24 VDC Input, Positive/Negative Logic, 64 Circuits
IC655MDL503

This module provides 64 circuits for connection to user input devices. 32 LEDs on the module indicate the status of the 32 Inputs associated with one connector. A toggle switch above the top (J1) connector allows the user to choose the group of inputs being monitored (A to D, or E to H). The top 16 LEDs perform a dual function. They normally provide a visual indication of the status of each input circuit with each LED reflecting the ON or OFF state of the corresponding circuit. Second, when commanded through programming, they indicate the starting I/O address for the module.

Field wiring connections from input devices is made to two 37-pin subminiature D-type connectors (labeled J1 (A-D) and J2 (E-H)), mounted on the front of the module. One connector is used for two groups with 16 inputs in each group. The four groups are labeled A and B (group 1), C and D (group 2), E and F (group 3), and group 4 is G and H. The pins in each group are labeled 1 to 8, for example: group 1 is A1 to A8 and B1 to B8. Each group has a common connection, labeled C. The user must supply the source of power, which can be from 20 to 28 VDC, to reflect the state of the inputs to the module. All groups can be powered from a common source or from different sources. The circuits can operate as either positive or negative logic, depending on how the source voltage is connected to the module. Examples of these connections are shown in the following wiring diagram for the module.

Table 9. Specifications for 24 VDC Input, Positive/Negative Logic - 64 Circuits

Input Circuit Type	Positive/Negative Logic (selectable)
Number of Circuits	64
Internal Circuit Grouping	Four groups, 16 circuits per group
Operating Voltage	20 to 28 VDC
Input Current	5 mA at 24 VDC
ON Level (E applied by user)	19 VDC; between C and Input terminal
OFF Level (E applied by user)	10 VDC; between C and Input terminal
Maximum OFF Leakage	1.6 mA
Minimum ON Current	3.5 mA
OFF to ON Response	2 to 10 ms
ON to OFF Response	2 to 10 ms
Status Indicator Location	Logic side
Internal Power Consumption (5 VDC)	Total; 136 mA (typical), 180 mA (maximum) 50 mA + 0.1 mA per On point + 2.5 mA per On LED
Weight	39 oz (600 g)

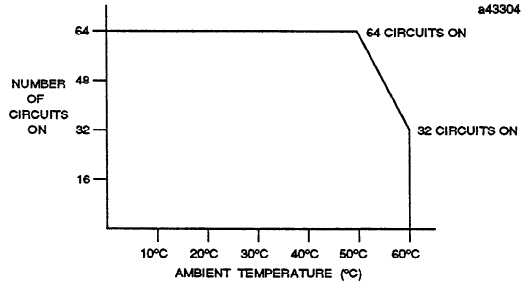

Figure 11. Input Points vs. Temperature for IC655MDL503

Wiring Information - IC655MDL503

The following figure provides the information required for connecting field devices to this module.

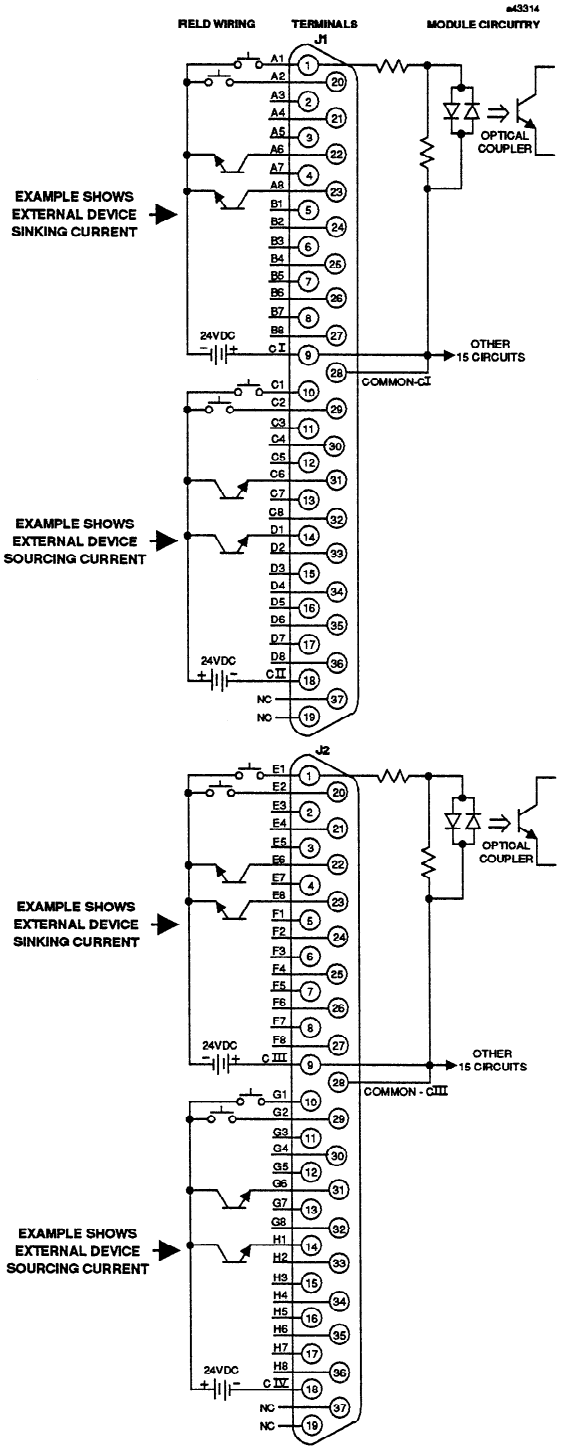

Figure 12. Field Wiring and Typical Circuit for IC655MDL503