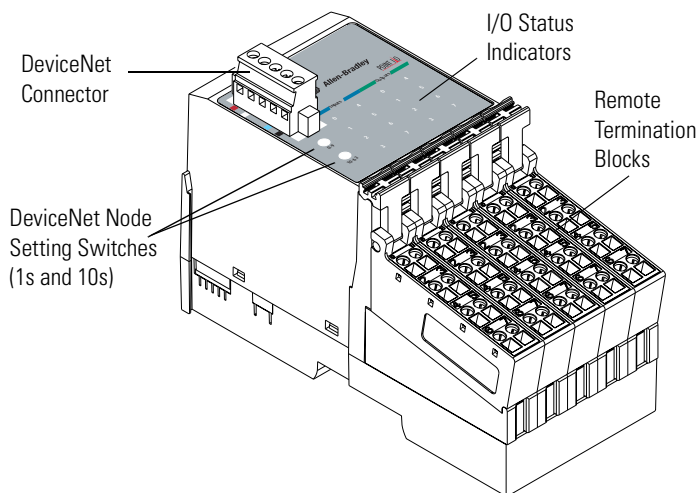




## Installation Instructions

# POINTBlock ac 8 Input/8 Output Module

(Cat. No. 1734D-IA8X0A8, -IA8X0A8S)

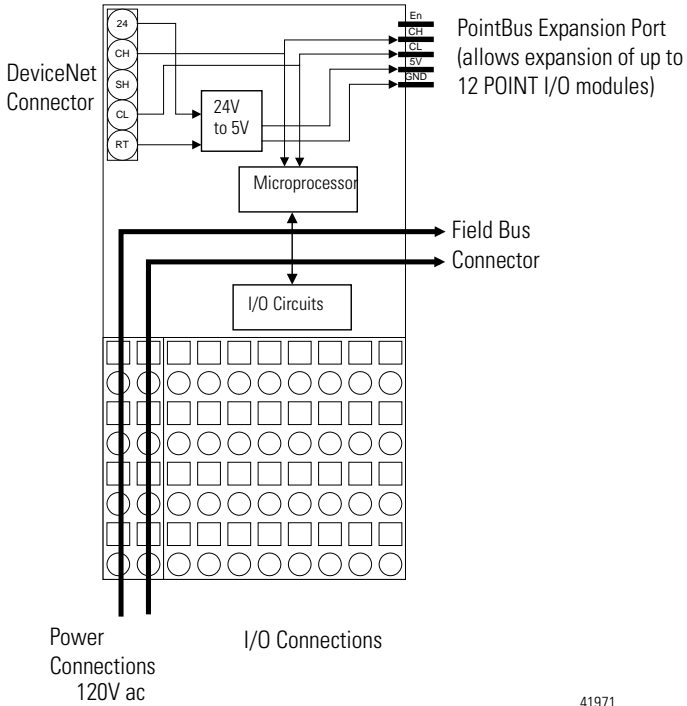


This 1734D input/output module is a DIN-rail mounted device with an integrated DeviceNet communication interface, 8 ac inputs and 8 ac outputs, removable terminations, and a PointBus expansion port. The expansion port allows you to add up to 12 additional POINT I/O modules.

The module includes a non-isolated DeviceNet communication interface. The 24V dc from the DeviceNet connection powers a non-isolated dc/dc converter that generates +5V dc which powers the POINTBlock electronics and connects to the PointBus port to power the expansion I/O electronics.

The 1734-IA8X0A8 uses cage-clamp terminations, and the 1734-IA8X0A8S uses spring-clamp terminations.

## 2 POINTBlock ac 8 Input/8 Output Module



41971

**ATTENTION**

Whatever field power you supply is connected to the internal field-power bus. **For example, if 120V ac is applied to the power connections, there will be 120V ac applied to the modules through the internal field-power bus.**

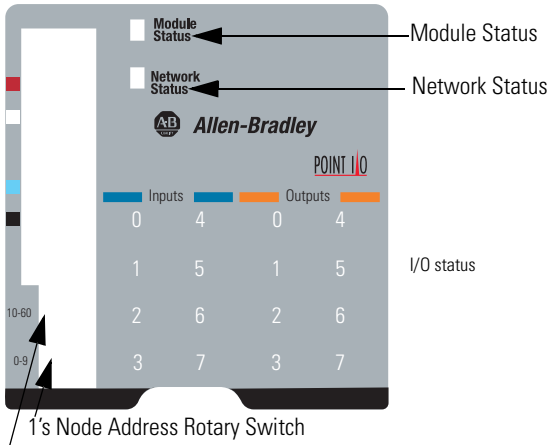
POINT I/O modules to the right of the module will also have that internal power bus voltage applied, unless you use a 1734-FPD to interrupt and change the field power-bus voltage.

