

## **28.1            140 XSM 010 00: Two Channels In / One Channel Out Analog Simulator**

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### **Purpose**

This section provides information on the 140 XSM 010 00 analog simulator.

### **What's in this Section?**

This section contains the following topics:

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## Presentation

### Function

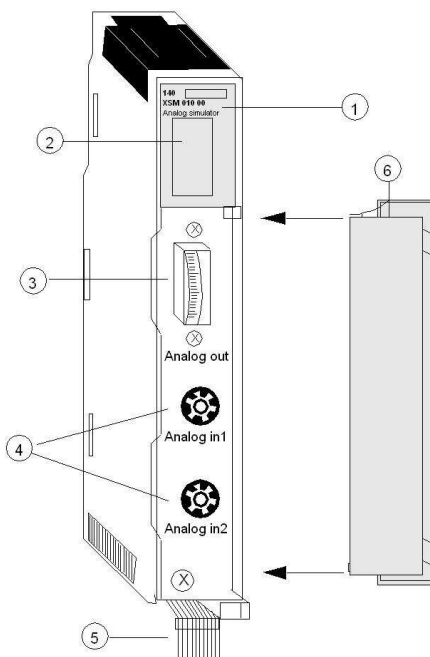
The 140 XSM 010 00 module simulates 4 ... 20 mA field current loops. It provides two adjustable 4 ... 20 mA analog signals and one fixed 24 VDC output. The simulator also measures and displays voltages from 0 ... 5 VDC.

The simulator module includes the following:

- An internal 24 VDC power supply
- A 0 ... 5 VDC meter
- Two 10-turn potentiometers

**NOTE:** The 140 XSM 010 00 is not a field-operational module. It should be used only for testing, simulating and calibrating Quantum current input modules.

### Illustration



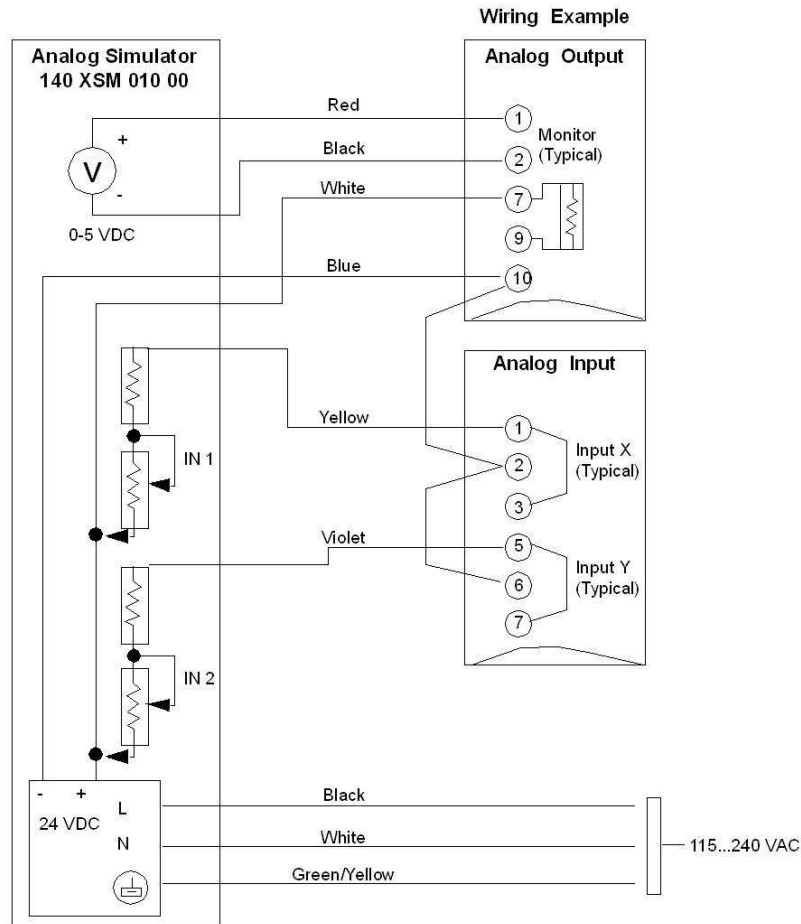
- 1 Model number, module description, color code
- 2 LED display
- 3 Voltmeter
- 4 Potentiometers
- 5 Color-coded leads
- 6 Removable door

**NOTE:** The 140 XSM 010 00 can be placed in any slot in the Quantum.

## 140 XSM 010 00 Wiring Diagram

### Sample Wiring Diagram

The following diagram shows a typical connection between the simulator, a 140 ACI 030 00 input module and a 140 ACO 020 00 output module. The simulator provides a variable 4 ... 20 mA input to the input module. The input can then be read by a Quantum CPU, and, if required, sent to an output module. For the output module to operate properly, the main current loop must be active, with 24 VDC supplied between terminals 9 and 10 with a 249 Ω voltage drop resistor.



140 XSM 010 00 Generic Wiring Diagram for the 140 A•I 030 00 Input Modules, 140 A•O 020 00 Output Modules, and the 140 AMM 090 00 Input/Output Module

**NOTE:** For a more detailed description of these modules, refer to the Discrete and Analog I/O Reference Manual Quantum I/O Analog IN Modules (see *Quantum with Unity Pro, Discrete and Analog I/O, Reference Manual*), Quantum I/O Analog OUT Modules (see *Quantum with Unity Pro, Discrete and Analog I/O, Reference Manual*) and Quantum I/O Analog IN / OUT Modules (see *Quantum with Unity Pro, Discrete and Analog I/O, Reference Manual*).

## 140 XSM 010 00 Specifications

### Specifications

Voltage	Operating	100 ... 240 VAC, 50/60 Hz
	Continuous output	24 VDC, 400 mA max
Operating current		300 mA @ 120 VAC
Voltmeter range		0 ... 5 VDC
10-turn potentiometer output	variable current	4 ... 20 mA
	variable voltage	1 ... 5 VDC
Internal fusing		None
Bus current required		None