Installation Instructions
Original Instructions

POINT I/O Wiring Base Assembly
Catalog Numbers 1734-TB3, 1734-TB3S, 1734-RTB3, 1734-RTB3S

Environment and Enclosure

ATTENTION: This equipment is intended for use in a Pollution Degree 2 industrial
environment, in overvoltage Category II applications (as defined in EN/IEC 60664-1),
at altitudes up to 2000 m (6562 ft) without derating.
This equipment is not intended for use in residential environments and may not provide
adequate protection to radio communication services in such environments.
This equipment is supplied as open-type equipment for indoor use. It must be mounted within
an enclosure that is suitably designed for those specific environmental conditions that will be
present and appropriately designed to prevent personal injury resulting from accessibility to live
parts. The enclosure must have suitable flame-retardant properties to prevent or minimize
the spread of flame, complying with a flame spread rating of SR-1 or be approved for the
application if nonflammable. The interior of the enclosure must be accessible only by the
use of a tool. Subsequent sections of this publication may contain more information
regarding specific enclosure type ratings that are required to comply with certain product
safety certifications.

In addition to this publication, see the following:
• Industrial Automation Wiring and Grounding Guidelines, publication 1730-4, for more
installation requirements.
• NEMA Standard 26 and EN/IEC 60529, as applicable, for explanations of the degrees of
protection provided by different types of enclosure.

Prevent Electrostatic Discharge

ATTENTION: This equipment is sensitive to electrostatic discharge, which can cause internal
damage and affect normal operation. Follow these guidelines when you handle this
equipment.
• Touch a grounded object to discharge potential static.
• Wear an approved grounding wriststrap.
• Do not touch circuit components inside the equipment.
• Do not touch connectors or pins on component boards.
• Use a static-safe work area if available.
• Store the equipment in appropriate static-safe packaging when not in use.

ATTENTION: If this equipment is used in a manner not specified by the manufacturer, the
protection provided by the equipment may be impaired.
ATTENTION: Read this document and the documents listed in the Additional Resources
section about installation, configuration, and operation of this equipment before you install,
configure, operate, or maintain this product. Users are required to familiarize themselves
with installation and wiring instructions in addition to requirements of all applicable codes,
laws, and standards.
ATTENTION: Installation, adjustments, putting into service, use, assembly, disassembly, and
maintenance are required to be carried out by suitably trained personnel in accordance with
applicable code of practice.
ATTENTION: In case of malfunction or damage, no attempts at repair should be made. The
module should be returned to the manufacturer for repair. Do not dismantle the module.
ATTENTION: This equipment is certified for use only within the surrounding air temperature
range of +10 °C to +50 °C (+14 °F to +122 °F). Do not install the equipment outside of this range.
ATTENTION: Use only a soft dry anti-static cloth to wipe down equipment. Do not use any
cleaning agents.

About the Assembly
The POINT I/O wiring base assembly consists of a mounting base (4) and a removable terminal block (RTB)(3). 1734-TB3 uses screw-clamp termination; 1734-TB3S uses spring-clamp terminations.

Prepare the Wires

Wiring Without Wire End Ferrule

<table>
<thead>
<tr>
<th>Wire Size Range</th>
<th>Number of Wires</th>
<th>Strip Length</th>
<th>12-position RTB</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25…2.5 mm²</td>
<td>1</td>
<td>18±1 mm (0.71±0.03 in)</td>
<td>16±1 mm (0.63±0.03 in)</td>
</tr>
<tr>
<td>(18 AWG)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ATTENTION: Do not wire more than 2 conductors on any single terminal.

Wiring With Wire End Ferrule

<table>
<thead>
<tr>
<th>Wire Size Range</th>
<th>Number of Wires</th>
<th>Strip Length</th>
<th>12-position RTB</th>
<th>Recommended Wire End Ferrule</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25 mm² (18 AWG)</td>
<td>1</td>
<td>18±1 mm (0.71±0.03 in)</td>
<td>16±1 mm (0.63±0.03 in)</td>
<td>Ferrule with insulating collar, in accordance with DIN 47229-4 and UL 486F, Sleeve length: 12 mm (0.47 in)</td>
</tr>
<tr>
<td>0.35 mm² (16 AWG)</td>
<td>2</td>
<td>16±1 mm (0.63±0.03 in)</td>
<td>14±1 mm (0.55±0.03 in)</td>
<td>(1) TWBN wire and ferrules are not recommended for wiring.</td>
</tr>
</tbody>
</table>

ATTENTION: Do not wire more than 2 conductors on any single terminal.

Prepare the Wires

Install the Mounting Base

To install the mounting base on the DIN rail (Allen-Bradley part number 199-DR1; 46277-3; EN50022), proceed as follows.

