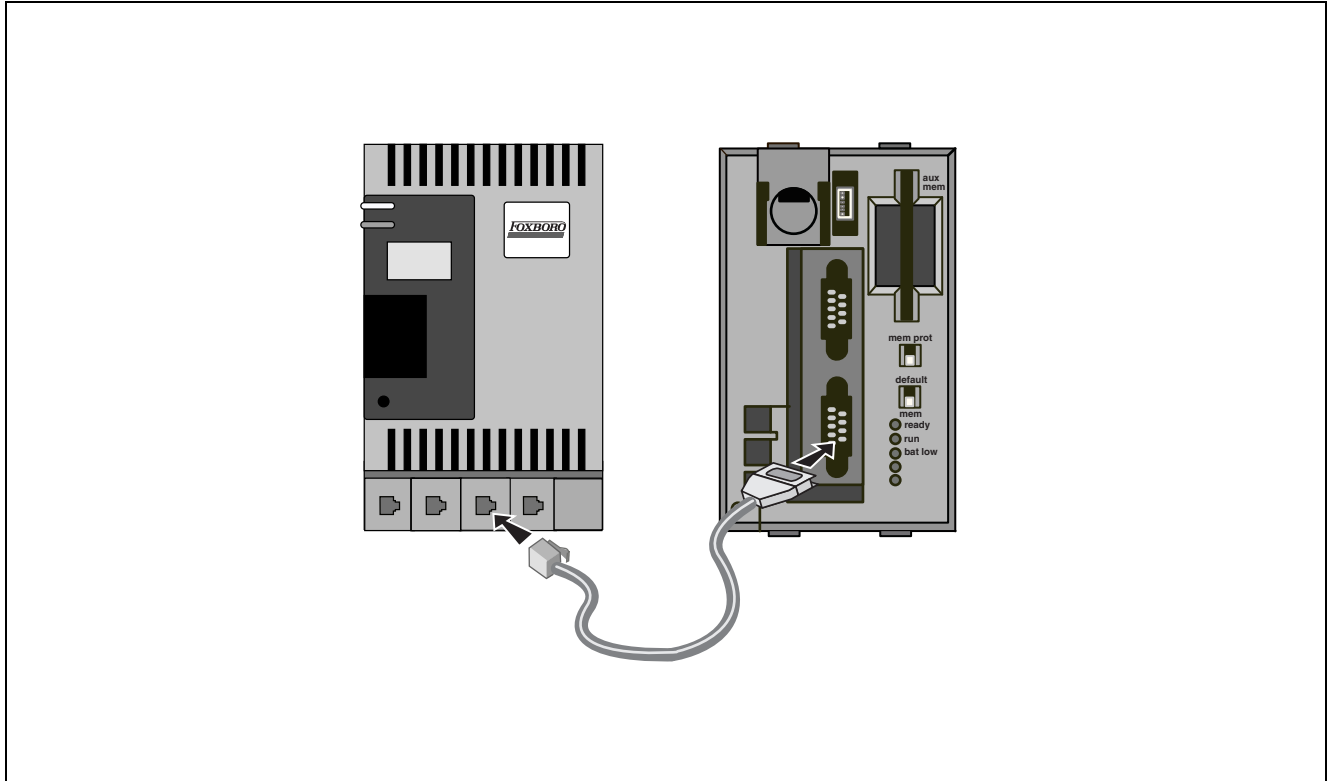


I/A Series® Hardware

Field Automation Subsystem

Micro-I/A™ Station Modbus Interface



DESCRIPTION

The Micro-I/A station Modbus™ Interface incorporates a serial connection between a Micro-I/A Type 1 station and one or more Modbus programmable logic controller (PLC™) modules. A Type 1 station processor card provides a serial interface with two communications ports. Up to two independent Modbus module strings may be controlled from this interface. No PCMCIA cards or slots are utilized.

Recognized world-wide as a leading fieldbus for factory automation and control, the Modbus specification is defined by the Modicon™ division of AEG Schneider Automation, Inc. Additionally, several other vendors provide Modbus compliant hardware.

COMMUNICATION

Field communications between a Micro-I/A station and Modbus modules are implemented by RS-232-C transmission technology. Baud rate options (in bps) are as follows:

- 300
- 600
- 1200
- 2400
- 4800
- 9600
- 19200.

Modbus compliant slave devices are supported.

