GE GE □□□ Series Service Manual

IS220PAICH1A

1. Description

SPECIFICATIONS

2. Specifications

Specification	Value
Part	**Number: IS220PAICH1A**
OEM	**/ Manufacturer: GE General Electric Industrial Solutions**
Series:	**Mark VI Speedtronic Turbine Controls**
Product	**Type: Analog Input Output Module**
Channels:	**12**
Inputs/Outputs:	**10 Inputs, 2 Outputs**
Revision:	**Rev C**
Weight:	**1lbs 3 oz**
Shipping	**Dimensions: 12x12x12 inches**
Made	**In: USA**
0-20mA	**Current Loop Outputs: 2**
Warranty:	**1 Year**
Ambient	**Temperature Range -22 to 149°F**
Class	**I, Div. 2, Groups A, B, C, D Standard ANSI/ISA - 12. 12.01-2015**
Functional	**Acronym/Abbreviation PAIC**
Functional	**Description Analog I/O Pack**
Functional	**Part Number IS220PAICH1A**
Non-Hazardous	**Certification UL E207865**
OEM	**General Electric Company USA, GE Industrial Systems**
Power	**Supply Min. 27.4 VDC, Nominal 28.0 VDC, and Max. 28.6 VDC**
About	**the IS220PAICH1A**
Described	**as an Analog I/O Pack the IS220PAICH1A model has been approved to be used in hazardous and non-hazardous locations alike, which given birth to its HazLoc Mark VI Turbine Control System Series Subseries classification. The broader Ma**

3. Product Information

SPECIFICATIONS

Part No.: IS220PAICH1A

Manufacturer: General Electric

Product Type: Analog I/O Pack

Series: Mark VI

IS220PAICH1A is an Analog I/O Pack developed under Mark VI series GE. Simplex and Triple Modular Redundant (TMR) Mark VI control systems are available for small applications and big integrated systems with control ranging from a single module to many distributed modules. The system's throughput allows for the operation of up to nine 21-slot VME racks of I/O boards in 40 milliseconds, including data voting. In a method known as Software Implemented Fault Tolerance, inputs are voted in software (SIFT). Each control module's VCMI board gets inputs from the control module backplane and other modules via its own IONet.

In addition to general-purpose I/O, the Mark VI has a number of boards that are specifically designed for direct communication with specific sensors and actuators. In many situations, this minimizes or removes a significant amount of interposing instrumentation. As a result, numerous possible single-point failures in the most crucial area are removed, resulting in increased operational reliability and lower long-term maintenance costs. The diagnostics can also directly interrogate the devices on the equipment for optimal effectiveness thanks to the direct connectivity to the sensors and actuators. This information is used to evaluate the performance of devices and systems. The elimination of peripheral instrumentation reduces spare parts inventories, which is a subtle benefit of this design.

Technical Specifications

Part Number: IS220PAICH1A

OEM / Manufacturer: GE General Electric Industrial Solutions

Series: Mark VI Speedtronic Turbine Controls

Product Type: Analog Input Output Module

Channels: 12

Inputs/Outputs: 10 Inputs, 2 Outputs

Revision: Rev C

Weight: 1lbs 3 oz

Shipping Dimensions: 12x12x12 inches

Made In: USA

0-20mA Current Loop Outputs: 2

Warranty: 1 Year

POWER DISTRIBUTION PACK

MARK VI SERIES

ANALOG INPUT/OUTPUT PACK

28 VDC

IS220PAICH1A Technical Specifications

Ambient Temperature Range -22 to 149°F

Class I, Div. 2, Groups A, B, C, D Standard ANSI/ISA - 12. 12.01-2015

Functional Acronym/Abbreviation PAIC

Functional Description Analog I/O Pack

Functional Part Number IS220PAICH1A

Non-Hazardous Certification UL E207865

OEM General Electric Company USA, GE Industrial Systems

Power Supply Min. 27.4 VDC, Nominal 28.0 VDC, and Max. 28.6 VDC

About the IS220PAICH1A

Described as an Analog I/O Pack the IS220PAICH1A model has been approved to be used in hazardous and non-hazardous locations alike, which given birth to its HazLoc Mark VI Turbine Control System Series Subseries classification. The broader Mark VI Turbine Control System Series that this IS220PAICH1A Analog I/O Pack modular assembly product offering belongs to, as partially evidenced through its GE-developed full extended product series title, exists with a specific set of possible functional product applications in the control and management systems of GE-compatible gas, steam, and wind turbine automated drive assemblies. This must be highlighted as quite the important functional improvement upon the previously rolled-out industry standard of the Mark V Turbine Control System Series, as this IS220PAICH1A Analog I/O Pack product's Mark VI Series added the more alternative energy-focused wind turbine possible functional application onto the gas and steam turbine settings established originally through the Mark V.

Hardware Tips and Specifications

On the front of the model, there are four indicators. There is also one port on the bottom which is described as an I/O port. There are several voltages that can be used with the PAIC pack, the minimum voltage of the PAIC pack is twenty-seven point four volts of direct current. There are a variety of certifications associated with the IS220PAICH1A pack due to its ability to be used in a number of locations, some of which are hazardous locations, class one zone two group IIC, class one division two groups A, B, C, D, and ATEX zone two, group IIC and non-hazardous locations as well. The following certifications are used for the locations, UL E207685, and UL DEMKO 12 ATEX 1114875X, please take into account that the UL E207685 certification is used in numerous locations. There are three models that can be used with the IS220PAICH1A unit which are the IS200STAIH1A and IS200STAIH2A as well as the IS20TBAIH1C model. All of these models are referred to are known as input-output terminal boards. This IS220PAICH1A Analog I/O Pack device is not the originally-developed device of its particular Mark VI Series functionality; that would be the IS220PAICH1 parent Analog I/O Pack not taking advantage of this IS220PAICH1A Analog I/O Pack device's sole A-rated functional revision.

The typical location for the PAIC I/O pack will be in one of the two available VME racks which are the thirteen or twenty-one slot racks. Please note that this unit will typically be used with a triple modular redundant architecture system. With the TMR system, there is an individual control module, I/O net, and main processor card. This IS220PAICH1A Analog I/O Pack device's IS220PAICH1A Analog I/O Pack functional product number was actually specifically designed by General Electric to indicate a number of important IS220PAICH1A Analog I/O

Pack hardware qualities, including its special modular Mark VI Series assembly, PAIC functional product abbreviation, conformal style of PCB protective chemical coating, group one Mark VI Series product grouping, and finally its sole A-rated functional style of Mark VI Series product revision. This IS220PAICH1A Analog I/O Pack device is well-contextualized online within a wealth of originally-designed instructional manual materials. These materials specifically consider this IS220PAICH1A Analog I/O Pack printed circuit board modular assembly product offering's basic voltage specifications in a chart form, with these including the:

28.6 V dc Power Supply Voltage with a 0.49 A dc Current

10 V dc Max 1-8 Input Voltage with a 20 mA dc Max Current

5 V dc 9-10 Max Voltage with a 20 mA dc Max Current

16.3 V dc Outputs Max Voltage with a 20 mA dc Max Current

25.2 V d Analog Transmitter Max Voltage with a 21 mA dc Max Current