GE GE □□□ Series Service Manual

IS200ECTBG2A

1. Description

SPECIFICATIONS:

2. Specifications

Specification	Value
Model	**Number IS200ECTBG2A**
Functional	**Acronym ECTB**
Instruction	**Manual Number GEH-6632**
Manufacturer	**General Electric Company USA, GE Industrial Systems**
Series	**EX2100**
Use	**Mode Simplex Mode Only**
Weight	**3lbs 4oz**
Board	**Version ECTBG2**
About	**the IS200ECTBG2A**
The	**GE Energy IS200ECTBG2A Exciter Contact Terminal Board is part of the EX2100 Excitation Control System manufactured by GE Industrial Solutions. The ECTBG2A (G2 Version) is utilized in Simplex Mode as opposed to the G1 version used only in redundant mode. The drawing relating to the IS200ECTBG2A in Simplex Mode can be found under the manuals tab on our page above. The ECTBG2A has six Auxiliary Contact Inputs, two Trip Contact Outputs, and four Form-C Relay Contact Outputs. The ECTB board is provided with Isolated +70V DC for contact wetting from the EPSM Module. In terms of the IS200ECTBG2A model monitoring contact inputs, it monitors two. One of the contact inputs is 52G, while the other is 86G.**

3. Product Information

SPECIFICATIONS:

Part Number: IS200ECTBG2A

Manufacturer: General Electric

Series: EX2100

Relay Break Characteristic: 28 V dc

Operational Mode: Simplex mode only

Customer Power: 125 V dc

Function: Exciter Contact Terminal Board

Relay Control Voltage: 24 V DC

Wetting Voltage: 70 V DC

Weight: 0.34 kg

Dimensions: 150 x 76 x 90 mm

Availability: In Stock

Country/Region of Manufacture: United States

Manual: GEI-100457A

FUNCTIONAL DESCRIPTION:

IS200ECTBG2A is an Exciter Contact Terminal Board manufactured by General Electric as part of the EX2100 series used in the Excitation control system. The ECTB board supports excitation contact outputs and contact inputs. The ECTBG2 board is only used in the simplex mode. Each board contains two trip contact outputs driving a customer lockout, and four general-purpose Form-C relay contact outputs, controlled by the EMIO board. Six auxiliary contact inputs are powered (wetted) with 70 V dc by ECTB. Also, the 52G and 86 G contact inputs are powered and monitored by ECTB. In the redundant case, power comes from the M1 and M2 power supplies. There are also four general-purpose Form-C contact outputs controlled by the EMIO board. Six auxiliary contact inputs are powered (wetted) with 70 V dc and monitored by ECTB. Also, the 52G and 86 G contact inputs are powered with 70 V dc and monitored. In the redundant control, power comes from both the M1 and M2 controllers.

RELAY CONTROL AND FEEDBACK:

Trip Relay Outputs (Simplex/Redundant):

ECTBG2, driven by the EMIO in M1, controls two trip relays normally used as customer lockout drivers. The relay drivers are powered by 24 V dc from the M1 controller. Refer to the previous figure ECTBG2 Terminal Board, Simplex. Each customer lockout is driven by one relay using two parallel normally closed contacts. On the board, the relays are designated K1M1 and K2M1. For redundant control operation with ECTBG1, the three inputs drive three relays that control a 2- out of 3 contact voting circuit.

GENERAL PURPOSE RELAY OUTPUTS (Simplex/Redundant):

ECTBG2 controls four general-purpose relay outputs. The relay drivers are powered by 24 V dc from the M1 controller. Each relay output is a Form-C type with normally open, normally closed, and common terminals. Customer power, nominally 125 V dc, is wired to these terminals. On the board, the relays are designated K1GP, K2GP, K3GP, and K4GP. For redundant operation with ECTBG1, the three inputs are voted in the relay driver, which drives the single coil.

CONTACT INPUTS:

Contact input uses are similar in the simplex and redundant cases, however, the inputs are fanned to the M1, M2, and C controllers for redundant control. In simplex control, only the M1 controller is connected. Six customer-supplied auxiliary contact inputs are powered and monitored by ECTB using 70 V dc from plugs J13M1 and J13M2 are resistor-isolated and supplied to the contacts. The wetting voltage can vary from 63 to 84 V dc. The state of the contact is monitored. The resulting signal drives a red indicating LED, and fans out to M1, M2, and C. One contact from 52G is monitored using the 70 V dc excitation in the same way as the auxiliary inputs. The status is indicated with a red LED. One contact from 86G is wetted with a nominal 70 V dc as above. The state of the contact is monitored by controllers M1, M2, and C.

APPLICATION DATA:

K1 and K2 are the trip relays in controllers M1, M2, and C. K1GP through K4GP are the general-purpose relays. Terminal blocks TB1 and TB2 are held down with two screws and can be removed. Three 25-pin sub-D connectors, J405, J408, and J415 are for cables to the EBKP backplane for connection to the EMIO boards M1, M2, and C. Plugs J13M1 and J13M2 bring in 70 V dc for contact wetting from the M1 and M2 power supplies.

IS200ECTBG2A Technical Specifications

Model Number IS200ECTBG2A

Functional Acronym ECTB

Instruction Manual Number GEH-6632

Manufacturer General Electric Company USA, GE Industrial Systems

Series EX2100

Use Mode Simplex Mode Only

Weight 3lbs 4oz

Board Version ECTBG2

About the IS200ECTBG2A

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When using the IS200ECTBG2A model in the EX2100 system, it must be managed by another board; the board that the ECTB model, as well as others, such as the EXTB, EACF, and EPCT I/O terminal boards, are managed by is the EMIO board; when the model is used with the EMIO board, the EMIO board will collect the input and outputs and then send them as logic level gate pulse signals over the backplane to the ESEL board.