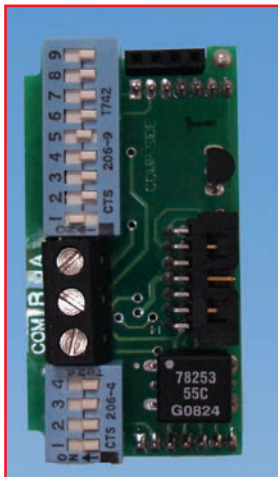


# ModBus



The ModBus option module has been specifically designed for use with the DHC positioner via plug and socket installation. This module provides an isolated RS-485 bus connection using the ModBus protocol. The on-board screw terminal strip provides easy connection to the bus [Terminals A, B, & Common]. With an input impedance of 96K ohms, up to 256 units can be connected on the bus. On-board dip switches allow configuring the module for various bus settings: mode, baud rate, parity, node address, and line terminating resistor.

## Standard Features

- ModBus option module plugs directly into DHC-100 positioner card
- Selectable RTU or ASCII mode
- Selectable Even Parity or No Parity
- Selectable Baud Rate: 9600, 19.2K, 57.6K, 115.2K
- Node Address Setting: 0 - 255
- Selectable line terminating resistor

## Specification

### BUS CONNECTION

Type: ANSI TIA/EIA RS-485 (electrically isolated up to 1500 Vrms)

Protocol:

ModBus (selectable RTU or ASCII mode)

Logic "1": +Vba

Logic "0": -Vba

Selectable Address: 0 - 255 (1 to 247 usable)

Selectable Line Terminating Resistor (Rba): 150 ohm

Line Polarization: not required

### CABLE CHARACTERISTIC IMPEDANCE

A value of 100 ohms or greater may be preferred, especially for 19.2K and higher baud rates.

### TRANSMITTER OUTPUT

Differential Output Voltage (Vba):

5V max @ no load

1.5V min @ 54 ohm load

Output Short Circuit Current:

A to B: 95 mA typical

A or B to COM: 113mA typical

### TRANSMITTER INPUT

Input Impedance (Rba): 96K ohms min (1/8 node)

Input Logic Threshold Voltage (Vba): 30mV min, 200 mV max

Input Hysteresis: 20mV typical

### ENVIRONMENTAL

Operating Temperature Range: 0° C to 60° C

Storage Temperature Range: -40° C to 85° C

Relative Humidity Range: 0 to 90 percent (noncondensing)

BAUD RATE	RTU MODE CHARACTER PERIODS	
	11.5 (usec)	13. (usec)
9600	1,719	4,010
19.2	859	2,006
57.6K	266	668
115.2K	143	334

## Wiring Diagram

