Dynalco TM5000 serial communication protocol

Connector Configuration Parameters

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.

Option Bit Parameters

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.

Protocol Extension Table Parameters

The Protocol extension table is used to define additional parameters required for Dynalco TM5000 operation. Click on the box to enable the Protocol Extension Table. Click on the button to bring up the specific options as detailed below.

Command Flags Data Type and Offset

The first two entries specify the Data Type and starting offset for the Command trigger bits. A command will be sent when a trigger bit goes from OFF to ON. The TM5000 protocol supports 6 commands.

Bit	Function
0	Reset Alarms (R)
1	Inhibit Alarms (I)
2	Enable Alarms (E)
3	Start Delay Timer (D)
4	Set Delay Timer (N T=nnnn)
5	Set Setpoint (N Snn=nnnn)

Command Data Data Type and Offset

These entries specify the Data Type and starting Offset that will be used to store Command Data. The TM5000 protocol requires three words of Command Data.

Word	Function
0	Node Number
1	Setpoint Number (For N_S= command)
2	Setpoint/Timer value (For N_X=command)

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Poll Table Read Parameters

Node Number

Enter the Node number (1-99) of the unit to Read from.

Command

Select the type of data to read. Choices are Setpoints, 1st Out Alarms, Values and Setpoints, Values Only, 1 Channel Read and Delay Timers

Store Diff. If NE

Set to 1 to store differentials for Rd Values Only or 1 Channel Reads

Channel # (V & K only)

Enter Channel Number to read for 1 Channel Read or Starting Channel

Channel Count

Enter the number of channels to read

bytes expected

Enter the total number of bytes expected in the Read operation

Poll Table Write and Error Parameters

Direct Write COMMANDS are not supported. Send COMMANDS by setting CONTROL ENABLE bits in the CMD Flags Data Type.

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

Database Extension Table Parameters

Index	Name	Size:Max Length
1	Current Value	2:256
2	Differential	2:256
4	Setpoints	2:256