

# Product Details and Certifications

Cross Reference RA Part Number: PN-137681



Product: **1734-AENT**

Description: 1-Port EtherNet I/O Adapter Module



Representative Photo Only (actual product may vary based on configuration sections)

## **POWER SUPPLIES**

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Bulletin Number	1734 EtherNet I/O Terminal Adapter
Input Voltage Rating	24V DC @ 10 A
Input Voltage Range	10...28.8V DC
Field Side Power, Max	24V DC @ 400 mA
Inrush Current, Max	6.0 A for 10 ms
Input Overvoltage Protection	Reverse polarity protected
POINTBus Output, Max	5V DC @ 1.0 A
Interruption	Output voltage stays within specifications when input drops out for 10 ms @ 10V with max load

## **ETHERNET COMMUNICATIONS**

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EtherNet Communication Rate	10/100 Mbits/s, half or full-duplex
EtherNet Ports	1
EtherNet Network Topologies Supported	Star, Tree
EtherNet Connectors	RJ-45, Category 5
EtherNet Cable	Category 5: Shielded or Unshielded

## **CERTIFICATIONS AND APPROVALS**

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UL  
CE  
C-Tick  
Ex / ATEX  
KC

For UL Certifications Directory:

<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

## Specifications

### General Specifications



The 1734-AENT adapters have the following general specifications.

### General Specifications

Attributes	Description
Expansion I/O capacity, max	<ul style="list-style-type: none"> <li>• 63 modules</li> <li>• Up to 5 rack-optimization (for digital modules only) and/or enhanced rack-optimization (for digital, analog, and specialty modules) connections</li> <li>• 31 direct connections<sup>(1)</sup></li> <li>• Backplane current output = 1.0 A.</li> <li>• Actual number of modules can vary.</li> <li>• Add together the current requirements for the modules you want to use to make sure they do not exceed the amperage limit of 1.0 A for the adapter.</li> <li>• Backplane current can be extended beyond 1.0 A by 1734-EP24DC or 1734-EPAC backplane extension power supplies.</li> <li>• Add multiple 1734-EP24DC or 1734-EPAC modules to reach the 63 module max.</li> </ul>
POINTBus current requirements, max	<ul style="list-style-type: none"> <li>• 50 mA (Catalog number 1734-IB4D)</li> <li>• 75 mA (Catalog numbers 1734-IB2, 1734-IB4, 1734-IB8, 1734-IV2, 1734-IV4, 1734-OB2, 1734-OB4, 1734-OB8, 1734-OB2E, 1734-OB2EP, 1734-OB4E, 1734-OB8E, 1734-OV2E, 1734-OV4E, 1734-232ASC, 1734-485ASC, 1734-ARM, 1734-IV8, 1734-OV8E, 1734-IE4C, 1734-IE8C, 1734-OE4C, 1734-IA4, 1734-IM4, 1734-OA4, 1734-IR2E, 1734-IE2C, 1734-OE2C, 1734-IE2V, 1734-OE2V, 1734-IA2, 1734-IM2, 1734-OA2)</li> <li>• 80 mA (Catalog number 1734-OW2, 1734-OW4)</li> <li>• 100mA (Catalog numbers 1734-OX2, 1734-8CFG, 1734-4IOL)</li> <li>• 110mA (Catalog number 1734-SSI)</li> <li>• 160mA (Catalog numbers 1734-IJ2, 1734-IK2)</li> <li>• 175mA (Catalog number 1734-IT2I)</li> <li>• 180mA (Catalog numbers 1734-VHSC5, 1734-VHSC24)</li> <li>• 220 mA (Catalog number 1734-IR2, 1734-IR2E)</li> </ul>
Module location	Starter module – left side of the system.

(1) Maximum 31 direct connections for standard I/O or maximum 20 direct connections if any safety I/O module resides in the backplane.



