

Allen-Bradley 1756 Series Service Manual

1756-IR12

1. Description

The 1756-IR12 ControlLogix analog input module features 12 channels in the 3-wire RTD mode and it is used as a general-purpose I/O device. The component is made by Allen-Bradley/Rockwell Automation and it is part of the Bulletin 1756 product line. The module has a 24-bit resolution and input that includes 1 to 500, 2 to 1000, 4 to 2000, and 8 to 4000 Ohms ranges. Technical specifications for 1756-IR12

2. Specifications

Specification	Value
Brand	Allen-Bradley / Rockwell Automation
Series	ControlLogix
Part	Number 1756-IR12
Application	General purpose I/O
Module	type Analog input, 3-wire RTD connections
Number	of channels 12, non-isolated
Data	resolution 24-bit
Mounting	Chassis
Display	Status LED
Input/output	range 1 to 500/2 to 1000/4 to 2000/8 to 4000 Ohms
Isolation	voltage 250 Volts (continuous)
Current	draw at 5.1 Volts DC 200 milli Amps
Current	draw at 24 Volts DC 150 milli Amps
Operating	temperature 0 to 60 degrees Celsius (32 to 140 degrees Fahrenheit)
UPC	887172654879
UNSPSC	32151705 Description
The	analog input module that is known as the 1756-IR12 module has been designed by Allen-Bradley/Rockwell Automation and it is made for general-purpose applications and it has a variety of features in order to meet different requirements. The module has features like a notch filter, different module input ranges, a digital filter, a detection feature for under-range/over-range situations, sensor offset, wire off detection,

3. Product Information

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The analog input module that is known as the 1756-IR12 module has been designed by Allen-Bradley/Rockwell Automation and it is made for general-purpose applications and it has a variety of features in order to meet different requirements. The module has features like a notch filter, different module input ranges, a digital filter, a detection feature for under-range/over-range situations, sensor offset, wire off detection, and different sensor types. The 1756-IR12 module provides different input ranges for different sensor types and has the ability to automatically select the last used range-sensor configuration. The unit is part of the Bulletin 1756/ControlLogix product family which offers several other input modules with specifications geared to meet the demands of different applications in industrial environments.

The 1756-IR12 analog input module supports 3-wire RTD connections and it has 12 analog non-isolated channels. The module features 24-bit resolution and a status LED display. The module provides the following input/output ranges: 1 to 500, 2 to 1000, 4 to 2000, and 8 to 4000 Ohms. The 1756-IR12 module has a current draw of 200 milliAmps at 5.1 Volts and one of 70 milliAmps at 24 Volts. This component dissipates up to 2.7 Watts of power and it has a thermal dissipation of 9.2 BTU per hour. The module features overvoltage protection of up to +/- 30 Volts DC and it has a channel bandwidth that is dependent on the notch filter configuration. The 1756-IR12 input module has a continuous insulation voltage of 250 Volts and it features a reinforced insulation type. In addition to that, the unit mounts on a chassis and it has an operating temperature of 0 to 60 degrees Celsius (32 to 140 degrees Fahrenheit). The Allen-Bradley 1756-IR12 module is a ControlLogix Series high-resolution input module with 12 inputs. It is also known as an RTD input module or temperature-sensing module because it can be used for temperature-sensing applications. The 1756-IR12 input module has a T4 temperature code rating. It supports software-configurable electronic module keying and mechanical RTB keying which is user-defined. The 1756-IR12 input module is compatible with a variety of removable terminal blocks in the Allen-Bradley Bulletin 1756 product line, including the 1756-TBCH and the 1756-TBS6H removable terminal blocks. The 1756-IR12 input module uses a Sigma-Delta module conversion method. Its minimum rated module input scan time is 50 ms. The data format that the 1756-IR12 module uses is the IEEE 32-bit floating point data format. When the users calibrate the 1756-IR12 input module, they can calibrate it to operate with RTD inputs (Ohms) or with thermocouple inputs (millivolts). In the RTD mode, the 1756-IR12 input module can support input ranges of 1 to 500 Ohms, 2 to 1000 Ohms, 4 to 2000 Ohms, and 8 to 4000 Ohms. This module supports different types of RTD sensors, including different types of platinum, nickel, and copper sensors. The 1756-IR12 input module's current draw rating at 5.1 Volts DC is 200 mA for a Series A module and 210 mA for a Series B module. Its current draw rating at 24V DC is 70 mA for both Series A and Series B modules. Its total backplane power rating is 2.7 W for a Series A module and 2.75 W for a Series B module. The 1756-IR12 input module's operating temperature range is 0 to 60 degrees Celsius.

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