## Input Module, 24 VDC Pos/Neg Logic, 32 Point: IC694MDL655



The **24VDC** *Positive/Negative Logic Input* module, IC694MDL655, provides 32 discrete input points. The inputs are positive or negative logic inputs and will operate at levels up to 30V.

The inputs are arranged in four isolated groups of eight; each group has its own common. Isolation is provided between the four groups of inputs, however each group of eight inputs is referenced to the same user common connection. This module reports no special fault or alarm diagnostics.

Power to operate field devices can come from an external supply or from the module's isolated +24 VDC output.

Green LEDs indicate the ON/OFF status of each point. The blue band on the front shows that MDL655 is a low-voltage module.

This module can be installed in any I/O slot in the RX3i system.

## Specifications: MDL655

| Rated Voltage                | 24 volts DC, Positive or Negative Logic  |
|------------------------------|--|
| Input Voltage Range          | 0 to 30 volts DC   |
| Inputs per Module            | 32 (four groups of eight inputs each)  |
|                              | The maximum number of inputs on at the same time depends on the ambient temperature, as shown below. |
| Isolation:                   |  |
| Field to Backplane (optical) | 250 VAC continuous; 1500 VAC for one minute  |
| and to frame ground          |  |
| Group to Group               | 50 VAC continuous; 500 VAC for one minute  |
| Input Current                | 7.0mA (typical ON current @ 24 VDC)  |
| Input Characteristics        |  |
| On-state Voltage             | 11.5 to 30 volts DC  |
| Off-state Voltage            | 0 to 5 volts DC  |
| On-state Current             | 3.2mA (minimum)  |
| Off-state Current            | 1.1mA (maximum)  |
| On response Time             | 2ms maximum  |
| Off response Time            | 2ms maximum  |
| Internal Power Consumption   | 195mA (maximum) from +5V bus on backplane;   |
|                              | (29mA +0.5mA/point ON +4.7mA/LED ON)   |
|                              | 224mA (typical) from isolated +24V bus on  |
|                              | backplane or from user input supply @ 24VDC  |
|                              | and all 32 inputs ON)  |

Refer to Appendix A for product standards and general specifications.



## Input Points vs. Temperature

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## Field Wiring: MDL655

Connections are made to two male 24–pin connectors (Fujitsu FCN–365P024–AU) on the front of the module. Wiring from the module's connectors to field devices is made through a cable having a mating female connector on one end and stripped and tinned wires on the other end. You can purchase a pair of pre–wired cables, catalog numbers IC693CBL327 and IC693CBL328 or build cables. See appendix B for more information.



Note: If the 24V OUT pin is used to connect to input devices in the field, the isolation specification for this module changes to:

Field to Backplane (optical) and to frame ground: 50 VAC continuous; 500 VAC for 1 minute