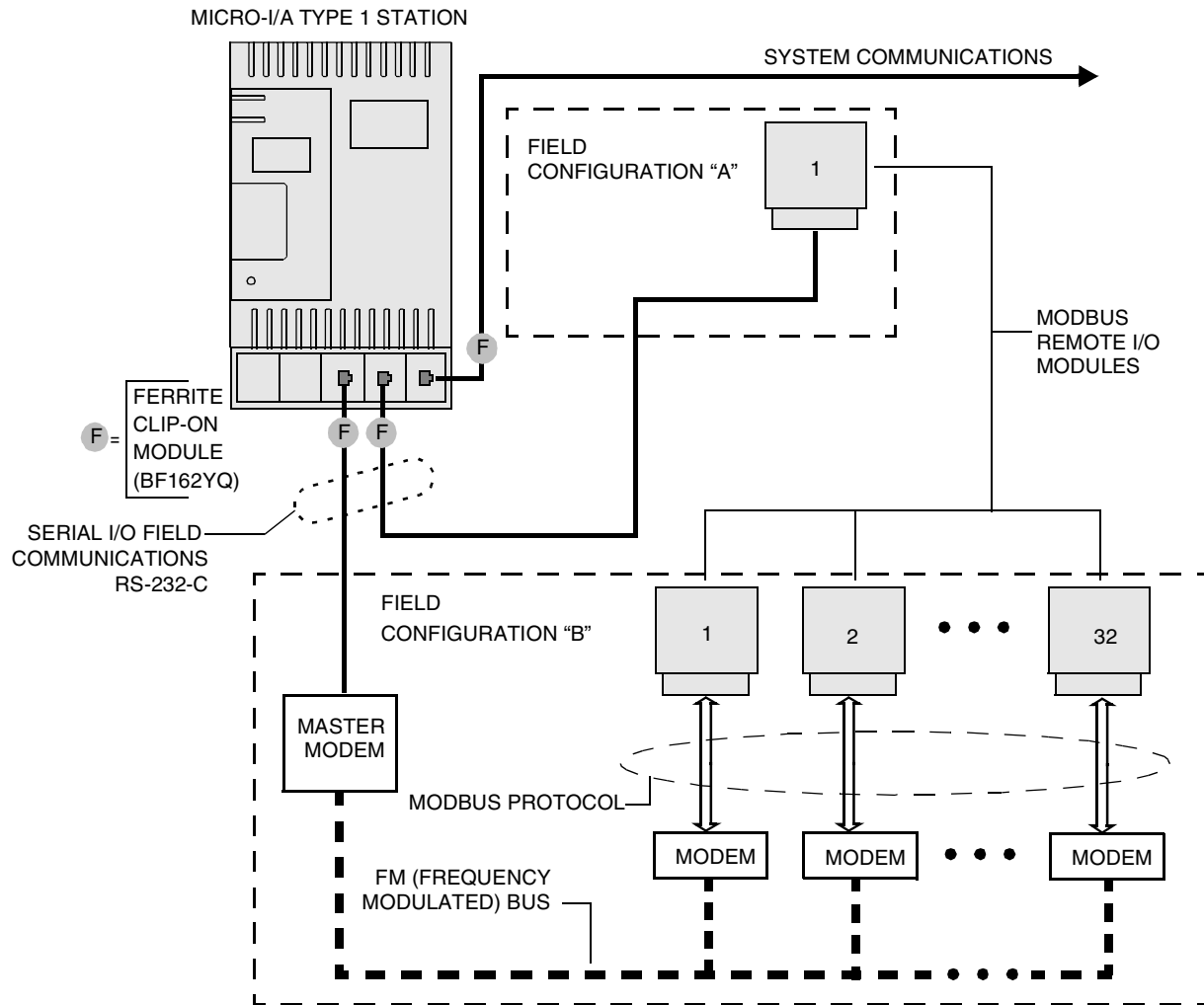
Modbus compliant modules from independent vendors also may be employed.

MULTIPLE PLATFORM SUPPORT

One Micro-I/A station can be configured to service a combination of I/O families simultaneously. This feature is a function of the number of available PCMCIA slots and available serial I/O ports in the station.

In conjunction with the Modbus platform, one or more of the following I/O families can be supported concurrently:

- I/A Series IEEE 1118 Fieldbus
- Allen-Bradley™ Remote I/O
- GE™ Fanuc™ Direct Connect I/O
- PROFIBUS-DP™ I/O
- Allen-Bradley PLC5/E™ Ethernet.



NOTES

1. FIELD CONFIGURATION "A" IS AN EXAMPLE OF A DIRECT CONNECT IMPLEMENTATION; IT DOES NOT REQUIRE A MODEM. ONLY ONE PLC DEVICE CAN BE ACCESSED.
2. FIELD CONFIGURATION "B" IS AN EXAMPLE OF A MULTIDROP IMPLEMENTATION; MODICON J478/J878 MODEMS ARE REQUIRED. UP TO 32 PLC DEVICES CAN BE SUPPORTED.

