

Allen-Bradley 1746 1747 Series Service Manual

1762-IQ32T

1. Description

The Allen-Bradley 1762-IQ32T is a MicroLogix 1200 Discrete input module. This module features Thirty-Two (32) input channels in Four (4) isolated groups of Eight (8) channels each. This module accepts 10-30VDC voltage signal range with minimum On-state voltage range of 10VDC. This module supports sink and source wiring configuration. This module is compatible for use with MicroLogix. Technical specifications for 1762-IQ32T

2. Specifications

Specification	Value
Manufacturer	Rockwell Automation
Module	Type High-density Discrete input module
Series	MicroLogix
Part	Number/Catalog No. 1762-IQ32T
Brand	Allen-Bradley
No.	of Inputs Thirty-Two (32) channels
No.	of groups Four (4) isolated groups
Channels	per group: Eight (8)
Compatible	controllers: MicroLogix 1100, 1200 and 1500
Nominal	input voltage 24VDC
Input	voltage range 10-30 VDC
ON-state	Current, min. 1.6 mA @ 10V DC; 2 mA @ 15V DC
Signal	Delay, ON transition 8 ms
Backplane	Current, 5.1VDC 170 mA
Backplane	Current, 24VDC 0 mA
Isolation	rating Verified by one of the following dielectric tests: 1,200V AC for 2 s or 1,697V DC for 2 s 75V DC working voltage (IEC Class 2 reinforced insulation)
Input	Power 24 Volts DC (Sink/Source)
Operating	Voltage Range 10 to 26.4 Volts DC
Inputs	32
Mounting	Type DIN Rail
Bus	Current Draw 0-70 milliamperes
Signal	Delay 8 milliseconds
Heat	Dissipation 5.4 to 6.8 Watts
UPC	10612598849908 Description
The	Allen-Bradley 1762-IQ32T is an high-density discrete input modu

3. Product Information

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Manufacturer Rockwell Automation

Module Type High-density Discrete input module

Series MicroLogix

Part Number/Catalog No. 1762-IQ32T

Brand Allen-Bradley

No. of Inputs Thirty-Two (32) channels

No. of groups Four (4) isolated groups

Channels per group: Eight (8)

Compatible controllers: MicroLogix 1100, 1200 and 1500

Nominal input voltage 24VDC

Input voltage range 10-30 VDC

ON-state Current, min. 1.6 mA @ 10V DC; 2 mA @ 15V DC

Signal Delay, ON transition 8 ms

Backplane Current, 5.1VDC 170 mA

Backplane Current, 24VDC 0 mA

Isolation rating Verified by one of the following dielectric tests: 1,200V AC for 2 s or 1,697V DC for 2 s 75V DC working voltage (IEC Class 2 reinforced insulation)

Input Power 24 Volts DC (Sink/Source)

Operating Voltage Range 10 to 26.4 Volts DC

Inputs 32

Mounting Type DIN Rail

Bus Current Draw 0-170 milliamps

Signal Delay 8 milliseconds

Heat Dissipation 5.4 to 6.8 Watts

UPC 10612598849908 Description

The Allen-Bradley 1762-IQ32T is an high-density discrete input module that is part of the MicroLogix Programmable Logic Controller (PLC) platform. This module is compatible for use with MicroLogix 1100, 1200 and 1400 controllers. It features Thirty-Two (32) input channels with group isolation. Specifically, this module has Four (4) groups of Eight (8) channels each group.

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The 1762-IQ32T supports sink and source wiring configuration. The input channels are designed to accept an input voltage range of 10-30 VDC with nominal voltage level of 24VDC. Each channel has a minimum ON-state voltage of 10VDC and maximum Off-state voltage of 5VDC. It has an OFF-state current of 1.0 mA, minimum On-state current of 1.6 mA @ 10V DC or 2 mA @ 15V DC and maximum On-state current of 5.7 mA @ 26.4V DC and 6.5 mA @ 30.0V DC.

This module has physical dimensions of 90 x 40.4 x 87 mm (3.54 x 1.59 x 3.43 in.) and weighs 200 g (7.05 oz). It has backplane current draw of 170 mA @ 5V DC and 0 mA @ 24V DC. The module's input group to backplane isolation is rated 1,200V AC for 2 s or 1,697V DC for 2 s; 75V DC working voltage according to IEC Class 2 reinforced insulation.

Each input channel exhibits a signal delay of 8.0 ms for Off to On transition and 8.0 ms for On to Off transition. Specific input groupings are channel 0-7 as group 1; channels 8-15 as group 2; channels 16-23 as group 3 and channels 24-31 as group 4.

The sink/source module describes the current flow between the input module and a connected device. The devices connected to the negative side of power supply are called the sinking field device and those on the positive side are called sourcing field device. The source always provides current to the sink. The 1762-IQ32T module has a single status LED that indicates power and helps identify the source of all problems. The module communicates and receives 10, 24, and 30 Volts DC power via the 1762 bus interface. For wiring the input terminal blocks, a finger-safe cover is present. The 1762-IQ32T uses bit positions 0 to 15 of words 0 and 1 for input terminals. The operation details must be configured for each channel after module installation. For safety, while troubleshooting, always stand away from the equipment and always check for any program change. Safety circuits should always be wired in series to the master relay. The 1762-IQ32T module should be installed in non-hazardous, dry, and clean environments with circuits not crossing over Voltage Category II Standards. To avoid damage to the module, always avoid electrostatic discharge and remove power. The 1762-IQ32T is an Allen-Bradley 1200 MicroLogix Input Expansion Module. The 1762-IQ32T is an expansion I/O that can be connected to MicroLogix 1200 controllers. This 1762-IQ32T expansion module extends MicroLogix 1200 Memory and/or Real-time Clock modules. 1762-IQ32T MicroLogix 1200 Expansion I/O modules provide additional I/O than what the controller provides. 1762-IQ32T adds 32 inputs to the controller when it is installed. The voltage category of 1762-IQ32T is 24 Volts DC sink/source. The operating voltage range of 1762-IQ32T is 10 to 30 Volts DC at 30 degrees Celsius or 10 to 26.4 Volts DC at 60 degrees Celsius.