GE Field Control Series Service Manual

IC670MDL640

1. Description

24VDC Pos./Neg. Logic Input, 16 Point, Grouped MDL640 GE Fanuc Field Control IC670 IC670MDL The IC670MDL740 is a 16-Point discrete input module from the Field control series of GE Fanuc. This module has Sixteen (16) positive / negative logic input channels that accepts an output signal voltage range of 0-30 VDC at nominal voltage of 24 VDC and user input current of 7.5 mA per point. This module has a current draw of 75 mA from the Bus Interface Unit (BIU) power supply with all Technical specif

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**Field Control**
Manufacturer	**GE Fanuc**
Part	**Number IC670MDL640**
Part	**Number IC670MDL640**
Rated	**Voltage 24 Volts DC**
Product	**Description Discrete Input Module**
Input	**Voltage Range 0 to 30 Volts DC**
No.	**of channels Sixteen (16)**
Number	**of Points 16**
Input	**signal, nominal 24 VDC**
Current	**(User Input) 7.5 milliamps per point at 24 Volts DC**
Input	**signal, range 0-30 VDC**
Isolation	**Voltage 250 Volts AC (continuous) / 1500 Volts AC for 1 minute**
Input	**current 7.5 mA**
Input	**Impedance 3K typical**
Current	**Drawn from BIU power supply 75 mA, typical; 83 mA, maximum**
On-state	**Voltage +15 to +30 Volts (positive logic) / -15 to -30 Volts (negative logic)**
User	**input to logic, user input to frame ground Isolation 1500 VAC for 1 minute; 250 VAC, continuous**
Off-state	**Voltage 0 to +5 Volts (positive logic) / 0 to -5 Volts (negative logic)**
Input	**grouping Single group**
On-state	**Current 3.0 mA to 8 mA**
Input	**response time, On and Off transition 6 ms, typical; 10 ms, maximum**
Off-state	**Current 0 to -5VDC**
On	

3. Product Information

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Series Field Control

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Rated Voltage 24 Volts DC

Product Description Discrete Input Module

Input Voltage Range 0 to 30 Volts DC

No. of channels Sixteen (16)

Number of Points 16

Input signal, nominal 24 VDC

Current (User Input) 7.5 milliamps per point at 24 Volts DC

Input signal, range 0-30 VDC

Isolation Voltage 250 Volts AC (continuous) / 1500 Volts AC for 1 minute

Input current 7.5 mA

Input Impedance 3K typical

Current Drawn from BIU power supply 75 mA, typical; 83 mA, maximum

On-state Voltage +15 to +30 Volts (positive logic) / -15 to -30 Volts (negative logic)

User input to logic, user input to frame ground Isolation 1500 VAC for 1 minute; 250 VAC, continuous

Off-state Voltage 0 to +5 Volts (positive logic) / 0 to -5 Volts (negative logic)

Input grouping Single group

On-state Current 3.0 mA to 8 mA

Input response time, On and Off transition 6 ms, typical; 10 ms, maximum

Off-state Current 0 to -5VDC

On state voltage +15 VDC to +30 VDC for Positive Logic; -15 VDC to -30 VDC for negative logic Off-state

Response Time (On) 6 milliseconds (typical) / 10 milliseconds (maximum)

Off state voltage 0 to +5VDC for Positive logic; 0 to -5VDC for negative logic

Response Time (Off) 6 milliseconds (typical) / 10 milliseconds (maximum) Description

The IC670MDL640 is part of the Filed control series that is manufactured by GE Fanuc. This module is a designed to function as an expansion input module that is installed along the module where the Bus Interface Unit (BIU) module resides. It comes with a Sixteen (16) input channels that support positive and negative logic wiring configuration. With the support for such wiring configurations, this module is applicable in different regions as Positive and Negative logic wiring utilization is sometimes dictated by the applicable standard within a specific region or area of installation. The IC670MDL640 input channels are designed to accept input signal voltage range of 0-30 VDC with nominal voltage of 24 VDC and user input current of 7.5 mA per point. This module has a current draw of 75 mA that is sourced from the Bus Interface Unit (BIU) power supply, with all inputs active while the maximum current draw is 83 mA. The On-state voltage of this module is rated +15 VDC to +30 VDC for Positive Logic and -15 VDC to -30 VDC for negative logic while the Off-state voltage is 0 to +5VDC for Positive logic and 0 to -5VDC for negative logic configuration. In addition, the On-state current is 3.0 mA to 8 mA while the Off-state current is 0 to -5VDC. The input channels of this module are similar, with typical response time of 6 ms and maximum response time of 10 ms, maximum. This module has a typical input impedance of 3K ohms.

he IC670MDL640 module is one of the Field Control units available through the IC670 product line by GE Fanuc. This module features 16 inputs with positive/negative logic and it allows the users to use the inputs according to the requirements of an application. The IC670MDL640 discrete input module supports special keying capabilities and it attaches to the appropriate terminal block. The unit is compatible with various programmable logic controllers and it is intended for usage with models with the catalog numbers IC670 and IC670MDL. The unit is part of the Field Control series and it is made in accordance with requirements set out in standards like the CE and UL standards. The field control components are manufactured strictly for usage in standard industrial environments but they are not intended for usage in hazardous locations. The IC670MDL640 module is used with box terminals that are electronically joined and it is designed for an operating voltage of 0 to 30 Volts DC. The rated voltage of the unit is 24 Volts DC. In addition to that, the user input current for each point is 7.5 milliamps and it has a current draw of 75 milliamps (typical). The maximum current for a power supply connected to the bus interface unit is 83 milliamps. A module such as the IC670MDL640 module is an important device for providing control over industrial application processes and it can be used as part of stand-alone controller network. This component does not waste panel space and it reduces overall costs due to various safety features.