GE Series 90-70 Series Service Manual

IC697BEM711

1. Description

The IC697BEM711 is a Bus Expansion module that is part of the Series 90-70 Programmable Logic Controller (PAC) series formerly manufactured by GE Fanuc Automation, now under Emerson Automation. This module has Two (2) communication interfaces with port 1 used as an expansion port for establishing a connection to the CPU or other BEM 711 and BEM 713 with a

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**Series 90-70**
Manufacturer	**GE Fanuc / Emerson Automation**
Product	**Description Bus Expansion Module (BEM)**
Part	**Number IC697BEM711**
Series	**Series 90-70**
Slot	**width Single slot**
Product	**type Bus receiver module**
Part	**Number IC697BEM711**
Mounting	**location Series 90-70 CPU baseplate**
Compatibility	**IC697 PLC**
Product	**Description Bus receiver module**
Status	**LED indicators Module OK; Last Rack; Bus Active**
Status	**LEDs OK, BUS Active, Last Rack**
Compatibility	**IC697 PLC**
No.	**of Ports Two (2) 25-pin D-shell connectors**
Slot	**required 1**
Module	**location Slot 1**
Port	**1 function: Expansion port towards the CPU**
Voltage	**input 5 Volts DC**
Rack	**Addressing via Jumper settings**
Port	**2 function: Expansion port away from the CPU**
Current	**input 0.8 Amps**
Voltage	**input 5 Volts DC**
Terminating	**resistor: IC697BEM711**
Data	**connectors 2**
Electrical	**Isolation Non-isolated differential communication**
No.	**of expansion racks Seven (7)**
Effective	**Data Rate 500 Kbytes/sec**
Maximum	**cable length 50 feet (15meters)**
terminator	

3. Product Information

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Technical specifications for IC697BEM711

Brand GE Fanuc

Series Series 90-70

Manufacturer GE Fanuc / Emerson Automation

Product Description Bus Expansion Module (BEM)

Part Number IC697BEM711

Series Series 90-70

Slot width Single slot

Product type Bus receiver module

Part Number IC697BEM711

Mounting location Series 90-70 CPU baseplate

Compatibility IC697 PLC

Product Description Bus receiver module

Status LED indicators Module OK; Last Rack; Bus Active

Status LEDs OK, BUS Active, Last Rack

Compatibility IC697 PLC

No. of Ports Two (2) 25-pin D-shell connectors

Slot required 1

Module location Slot 1

Port 1 function: Expansion port towards the CPU

Voltage input 5 Volts DC

Rack Addressing via Jumper settings

Port 2 function: Expansion port away from the CPU

Current input 0.8 Amps

Voltage input 5 Volts DC

Terminating resistor: IC697BEM711

Data connectors 2

Electrical Isolation Non-isolated differential communication

No. of expansion racks Seven (7)

Effective Data Rate 500 Kbytes/sec

Maximum cable length 50 feet (15meters)

terminator Plug IC697ACC702

Data Rate 500 Kbytes/sec

Backplane current draw 800 mA at 5VDC

The IC697BEM711 is a Bus Interface Module (BEM) that is used for implementing rack expansion. Specifically, this module is a Bus Receiver module. Utilization of this module allows installation of additional I/O and specialty modules and permits installation of up to Seven (7) expansion racks. This module has Two (2) communication interfaces, with port 1 used as an expansion port for establishing a connection to the CPU or other BEM 711 and BEM 713. The other communication interface is used as an expansion port out for connecting to expansion racks or other BEM 711 modules. The permitted between each BEM 711 or BEM 713 is 50 feet or 15 meters. The IC697BEM711 is not limited to rack expansion. System fault isolation can also be achieved as data transmitted to and from the communication cables are low-level signals representing the data available to an expansion rack. Troubleshooting and maintenance are also simplified as an expansion rack can be isolated for troubleshooting. Furthermore, output hold may also be implemented, enabling output modules of a failed or rack under maintenance to retain individual last state. This module is also provided with Three (3) stats LED indicators for indicating Rack OK, Last Rack, and Bus Active. This module is purely configured using the MS-DOS or Windows Programming software packages. The last expansion rack must be installed with a terminating resistor with catalog number IC697ACC702. This component is necessary to signal the end of the network and identify the last node of the expanded configuration. This module supports a transmission rate of 500 Kbytes/sec and a backplane current consumption of 800 mA.

The IC697BEM711 module is a bus receiver module. Features of the IC697BEM711 module include a high-speed parallel bus expansion interface, support for 7 expansion racks, system fault isolation, easy software configuration, and support for holding the machine’s last state. Three LED indicators on the module provide the status of the module as well as the bus expansion port status and expansion status. By using the IC697BEM711 module, expansion to up to a maximum of 7 additional IC697 PLC racks can be achieved by using a total of 15 meters of cable. The IC697BEM711 module takes up one slot in the PLC chassis. Two connectors are provided on the module’s front panel: one connector is used to connect with the upstream or CPU rack and the other connector is used to connect to additional expansion racks through a daisy chain arrangement. The IC697BEM711 bus receiver module needs to be configured using the Windows or MS-DOS programming software function. The current requirement of the module is 0.8 Amps and the module also requires 5 Volts DC input voltage. The expansion interface can transmit data at up to 500 kilobytes per second. A cable measuring up to 15 meters can be used with the expansion interface. The module is designed to support VME standard C.1. When ordering the module, the terminator plug with catalog number IC697ACC702 can also be ordered. Furthermore, the following I/O cables can be ordered: a 5-foot cable with the catalog number IC600WD005A, a 10-foot cable with the catalog number IC600WD010A, a 25-foot cable with the catalog number IC600WD025A, and a 50-foot cable with the catalog number IC600WD050A. System power must be turned off before the IC697BEM711 module is inserted into the slot designated for it.