

Installation Instructions

Original Instructions



Allen-Bradley

by ROCKWELL AUTOMATION

POINT I/O One-piece Terminal Bases

Catalog Numbers 1734-TOP, 1734-TOPS, 1734-TOP3, 1734-TOP3S

Summary of Changes

This publication contains the following new or updated information. This list includes substantive updates only and is not intended to reflect all changes.

Topic	Page
Updated Certifications	2
Added Additional Resources	2

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 these specific environmental conditions that will be present and appropriately designed to help prevent personal injury resulting from accessibility to live parts. The enclosure must have suitable flame-retardant properties to help prevent or minimize the spread of flame, complying with a flame spread rating of 5VA or be approved for the application if nonmetallic. 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 1770-4.3, for more installation requirements.
- NEMA Standard 250 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 connectors or pins on component boards.
- Do not touch circuit components inside the equipment.
- Use a static-safe workstation if available.
- Store the equipment in appropriate static-safe packaging when not in use.



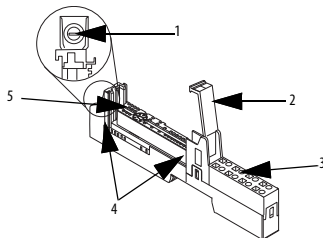
ATTENTION:

- If this equipment is used in a manner that is not specified by the manufacturer, the protection that is provided by the equipment may be impaired.
- Read this document and the documents that are 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.
- 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.
- 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.
- This equipment is certified for use only within the surrounding air temperature range of -20...+55 °C (-4...+131 °F). The equipment must not be used outside of this range.
- Use only a soft dry anti-static cloth to wipe down equipment. Do not use any cleaning agents.

About the Terminal Base

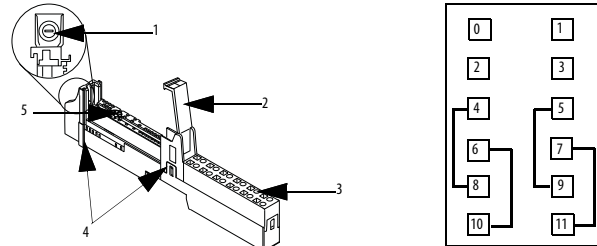
Read this publication for information about these POINT I/O™ terminal bases.

1734-TOP and 1734-TOPS



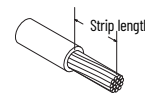
Description		Description	
1	DIN rail locking screw (orange)	4	Interlocking side pieces
2	Handle	5	Mechanical keying (orange)
3	Wiring block		

1734-TOP3 and 1734-TOP3S



Description		Description	
1	DIN rail locking screw (orange)	4	Interlocking side pieces
2	Handle	5	Mechanical keying (orange)
3	Wiring block		

Prepare the Wires



Wiring Without Wire End Ferrule

Wire Size Range	Number of Wires	Strip Length	
		8-position RTB	12-position RTB
0.25...2.5 mm ² (22...14 AWG)	1	16 ±1 mm (0.63 ±0.03 in)	14 ±1 mm (0.55 ±0.03 in)
	2	18 ±1 mm (0.71 ±0.03 in)	16 ±1 mm (0.63 ±0.03 in)

Wiring With Wire End Ferrule

Wire Size Range	Number of Wires	Strip Length		Recommended Wire End Ferrule ⁽¹⁾
		8-position RTB	12-position RTB	
0.75 mm ² (18 AWG)	1	16 ±1 mm (0.63 ±0.03 in)	14 ±1 mm (0.55 ±0.03 in)	Ferrule with insulating collar, in accordance with DIN 46228-4 and UL 486F. Sleeve length: 12 mm (0.47 in)
		18 ±1 mm (0.71 ±0.03 in)	16 ±1 mm (0.63 ±0.03 in)	

(1) TWIN wire end ferrules are not recommended for wiring.

Install the Terminal Base



ATTENTION: This product is grounded through the DIN rail to chassis ground. Use zinc-plated chromate-passivated steel DIN rail to achieve 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 the DIN rail to a mounting surface approximately every 200 mm (7.8 in.) and use end-anchors appropriately. Be sure to ground the DIN rail properly. See Industrial Automation Wiring and Grounding Guidelines, Rockwell Automation publication 1770-4.3, for more information.

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

- Position the base vertically above the installed units, such as an adapter, power supply, or existing module.
- Slide the base down, allowing the interlocking side pieces to engage the adjacent installed unit.
- Press firmly to seat the base on the DIN rail until the base snaps into place.
- Verify that the DIN rail locking screw is in a horizontal, locked position before inserting an I/O module.



DIN rail locking screw is in horizontal, locked position.



DIN rail locking screw is in vertical, unlocked position.



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

Remove a Terminal Base



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: For 1734-TOPS and 1734-TOP3S, to latch and unlatch the wire, insert a bladed screwdriver (catalog number 1492-N90 - 3 mm diameter blade) into the opening at approximately 97° (blade surface is parallel with the top surface of the opening) and push up gently.



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.

