



# Series 5

## Discrete AC/DC Input

### Local CM (CM-2-102)

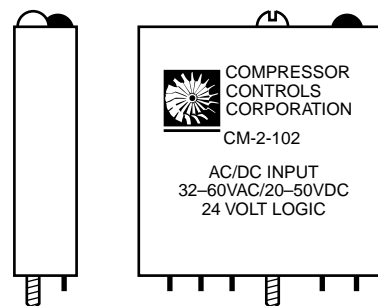
This document specifies the CM-2-102 isolated Discrete Input (DI) Conditioning Module (CM). The CM accepts an ac or dc input voltage and can be used for integrity monitoring, see *External Integrity Monitoring* [TN59].

Refer to the following data sheets for additional information.

- *Vanguard Control System Hardware Specifications* [DS5001]
- *Vanguard Environmental Specifications* [DS5002]
- *Reliant Control System Hardware Specifications* [DS5051]
- *Reliant Environmental Specifications* [DS5052]

*Table 1 CM-2-102 Specifications*

<b>Part Number</b>	CM-2-102
<b>Nominal Operating Range</b>	0 to 24 Vac/dc nom (non-polarized)
<b>Input Current</b>	14 mA max
<b>Neutral Zone</b>	Pick up voltage: 20 Vac/dc Drop out voltage: 12 Vdc; 10 Vac
<b>Input Resistance</b>	4.68 k $\Omega$
<b>Output Current</b>	Open collector
<b>Logic Voltage</b>	18 to 30 Vdc
<b>Logic Current</b>	10 mA max
<b>Certified Safety Limit</b>	Common Mode: 240 Vrms
<b>Destructive Limit</b>	Common Mode: 1500 Vrms
	Differential: 50 Vdc/60 Vac (non-polarized)
<b>Dimensions</b>	2.2" high x 0.46" wide x 1.9" deep (5.6 x 1.2 x 4.8 cm)



*Figure 1 CM-2-102 Discrete Input Module*

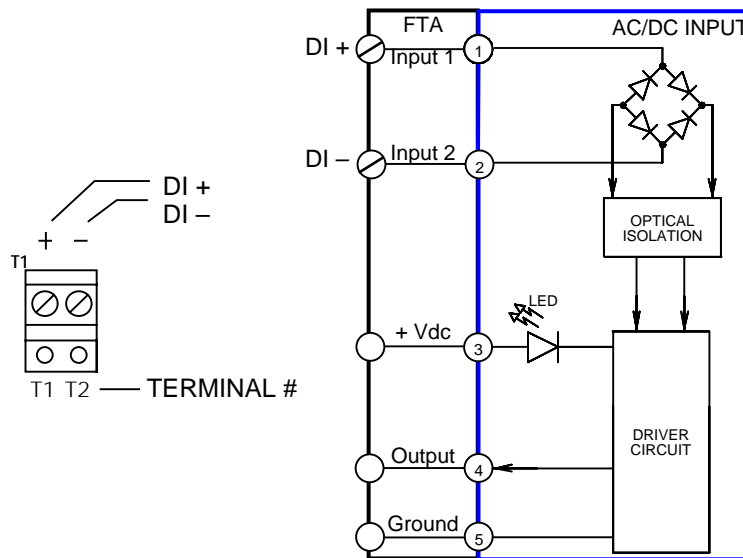


Figure 2 Discrete Input CM Wiring Block Diagram

**Note:** This module has a green LED indicator that shows the module is powered and the input is active.

**Note:** The Reliant SC controller requires the discrete inputs use an external loop power source. For Vanguard FTAs, each discrete input circuit includes a six-pin jumper that matches it to internally (FTA) or externally-powered field devices.

Local conditioning modules can be installed in the following assemblies. See the following data sheets for additional information.

- *Vanguard Simplex Discrete I/O FTA* [DS5204]
- *Vanguard Duplex Discrete I/O FTA* [DS5206]
- *Vanguard High-Density Discrete Input FTA* [DS5130]
- *Reliant SC Controller* [DS5152]

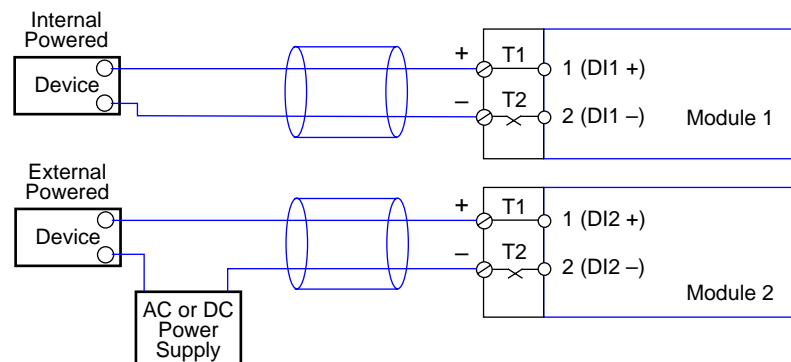


Figure 3 CM-2-102 Wiring Block Diagram