ATTENTION: This product is grounded through the DIN rail to chassis ground. Use zinc-plated chromate-passivated steel DIN rail to assure proper grounding. The use of other DIN rail materials (for example, aluminum or plastic) that can corrode, oxidize, or are poor conductors, can result in improper or intermittent grounding. Secure DIN rail to mounting surface approximately every 400 mm (16 in.) and use end-anchors appropriately. Be sure to ground the DIN rail properly. See Industrial Automation Wiring and Grounding Guidelines, Rockwell Automation publication 1770-4.1, for more information.

1. Position the mounting base vertically above the installed units (adapter, power supply or existing module).
2. Slide the mounting base down allowing the interlocking side pieces to engage the adjacent module or adapter.
3. Press firmly to seat the mounting base on the DIN rail.

Install the Module

The module can be installed before or after base installation. Make sure that the mounting base is correctly keyed before installing the module into the mounting base. In addition, make sure that the mounting base locking screw is positioned horizontal referenced to the base.

1734-PIB

Turn the keyswitch to align the number with the notch. Notch position 3 is shown.

Be sure the DIN rail locking screw is in the horizontal position.

ATTENTION: Do not use a bladed screwdriver to rotate the keyswitch on the mounting base clockwise until the number required for the type of module you are installing aligns with the notch in the base.
2. Verify that the DIN rail locking screws is in the horizontal position.
3. Insert the module straight down into the mounting base and press to secure.

The module locks into place.

Wiring

About the Assembly

The POINT I/O wiring base assembly consists of a mounting base (4) and a removable terminal block (RTB)(3). 1734-TB3 uses screw-clamp termination; 1734-TB3S uses spring-clamp terminations.

Prepare the Wires

Wiring Without Wire End Ferrule

<table>
<thead>
<tr>
<th>Wire Size Range</th>
<th>Number of Wires</th>
<th>Strip Length</th>
<th>12-position RTB</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25…2.5 mm²</td>
<td>1</td>
<td>18±1 mm (0.71±0.03 in)</td>
<td>16±1 mm (0.63±0.03 in)</td>
</tr>
<tr>
<td>(18 AWG)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ATTENTION: Do not wire more than 2 conductors on any single terminal.

Wiring With Wire End Ferrule

<table>
<thead>
<tr>
<th>Wire Size Range</th>
<th>Number of Wires</th>
<th>Strip Length</th>
<th>12-position RTB</th>
<th>Recommended Wire End Ferrule</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25 mm² (18 AWG)</td>
<td>1</td>
<td>18±1 mm (0.71±0.03 in)</td>
<td>16±1 mm (0.63±0.03 in)</td>
<td>Ferrule with insulating collar, in accordance with DIN 47229-4 and UL 486F, Sleeve length: 12 mm (0.47 in)</td>
</tr>
<tr>
<td>0.35 mm² (16 AWG)</td>
<td>2</td>
<td>16±1 mm (0.63±0.03 in)</td>
<td>14±1 mm (0.55±0.03 in)</td>
<td>(1) TWBN wire and ferrules are not recommended for wiring.</td>
</tr>
</tbody>
</table>

ATTENTION: Do not wire more than 2 conductors on any single terminal.

Prepare the Wires

Install the Mounting Base

To install the mounting base on the DIN rail (Allen-Bradley part number 199-DR1; 46277-3; EN50022), proceed as follows.

ATTENTION: This product is grounded through the DIN rail to chassis ground. Use zinc-plated chromate-passivated steel DIN rail to assure proper grounding. The use of other DIN rail materials (for example, aluminum or plastic) that can corrode, oxidize, or are poor conductors, can result in improper or intermittent grounding. Secure DIN rail to mounting surface approximately every 400 mm (16 in.) and use end-anchors appropriately. Be sure to ground the DIN rail properly. See Industrial Automation Wiring and Grounding Guidelines, Rockwell Automation publication 1770-4.1, for more information.

1. Position the mounting base vertically above the installed units (adapter, power supply or existing module).
2. Slide the mounting base down allowing the interlocking side pieces to engage the adjacent module or adapter.
3. Press firmly to seat the mounting base on the DIN rail.

Install the Module

The module can be installed before or after base installation. Make sure that the mounting base is correctly keyed before installing the module into the mounting base. In addition, make sure that the mounting base locking screw is positioned horizontal referenced to the base.

1734-PIB

Turn the keyswitch to align the number with the notch. Notch position 3 is shown.

Be sure the DIN rail locking screw is in the horizontal position.

ATTENTION: Do not use a bladed screwdriver to rotate the keyswitch on the mounting base clockwise until the number required for the type of module you are installing aligns with the notch in the base.
2. Verify that the DIN rail locking screws is in the horizontal position.
3. Insert the module straight down into the mounting base and press to secure.