---

**ATTENTION**

POINTBlock is designed to be grounded through the DIN rail to chassis ground. To assure proper grounding of POINTBlock and POINT I/O adapters and terminal bases to chassis ground, the recommended DIN rail material is zinc-plated, yellow-chromated steel. Mount POINTBlock, POINT I/O adapters and terminal bases only to zinc-plated, yellow-chromated steel.

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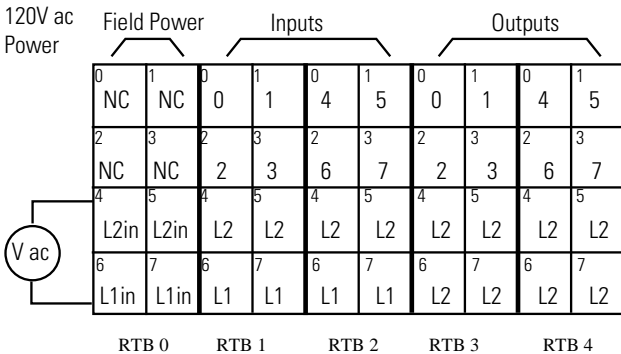


10's Node Address Rotary Switch

42004

To set the node address, set the combination of 1's and 10's to correspond to the required address. (For example, for 61, set the 10's switch to 6 and the 1's switch to 1.)

### Wiring



This supply will be connected to the internal power bus.

NC = No Connection

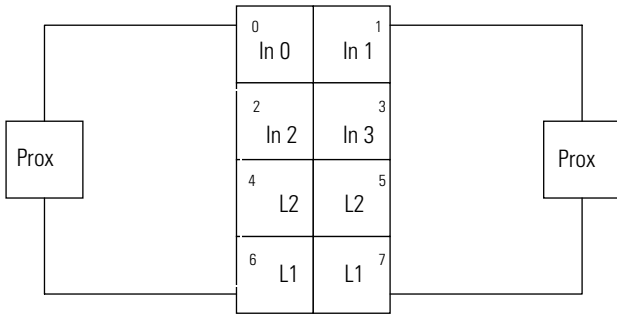
Chas Gnd = Chassis Ground

L2/N = AC Return/Neutral

L1 = AC Power

41976

## Input Wiring



L1 = 120V ac

L2 = Return

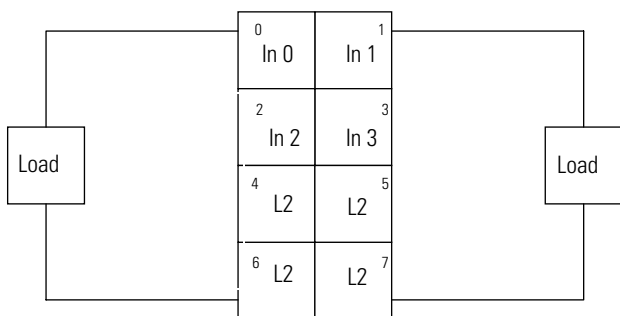
41967ac

Channel	Input Terminal	Return	Voltage
<b>Remote Termination Block 1</b>			
0	0		6
1	1		7
2	2		6
3	3		7
<b>Remote Termination Block 2</b>			
4	0		6
5	1		7
6	2		6
7	3		7

120V ac is supplied through the internal power bus.

**Note:** When connecting more than 1 wire in a termination point, make sure that both wires are the same gauge and type.

## Output Wiring



L1 = 120V ac

L2 = Return

41967ac

	Output Terminal	Common Terminal	Power
<b>Remote Termination Block 3</b>			
Channel 0	0, 2	4	
Channel 1	1, 3	5	
Channel 2	0, 2	4	
Channel 3	1, 3	5	
<b>Remote Termination Block 4</b>			
Channel 4	0, 2	4	
Channel 5	1, 3	5	
Channel 6	0, 2	4	
Channel 7	1, 3	5	

Module power is supplied from the internal power bus.





**Note:** When connecting more than 1 wire in a termination point, make sure that both wires are the same gauge and type.

