

The MCS-DS-INTERFACE Specifications & Description

Controller Specifications

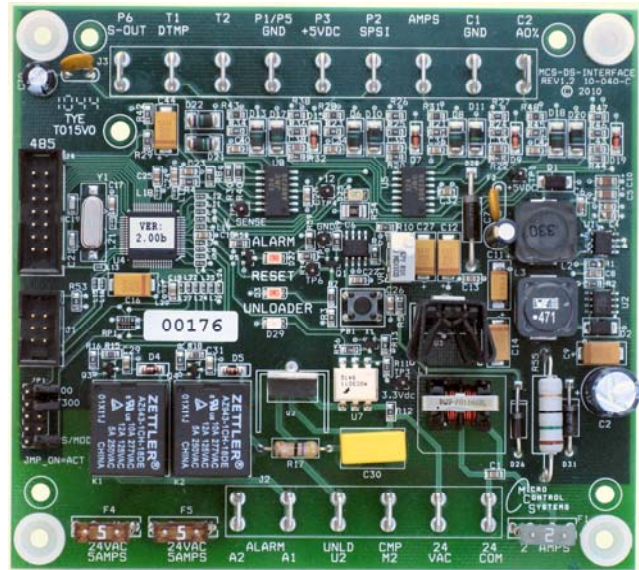
Dimensions.....	5.00"w, 4.50"d, 2.25"h
Mounting Holes	4 holes using #6 screws through nylon collars at corners of board
Cover.....	Lexan with standoffs
Operating Temperature.....	-40°F to +185°F (-40°C to +85°C)
Storage Temperature	-40°F to +185°F (-40°C to +85°C)
Microprocessor.....	Microchip 16-bit PIC processor
Relay Outputs.....	<ul style="list-style-type: none"> • 24vac Compressor Relay output fused at 5 amps • Alarm Relay output with common & normally open contacts, fused at 5 amps • 24vac Triac Unloader output
Sensor Inputs	<ul style="list-style-type: none"> • Suction PSI input 0-5vdc • Discharge Temp input 0-5vdc • Amp input 0-5vdc
Analog Output	0-5vdc Average Suction PSI
Analog Inputs	Load signal input 0-5vdc
Printed Circuit Board	Four layer PCB with separate power and ground planes
Input Power (Standard).....	24vac ±10% 50/60Hz @ 77°F (25°C)
Brownout Circuit.....	Automatic with RESET status LED
Information LED's.....	<ul style="list-style-type: none"> Green = Power on Yellow = Compressor unloaded Red = Blinking alarm code
Power Requirements.....	2 amps @ 24vac

Product Description

The MCS-DS-INTERFACE board is a substitute for the Copeland Scroll Digital™ Compressor Controller. The timing specifications are as specified by Copeland. The discharge temperature sensor can be a MCS-T100 temperature sensor or a Copeland discharge temperature sensor (Field selectable).

The printed circuit board is a four layer board with a separate power and ground plane to provide the ultimate in electrical noise suppression. All inputs are installed with chokes to provide further noise protection from the outside world. The Compressor Relay output is protected with a capacitor-resistor snubber network along with a 5 amp fuse. The system printed circuit board is protected from sensor shorts by an auto resetting polyfuse.

MCS-DS-INTERFACE



MCS-DS-COMM (Optional)

MODBUS or MCS-CONNECT communications interface board. Keyed mounting with nylon bolt to MCS-DS-INTERFACE.



There is an optional MCS-DS-COMM interface board that allows the user to communicate via Modbus or MCS-CONNECT. This interface has two rotary address selection switches allowing addressing from 0 to 99, thus supporting up to 100 units.

MCS has a color touch screen color graphics system allowing easy monitoring of the compressor's performance. With the ability to provide unique addressing of up to 100 units, they can be wired through the RS-485 communications port on the MCS-DS-COMM board using Modbus or MCS-CONNECT.

The MCS-DS-INTERFACE controller accepts a 1.45 to 5.00vdc signal to provide 10% to 100% capacity output from a Copeland Scroll Digital™ compressor.