The module locks into place.
Install the Removable Terminal Block

A Removable Terminal Block (RTB) is supplied with your wiring base assembly. To remove, pull up on the RTB handle. This allows the mounting base to be removed and replaced as necessary without removing any wiring. To reinstall the removable terminal block, proceed as follows.

1. Insert the opposite handle into the base unit.
2. Pull on the RTB handle to remove the removable terminal block.
3. If an I/O module is installed, press the module lock on the top of the module and pull on the I/O module to remove from the base.
4. Repeat steps 1…3 for the module to the right.
5. Use a small bladed screwdriver to rotate the orange base locking screw to a vertical position.
6. Lift the mounting base straight up to remove.

WARNING: For 1734-RTB1S and 1734-RTB3S, to latch and unlatch the wire, insert a bladed screwdriver (catalog number 1492-N90 – 3 mm diameter blade) into the opening at approximately 75° (blade surface is parallel with top surface of the opening) and push up gently.

Remove a Mounting Base

To remove a mounting base, you must remove any installed module, and the module installed in the base to the right. Remove the removable terminal block (if wired)

ATTENTION: Do not remove or replace a Terminal Base unit while power is applied. Interruption of the backplane can result in unintentional operation or machine motion.

WARNING: Do not disconnect or replace component unless power is switched off or area is known to be nonhazardous. Do not pull on the installed wiring to remove a terminal base. A shock hazard exists if power is applied to the terminal base.

1. Unlatch the RTB handle on the I/O module.
2. Pull on the RTB handle to remove the removable terminal block.
3. Press the module lock on the top of the module and pull on the I/O module to remove from the base.
4. Repeat steps 1…3 for the module to the right.
5. Use a small bladed screwdriver to rotate the orange base locking screw to a vertical position.
6. Lift the mounting base straight up to remove.

Environmental Specifications

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature, operating</td>
<td>IEC 60068-2-1 (Test A, Operating Cold)</td>
</tr>
<tr>
<td>Temperature, nonoperating</td>
<td>IEC 60068-2-2 (Test B, Unpackaged Nonoperating Cold)</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>IEC 60068-2-1 (Test A, Unpackaged Nonoperating Cold)</td>
</tr>
<tr>
<td>Vibration</td>
<td>IEC 60068-2-6 (Test Fc, Operating): 5 g @ 10…500 Hz</td>
</tr>
<tr>
<td>Shock, operating</td>
<td>IEC 60068-2-27 (Test Fb, Unpackaged Nonoperating): 30 g</td>
</tr>
<tr>
<td>Shock, nonoperating</td>
<td>IEC 60068-2-27 (Test Fb, Unpackaged Nonoperating): 30 g</td>
</tr>
<tr>
<td>Certifications (1734-TB3S only) only</td>
<td></td>
</tr>
<tr>
<td>Certification</td>
<td>(when the product is marketed)(1)</td>
</tr>
<tr>
<td>e-UL-us</td>
<td>UL Recognized Component</td>
</tr>
<tr>
<td>CE</td>
<td>European Union 2004/108/EC (3), compliant with EN 61000-6-3, Industrial Immunity</td>
</tr>
<tr>
<td>RCM</td>
<td>Australian Communications Act, compliant with AS/NZS CISPR 11, Industrial Immunity</td>
</tr>
<tr>
<td>KC</td>
<td>Korean Registration of Broadcasting and Communications Equipment, compliant with Article 58-2 of Radio Waves Act, Clause 5</td>
</tr>
<tr>
<td>EAC</td>
<td>Russian Customs Union 17.30.001/001 EN, Technical Regulation</td>
</tr>
</tbody>
</table>

Waste Electrical and Electronic Equipment (WEEE)

At the end of life, this equipment should be collected separately from any unsorted municipal waste.

Rockwell Automation maintains current product environmental compliance information on its website at rock.auto/pec.

Your comments help us serve your documentation needs better. If you have any suggestions on how to improve our content, complete the form at rock.auto/docfeedback.

For technical support, visit rock.auto/support.

Connect with us. facebook Instagram twitter

rockwellautomation.com — expanding human possibility

AMERICAS: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2498 USA, Tel: (1) 414-382-2000, Fax: (1) 414-382-4444
EUROPE/MIDDLE EAST/AFRICA: Rockwell Automation NV, Pegasus Park, De Kleeflaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 663 0640
ASIA PACIFIC: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

Publication 1734-1N03D-EN-P – February 2021 | Supersedes Publication 1734-1N03C-EN-P– December 2018
Copyright © 2021 Rockwell Automation, Inc. All rights reserved. Printed in China.