**General Specifications**

Attributes	Description
Status indicators	3 red/green status indicators (on CPU): <ul style="list-style-type: none"> <li>– Module status</li> <li>– Network status</li> <li>– POINTBus status</li> </ul> 1 green status indicator on CPU: <ul style="list-style-type: none"> <li>– Network activity</li> </ul> 2 green power supply status indicators on DC-DC Converter: <ul style="list-style-type: none"> <li>– System power (5V DC to POINTBus Out)</li> <li>– Field power (24V DC from Field In)</li> </ul>
Wire Size	Power connections: 0.34... 2.1 mm <sup>2</sup> (22...14 AWG) solid or stranded copper wire rated @ 75 °C (167 °F) or greater, 1.2 mm (3/64 in.) insulation max or 90 °C (194 °F) for ControlLogix. Ethernet wiring: RJ45 connector according to IEC 60603-7, 2 or 4 pair Category 5e min cable according to TIA 568-B.1 or Category 5 cable according to ISO/IEC 24702.
Wiring category <sup>(1)</sup>	1 – on communications ports 1 – on power ports
Power consumption, max	4.5W @ 28.8V DC
Power dissipation, max	15.5W @ 28.8V DC
Input overvoltage protection	Reverse polarity protected
Thermal dissipation, max	9.5 BTU/hr @ 28.8V DC
Isolation voltage	50V (continuous), Reinforced Insulation Type, between all circuits. Type tested @ 500V AC for 60 s
Field power supply	10...28.8V DC @ 10A
Field power output	10...28.8V DC @ 9A
Module input	10...28V DC @ 1000 mA
Dimensions (HxWxD), approx.	76.2 x 54.9 x 133.4 mm (3.0 x 2.16 x 5.25 in.)
Enclosure type rating	None (open-style)
Terminal base screw torque	0.8 Nm (7 lb-in)
Weight, approx.	255 g (0.56 lb)

(1) Use this Conductor Category information for planning conductor routing. Refer to the Industrial Automation Wiring and Grounding Guidelines, publication [1770-IN041](#) and to the appropriate System Level Installation Manual.

**Power Supply**



The 1734-AENT modules have the following power supply specifications:

**Power Supply Specifications**

Attributes	Description
Input voltage rating	24V DC @ 10 A
Input voltage, range	10...28.8V DC
Field side power, max	24V DC @ 400mA
Inrush current, max	6.0 A for 10 ms



**Power Supply Specifications**

Attributes	Description
Input overvoltage protection	Reverse polarity protected
POINTBus output, max	5V DC @ 1.0 A
Interruption	Output voltage stays within specifications when input drops out for 10 ms @ 10V with max load

**EtherNet Communication**

The 1734-AENT adapter modules have the following EtherNet communication specifications.



**EtherNet Communication Specifications**

Attributes	Description
Ethernet communication rate	10/100 Mbits/s, half or full-duplex
Ethernet port	1
Ethernet network topologies supported	Star, Tree
Ethernet connectors	RJ-45, Category 5
Ethernet cable	Category 5: shielded or unshielded
Ethernet wire connections, max	See <a href="#">Wire Size</a> on page 84

**Environmental Specifications**

The 1734-AENT EtherNet/IP Adapter modules have the following environmental specifications.

**Environmental Specifications**

Attributes	Description
Temperature, operating	IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock): -20...55 °C (-4...131 °F)
Temperature, nonoperating	IEC60068-2-1 (Test Ab, Unpackaged Nonoperating Cold) IEC60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat) IEC60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock): -40...85 °C (-40...185 °F)
Temperature, surrounding air, max	55 °C (131 °F)
Relative humidity	IEC 60068-2-30 (Test Db, Unpackaged Damp Heat): 5...95% non-condensing
Vibration	IEC 60068-2-6 (Test Fc, Operating): 5 g @ 10...500 Hz
Shock, operating	IEC60068-2-27 (Test Ea, Unpackaged Shock): 30 g
Shock, nonoperating	IEC60068-2-27 (Test Ea, Unpackaged Shock): 50 g