in Hex mode.
All message beside Status Messages is ignored.
The driver does not send any messages in response.

CUSTOMER SUPPORT

FA403 Driver for FieldServer was developed by Chipkin, and we are proud to provide support for our products. For technical support, sales and customer service, please call us at 1 (866) 383-1657.

Thanks for choosing Chipkin's products and integration services to meet your building and industrial automation requirements!

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Sales and Customer Service

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REVISION HISTORY

DATE	RESP.	DRIVER VERSION	DOCUMENT REVISION	COMMENTS
3 Apr 2006	PMC	0.00	0	Created
1 May 2006	PMC	1.00	0	Updated Connection Diagram and description.
7 Jun 2021	YC	1.00	1	Updated to latest template