---

## DeviceNet Connector Wiring

DeviceNet connection	Red	+V
	White	CAN - High
	Bare	Shield
	Blue	CAN - Low
	Black	-V

42132

<p><b>C-UL and UL Hazardous Location Approval</b></p>	<p><b>Approbation d'utilisation dans des environnements dangereux par la C-UL and UL</b></p>
<p>C-UL and UL certifies products for general use as well as for use in hazardous locations. <b>Actual C-UL and UL certification is indicated by the product label</b> as shown below, and not by statements in any user documentation.</p>	<p>La C-UL and UL certifie des produits pour une utilisation générale aussi bien que pour une utilisation en environnements dangereux. La certification C-UL and UL en vigueur est indiquée par l'étiquette produit et non par des indications dans la documentation utilisateur.</p>
<p>Example of the C-UL and UL certification product label:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>LISTED</p> </div> <div style="text-align: center;"> <p><b>CL I, DIV 2 GP A,B,C,D TEMP</b></p> <div style="background-color: black; width: 60px; height: 20px; margin: 0 auto;"></div> </div> </div>	<p>Exemple d'étiquette de certification d'un produit par la C-UL and UL :</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>LISTED</p> </div> <div style="text-align: center;"> <p><b>CL I, DIV 2 GP A,B,C,D TEMP</b></p> <div style="background-color: black; width: 60px; height: 20px; margin: 0 auto;"></div> </div> </div>
<p>To comply with C-UL and UL certification for use in hazardous locations, the following information becomes a part of the product literature for this C-UL and UL-certified industrial control product.</p> <ul style="list-style-type: none"> <li>This equipment is suitable for use in Class I, Division 2, Groups A, B, C, D, or non-hazardous locations only.</li> <li>The products having the appropriate C-UL and UL markings (that is, Class I, Division 2, Groups A, B, C, D) are certified for use in other equipment where the suitability of combination (that is, application or use) is determined by the C-UL and UL or the local inspection office having jurisdiction</li> <li>Peripheral equipment must be suitable for the location in which it is used.</li> </ul>	<p>EPour satisfaire à la certification C-UL and UL en environnements dangereux, les informations suivantes font partie intégrante de la documentation des produits de commande industrielle certifiés.</p> <ul style="list-style-type: none"> <li>Cet équipement ne convient qu'à une utilisation dans des environnements de Classe I, Division 2, Groupes A, B, C, D ou non dangereux.</li> <li>Les produits portant le marquage C-UL and UL approprié (c'est-à-dire Classe I, Division 2, Groupes A, B, C, D) sont certifiés pour une utilisation avec d'autres équipements, les combinaisons d'applications et d'utilisation étant déterminées par la C-UL and UL ou le bureau local d'inspection.</li> <li>L'équipement périphérique doit convenir à l'emplacement d'utilisation.</li> </ul>
<p><b>Important:</b> Due to the modular nature of a programmable control system, the product with the highest temperature rating determines the overall temperature code rating of a programmable control system in a Class I, Division 2, location. The temperature code rating is marked on the product label as shown.</p>	<p><b>Important:</b> De par la nature modulaire des systèmes de commande programmables, le produit ayant le code de température le plus élevé détermine le code de température global du système dans un environnement de Classe I, Division 2. Le code de température est indiqué sur l'étiquette produit.</p>
<p>Temperature code rating:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>LISTED</p> </div> <div style="text-align: center;"> <p><b>CL I, DIV 2 GP A,B,C,D TEMP</b></p> <div style="background-color: black; width: 60px; height: 20px; margin: 0 auto;"></div> <p>Look for temperature code rating here.</p> </div> </div>	<p>Code de température :</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>LISTED</p> </div> <div style="text-align: center;"> <p><b>CL I, DIV 2 GP A,B,C,D TEMP</b></p> <div style="background-color: black; width: 60px; height: 20px; margin: 0 auto;"></div> <p>Le code de température est indiqué ici.</p> </div> </div>
<p>The following warnings apply to products having C-UL and UL certification for use in hazardous locations.</p>	<p>Les avertissements suivants s'appliquent aux produits ayant la certification C-UL and UL pour une utilisation dans des environnements dangereux.</p>



C-UL and UL Hazardous Location Approval	Approbation d'utilisation dans des environnements dangereux par la C-UL and UL
<p><b>WARNING: Explosion Hazard</b></p> <ul style="list-style-type: none"> <li>• Substitution of components may impair suitability for Class I, Division 2.</li> <li>• Do not replace components unless power has been switched off or the area is known to be non-hazardous.</li> <li>• Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous.</li> <li>• Do not disconnect connectors unless power has been switched off or the area is known to be non-hazardous. Secure any user-supplied connectors that mate to external circuits on this equipment by using screws, sliding latches, threaded connectors, or other means such that any connection can withstand a 15 Newton (3.4 lb.) separating force applied for a minimum of one minute.</li> <li>• Batteries must only be changed in an area known to be non-hazardous.</li> </ul>	<p><b>AVERTISSEMENT : Risque d'explosion</b></p> <ul style="list-style-type: none"> <li>• La substitution de composants peut rendre ce matériel inadapté à une utilisation en environnement de Classe I, Division 2.</li> <li>• Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de remplacer des composants.</li> <li>• Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher l'équipement.</li> <li>• Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher les connecteurs. Fixer tous les connecteurs fournis par l'utilisateur pour se brancher aux circuits externes de cet appareil à l'aide de vis, loquets coulissants, connecteurs filetés ou autres, de sorte que les connexions résistent à une force de séparation de 15 Newtons (1,5 kg - 3,4 lb.) appliquée pendant au moins une minute.</li> <li>• S'assurer que l'environnement est classé non dangereux avant de changer les piles.</li> </ul>
<p>C-UL and UL logo is a registered trademark of the Underwriters Laboratories.</p>	<p>Le sigle C-UL and UL est une marque déposée de la Underwriters Laboratories.</p>