Figure 1. Configuration for Modbus Platform with Two Connection Methods

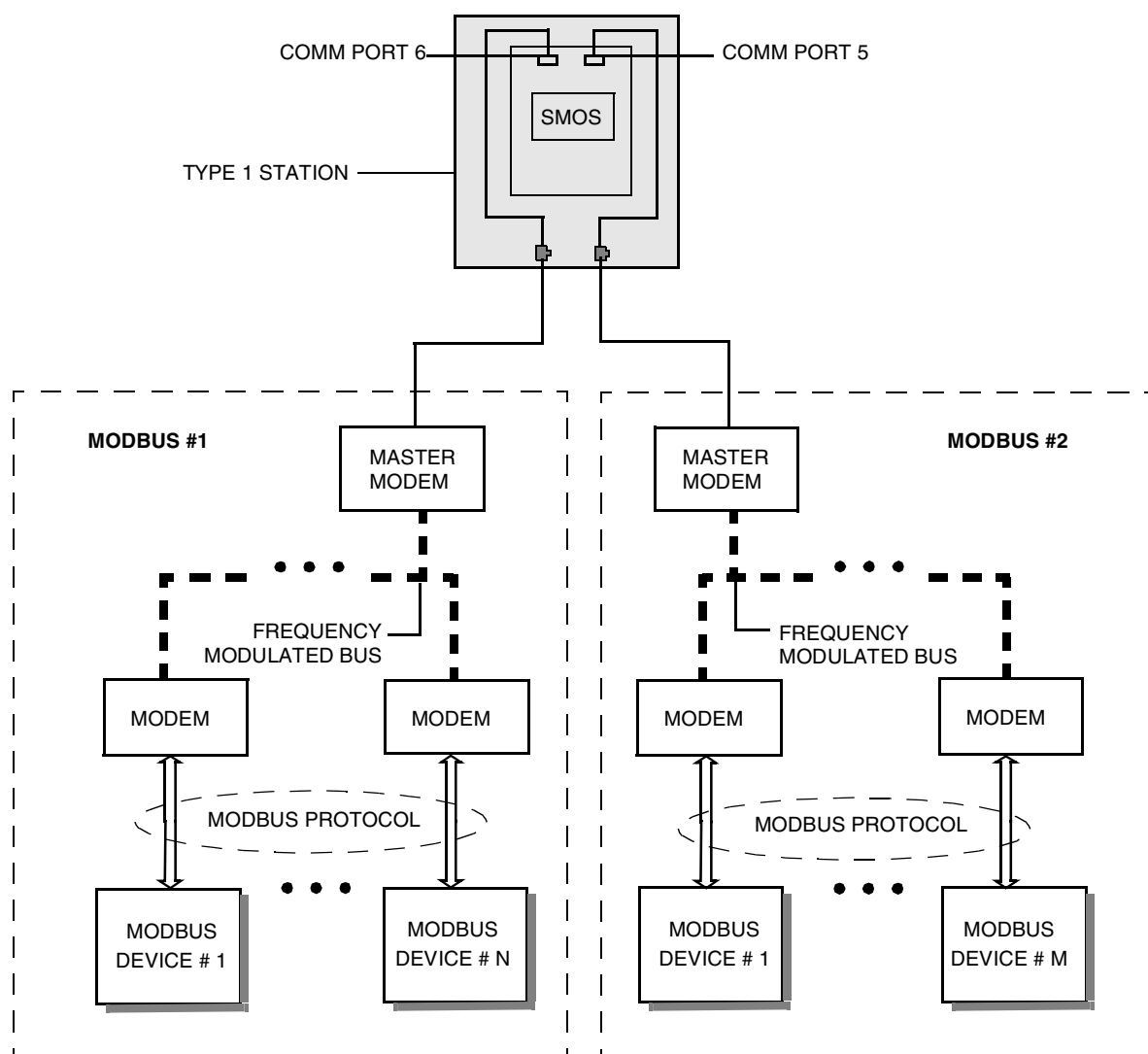


Figure 2. Example of Dual Multidrop Configuration for Micro-I/A Type 1 Station and Modbus PLC Modules

FUNCTIONAL SPECIFICATIONS

Serial Interface, Type 1 Station

NUMBER OF COMMUNICATIONS PORTS

2

TRANSMISSION TECHNOLOGY

RS-232-C

TRANSMISSION PROTOCOL

RTU

Modbus Interface

NUMBER OF MODBUS COMPLIANT SLAVE MODULES

Direct Connect

1 Maximum

Multidrop Configuration

32 Maximum

Modbus Interface (Cont.)

BUS SPEED OPTIONS, BAUD RATE IN BPS

300

600

1200

2400

4800

9600

19200

Support Equipment

REQUIRED MODEMS

Modicon J478/J878

COMMUNICATION CABLE FILTERS

Ferrite clip-on modules (BF162YQ)

33 Commercial Street
Foxboro, Massachusetts 02035-2099
United States of America
www.foxboro.com
Inside U.S.: 1-888-FOXBORO (1-888-369-2676)
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