

# Sullair Supervisor II 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.

### Retry Count

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

## 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.

### Metric

Check this box if the Supervisor II is configured to transmit data in metric units.

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## Protocol Extension Table Parameters

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

### CMD Flag Data Type and Offset

The first two entries are used to specify the Data Type and Starting Offset that will be used to store the Command Flags. Command Flags are used to initiate the sending of a message to the compressor. Messages are sent when a Command Flag transitions from OFF to ON. The Omnii-Comm uses two adjacent words for Command Flags. The low byte in each word is used for the Command Flags. The corresponding bits in the upper byte are used to provide a Command Complete Status. The Omnii-Comm supports 11 Sullair Supervisor II commands.

Word	Bit	Function
0	0	S Stop
0	1	U Unload
0	2	L Load (Modulate)
0	3	F Full Load
0	4	T Trim
0	5	E Emergency Stop
0	6	A Auto Run Mode
0	7	C Continuous Run Mode
1	0	G Get Parameter
1	1	P Change Parameter
1	2	D Display Message

### CMD Data Data Type and Offset

The next two entries are used to specify the Data Type and Starting Offset that will be used to store Command Data. Command Data is used to make up the command message that will be sent when the Command Flag changes state. The Omnii-Comm uses 3 words of Command Data.

Word	Function
0	Address of target compressor (all commands)
1	Parameter Number (G and P commands)
2	Parameter value (P command)

### Return Data Data Type and Offset

The next two entries are used to specify the Data Type and Starting Offset that will be used to store the Return Data. Return Data is information returned from the compressor when it receives a command. You should define 8 words of Return Data. Data returned is placed in the order received into this data area. Strings returned by the "D" command are packed 2 bytes/register. Other commands return (capacity), (P2), (run hours), (run status), (mode) will be placed in the first 5 words of Return Data.

### Net Data Data Type and Offset

The final two entries are used to specify the Data Type and Starting Offset that will be used to store Net Status Messages. Data from Compressor 1 goes to the first 5 registers, Compressor 2 to the next 5 registers and so on. There must be 5 registers allocated for each compressor that is on the network. The values that will be stored are the same as in Return Data; (capacity), (P2), (run hours), (run status), (mode)

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## Poll Table Read Parameters

### Compressor #

The number of the compressor that will respond to this read request.

### Command

The type of read to be performed. There are two types of read polls, Quick Status and Complete Status. Quick Status returns 10 bytes of data and Complete Status returns 36 bytes of data.

### # Bytes to Read

Enter 10 or 36 depending on the command.

## Poll Table Write and Error Parameters

INVALID SELECTION. Can not Write to Sullair from the Poll Table. Use Commands to send data to the Sullair.

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

## Database Extension Table Parameters

Index	Name	Size
0	INVALID SELECTION	