**Specifications - 1734D-IA8XOA8, -IA8XOA8S**

**Input Specifications**

ON-State Voltage	65V ac min
ON-State Current	5.0mA min
OFF-State Voltage	43V ac max
OFF-State Current	2.5mA max
Nominal Input Impedance	17.0k $\Omega$
Input Delay Time OFF to ON ON to OFF	20.0ms hardware + (0 - 65ms selectable) 20.0ms hardware + (0 - 65ms selectable)
External AC Power Supply Voltage	120V ac, 60Hz nominal
External AC Power Supply Voltage Range	85-132V ac, 47-63Hz

**Output Specifications**

Maximum ON-State Voltage Drop	1.2V @ 0.5A
ON-State Current	10mA per output min
ON-State Current	500mA per output max @ 55°C (sufficient to operate an A-B Bulletin 500 NEMA size 3 motor starter) 750mA per output max @ 40°C 1A per output max @ 30°C
OFF-State Leakage	2.25mA max
Output Voltage Range	85-132V ac, 47-63Hz
Output Current Rating	6A per module (6 channels @ 1A each max)
Delay Time OFF to ON ON to OFF	1ms max 1/2 cycle max
External AC Power Supply Voltage	120V ac, 60Hz nominal
External AC Power Supply Voltage Range	85-132V ac, 47-63Hz

**General Specifications**

Pointbus Output Current	1A max @ 5V ac output
DeviceNet Current	95mA maximum for POINTBlock 350mA for maximum with expansion of 12 POINT I/O modules

Number of POINT I/O Expansion Modules	12 maximum added at expansion port
Isolation Voltage	1250Vrms or 2121V dc for 1s between user power and DeviceNet
Indicators	1 red/ green module status indicator 1 red/green network status indicator 16 I/O status indicators (8 input/8 output)
Power Dissipation	2.0W maximum @ 24V dc
Power Consumption	8.2W maximum @ 24V dc
Field Power Bus Supply Voltage	24V dc nominal
Voltage Range	10-28.8V dc
Supply Current	10A max
Dimensions Inches (Millimeters)	3.00H x 2.36W x 5.25L (76.2 Hx 60.0W x 133.4L)
Environmental Conditions	
Operational Temperature	-20 to +55°C (-4 to +131°F)
Storage Temperature	-40 to 85°C (-40 to 185°F)
Relative Humidity	5 to 95% noncondensing
Shock Operating	30g peak acceleration, 11(±1)ms pulse width
Non-operating	50g peak acceleration, 11(±1)ms pulse width
Vibration	Tested 5g @ 10-500Hz per IEC 68-2-6
Conductors Wire Size	14 AWG (2.5mm <sup>2</sup> ) - 22 AWG (0.25mm <sup>2</sup> ) solid or stranded max
Category	3/64 inch (1.2mm) insulation max 2 <sup>1</sup>
Terminal Base Screw Torque	5-7 pound-inches (0.5-0.6 Nm)
Field Wiring Terminations DeviceNet	1 - Black Wire -V 2 - Blue Wire CAN Low 3 - Bare Wire Drain 4 - White Wire CAN High 5 - Red Wire +V
Field Power Supply	0 - No Connection1 - No Connection 2 - No Connection3 - No Connection 4 - AC return 5 - AC return 6 - AC power 7 - AC power
Mass	13.88 oz/393.50 grams

Agency Certification (when product is marked)	<ul style="list-style-type: none"> <li>• C-UL Listed</li> <li>• C-UL Class I, Division 2 Groups A, B, C and D certified</li> <li>• UL listed</li> <li>• CE marked for all applicable directives</li> <li>• C-Tick marked for all applicable acts</li> </ul>
<p>1 Use this conductor category information for planning conductor routing. Refer to publication 1770-4.1, "Industrial Automation Wiring and Grounding Guidelines for Noise Immunity."</p>	

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