

Protocol Definition - AB DF-1 Half Duplex

Connector Screen Options

RTS ON DelayX10ms

Enter a number from 0 to 255 (0 to 2.55 seconds) to delay sending a message after turning on Request To Send (RTS). Commonly used with modem communication to allow additional time for the modems to synchronize.

RTS OFF DelayX10ms

Enter a number from 0 to 255 (0 to 2.55 seconds) to keep RTS on after a message has been sent. Commonly used to keep a radio on for a short period of time at the end of a message.

Handshake Option

If Full Handshake is selected the Omnii-Comm will assert RTS and wait for CTS before sending a message. RTS will be turned off after the message has been sent. If Constant Carrier is selected the Omnii-Comm will assert RTS when it sends its first message and leave it asserted. It will wait for CTS before sending. If Ignore CTS is selected, RTS will be asserted before sending a message and removed at the end of the message. The CTS input will be ignored. If No Handshake is selected, RTS will be asserted when the Omnii-Comm sends its first message. RTS will not be turned off at the end of the message. The CTS input will be ignored. If Activity Monitor is selected, the Omnii-Comm will check the DCD input before sending a message. If DCD is ON, the Omnii-Comm will delay sending the message.

Retry Count

The number of times a message will be retried before an error is reported

Max ENQs if Master

DF-1 Half-Duplex response messages are returned when the Master sends an ENQ message. If the Slave does not return a response the Master can optionally send another ENQ message. This field limits the number of ENQ messages that will be sent.

Option Bit Parameters

Master/Slave

Check this box if the port is to be used as a DF-1 Half Duplex Master. Uncheck it for DF-1 Half Duplex Slave operation.

Use Radio Key

If checked, Bit 0 in a register specified by the "Radio Key Address" on the Header configuration screen will be turned ON before a message is sent and turned OFF after the message has been completed.

Error Check BCC/CRC

Selects between two error checking options in DF-1 Communication. This selection must match on all devices connected to this port. Check this option box for BCC error check. Clear this option for CRC error check.

Protocol Extension Table Parameters

Not used for Allen-Bradley DF-1 Half Duplex protocol

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Poll Table Read Parameters

PLC Type

Select the type of PLC that will be used for the Read operation. Choices are PLC 2, PLC 5, PLC 5/250 or SLC 500

Station Address

Enter the Station Address in decimal for the Read operation.

Command

Select the type of read operation. The choices are PLC 2 Read, PLC 5 Read and SLC 500 Read.

PLC DH+ Address

Enter the Data Highway address of the PLC that will be used for the Read operation.

LP (5/250 only)

Enter the Logical Processor number for the PLC. This field is only used with the PLC 5/250.

File Type

Enter the File Type for the Read operation. The choices are PLC 2, PLC 5 Bit, PLC 5 Integer, PLC 5 Floating Point, PLC 5 Status, SLC 500 Bit, SLC 500 Integer, SLC 500 Floating Point or SLC 500 Status.

File Number

Enter the File Number for the Read operation

Starting Element

Enter the first word to read

Bytes Expected

Enter the total number of bytes expected from the Read operation.

Poll Table Write and Error Parameters

PLC Type

Select the type of PLC that will be used for the Write operation. Choices are PLC 2, PLC 5, PLC 5/250 or SLC 500

Station Address

Enter the Station Address in decimal for the Write operation.

Command

Select the type of Write operation. The choices are PLC 2 Write, PLC 5 Write and SLC 500 Write.

PLC DH+ Address

Enter the Data Highway address of the PLC that will be used for the Write operation.

LP (5/250 only)

Enter the Logical Processor number for the PLC. This field is only used with the PLC 5/250.

File Type

Enter the File Type for the Write operation. The choices are PLC 2, PLC 5 Bit, PLC 5 Integer, PLC 5 Floating Point, SLC 500 Bit, SLC 500 Integer or SLC 500 Floating Point.

File Number

Enter the File Number for the Write operation

Starting Element

Enter the first word to Write

Bytes to Write

Enter the total number of bytes to Write.

Note: System Error Protocol Definitions are the same as Poll Table Write and Error Parameters

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Database Extension Table Parameters

Index	Name	Size:Max Elements
0	N7:0-249	2:256
1	N7:250-499	2:256
2	N7:500-749	2:256
3	N9:0-255	2:256
4	N10:0-255	2:256
5	F8:0-127	4:128
6	N7:750-999	2:256
7	N11:0-32	2:32
8	N12:0-32	2:32
9	N13:0-32	2:32
10	N14:0-63	2:64
11	N15:0-32	2:32
12	N16:0-32	2:32
13	N17:0-32	2:32
14	N18:0-32	2:32
15	N19:0-32	2:32
16	N20:0-32	2:32
17	N21:0-32	2:32
18	N22:0-32	2:32
19	N23:0-32	2:32
20	N24:0-255	2:256
21	N25:0-255	2:256