To remove a terminal base from the DIN rail, you must remove the module that is installed to the right of the base, proceeding as follows.

1. Squeeze the module locking mechanism of the module to the right of the base, and pull up to remove the module.
2. Turn the orange locking screw to a vertical position to unlock the base from the DIN rail.
3. Slide the base up to release it from its mating units.

Specifications

General Specifications

Attribute	Value
Dimensions (HxWxD) approx.	49 x 12 x 144 mm (1.93 x 0.47 x 5.67 in.) – 1734-TOP, 1734-TOPS 49 x 12 x 168 mm (1.93 x 0.47 x 6.61 in.) – 1734-TOP3, 1734-TOP3S
Weight, approx.	63.8 g (2.25 oz) – 1734-TOP ; 79.2 g (2.79 oz) – 1734-TOP3 55.68 g (1.96 oz) – 1734-TOPS ; 66.8 g (2.36 oz) – 1734-TOP3S
Wire category ^{(1) (2)}	Dependent on I/O module installed in terminal base
Wire size	0.25...2.5 mm ² (22...14 AWG) solid or stranded copper wire that is rated at 75 °C (167 °F), or greater, 1.2 mm (3/64 in.) insulation max
Field power bus supply voltage	28.8V DC, 120/240V AC
Field power bus supply current, max	10 A
Signal terminal voltage	28.8V DC, 120/240V AC
Signal terminal current	2 A
Isolation voltage	Capable of 240V (continuous), Reinforced Insulation Type, or the lesser of the installed module.
Enclosure type rating	None (open-style)
Terminal base screw torque	0.4 N-m (3.5 lb-in) – 1734-TOP and 1734-TOP3 only

(1) Use this conductor category information for planning conductor routing as described in Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).

(2) Use this Conductor Category information for planning conductor routing as described in the appropriate System Level Installation Manual.

Environmental Specifications

Attribute	Value
Temperature, operating	IEC 60068-2-11 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock): -20 °C ≤ Ta ≤ +55 °C (-4 °F ≤ Ta ≤ +131 °F)
Temperature, surrounding air max	55 °C (131 °F)
Temperature, nonoperating	IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold), IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat), IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock): -40...+85 °C (-40...+185 °F)
Relative humidity	IEC 60068-2-30 (Test Db, Unpackaged Damp Heat): 5...95% noncondensing

Environmental Specifications

Attribute	Value
Vibration	IEC 60068-2-6 (Test Fc, Operating): 5 g @ 10...500 Hz
Shock, operating	IEC 60068-2-27 (Test Ea, Unpackaged Shock): 30 g
Shock, nonoperating	IEC 60068-2-27 (Test Ea, Unpackaged Shock): 50 g

Certifications

Certification (when the product is marked) ⁽¹⁾	Value
c-UL-us	UL Recognized Component Industrial Control Equipment, certified for US and Canada. See UL File E65584.
CE	European Union 2014/30/EU EMC Directive, compliant with: EN 6131-2; Programmable Controllers (Clause 8, Zone A & B) EN 61326-1; Meas./Control/Lab., Industrial Requirements EN 61000-6-2; Industrial Immunity EN 61000-6-4; Industrial Emissions European Union 2014/35/EU LVD, compliant with: EN 6131-2; Programmable Controllers (Clause 11) European Union 2011/65/EU RoHS, compliant with: EN IEC 63000; Technical Documentation
RCM	Australian Radiocommunications Act, compliant with: AS/NZS CISPR 11; Industrial Emissions
KC	Korean Registration of Broadcasting and Communications Equipment, compliant with: Article 58-2 of Radio Waves Act, Clause 3
Morocco	Arrêté ministériel n° 6404-15 du 1 er muharram 1437 Arrêté ministériel n° 6404-15 du 29 ramadan 1436
UKCA	2016 No. 1091 – Electromagnetic Compatibility Regulations 2016 No. 1101 – Electrical Equipment (Safety) Regulations 2012 No. 3032 – Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations

(1) See the Product Certification link at [rok.auto/certifications](#) for Declarations of Conformity, Certificates, and other certification details.

Additional Resources

For more information on the products that are described in this publication, use these resources. You can view or download publications at [rok.auto/literature](#).

Resource	Description
POINT I/O Modules Selection Guide, publication 1734-SG001	Provides information on how to select POINT I/O adapters, terminal bases, I/O modules, and accessories.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	More information on proper wiring and grounding techniques.

Rockwell Automation Support

Use these resources to access support information.

Technical Support Center	Find help with how-to videos, FAQs, chat, user forums, Knowledgebase, and product notification updates.	rok.auto/support
Local Technical Support Phone Numbers	Locate the telephone number for your country.	rok.auto/phonesupport
Technical Documentation Center	Quickly access and download technical specifications, installation instructions, and user manuals.	rok.auto/techdocs
Literature Library	Find installation instructions, manuals, brochures, and technical data publications.	rok.auto/literature
Product Compatibility and Download Center (PCDC)	Download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes.	rok.auto/pcdc

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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 [rok.auto/pec](#).

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