MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

ALLEN-BRADLEY

1734-OW4

FOUR CHANNEL RELAY OUTPUT MODULE

Used with the applicable POINT I/O Relay Output configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Rockwell Automation 1734-IN055M, August 2026

Installation Instructions

Original Instructions

Allen-Bradley
by ROCKWELL AUTOMATION

POINT I/O 2 and 4 Relay Output Modules

Catalog Numbers 1734-OW2, 1734-OW4, 1734-OW4K, series D

Catalog numbers with the suffix 'K' are conformal coated and their specifications are the same as non-conformal coated catalogs.

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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 module series from series C to series D	1 and 5
Updated supply voltage range in 1734-OW2 wiring diagram	9
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Rockwell Automation

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 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 1770-4.1, for more installation requirements.
- NEMA Standard 250 and EN/IEC 60529, as applicable, for explanations of the degrees of protection provided by enclosures.

Preventing 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.

North American Hazardous Location Approval

The following information applies when operating this equipment in hazardous locations:	**Informations sur l'utilisation de cet équipement en environnements dangereux:**
Products marked "CL I, DIV 2, GP A, B, C, D" are suitable for use in Class I Division 2 Groups A, B, C, D, Hazardous Locations and nonhazardous locations only. Each product is supplied with markings on the rating nameplate indicating the hazardous location temperature code. When combining products within a system, the most adverse temperature code (lowest "T" number) may be used to help determine the overall temperature code of the system. Combinations of equipment in your system are subject to investigation by the local Authority Having Jurisdiction at the time of installation.	Les produits marqués "CL I, DIV 2, GP A, B, C, D" ne conviennent qu'à une utilisation en environnements de Classe I Division 2 Groupes A, B, C, D dangereux et non dangereux. Chaque produit est livré avec des marquages sur sa plaque d'identification qui indiquent le code de température pour les environnements dangereux. Lorsque plusieurs produits sont combinés dans un système, le code de température le plus défavorable (code de température le plus faible) peut être utilisé pour déterminer le code de température global du système. Les combinaisons d'équipements dans le système sont sujettes à inspection par les autorités locales qualifiées au moment de l'installation.
EXPLOSION HAZARD • Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous. • Do not disconnect connections to this equipment unless power has been removed or the area is known to be nonhazardous. Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product. • Substitution of components may impair suitability for Class I Division 2.	**RISQUE D'EXPLOSION** • Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher l'équipement. • Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher les connecteurs. Fixer tous les connecteurs externes reliés à cet équipement à l'aide de vis, loquets coulissants, connecteurs filetés ou autres moyens fournis avec ce produit. • La substitution de composants peut rendre cet équipement inadapté à une utilisation en environnement de Classe I Division 2.

IEC Hazardous Location Approval

The following applies to products with IECEx certification:

- Are intended for use in areas in which explosive atmospheres caused by gases, vapors, mists, or air are unlikely to occur, or are likely to occur only infrequently and for short periods. Such locations correspond to Zone 2 classification to IEC 60079-0.
- The type of protection is Ex ec nC IIC T4 Gc according to IEC 60079-0, IEC 60079-15, and IEC 60079-7.
- Comply with Standards IEC 60079-0, Explosive atmospheres - Part 0: Equipment - General requirements, Edition 7, Revision Date 2017, IEC 60079-15, ELECTRICAL APPARATUS FOR EXPLOSIVE GAS ATMOSPHERES - PART 15: CONSTRUCTION, TEST AND MARKING OF TYPE OF PROTECTION "N", Edition 5, Issue Date 12/2017, and IEC 60079-7, 5.1 Edition revision date 2017, Explosive atmospheres - Part 7: Equipment protection by increased safety "e", reference IECEx certificate number IECEx UL 20.0072X.
- May have catalog numbers followed by a "K" to indicate a conformal coating option.

Interpret Status Indicators

See Figure 3 and Table 1 for information on how to interpret the status indicators.

Figure 3 - Status Indicators for POINT I/O 2 and 4 Relay Output Modules

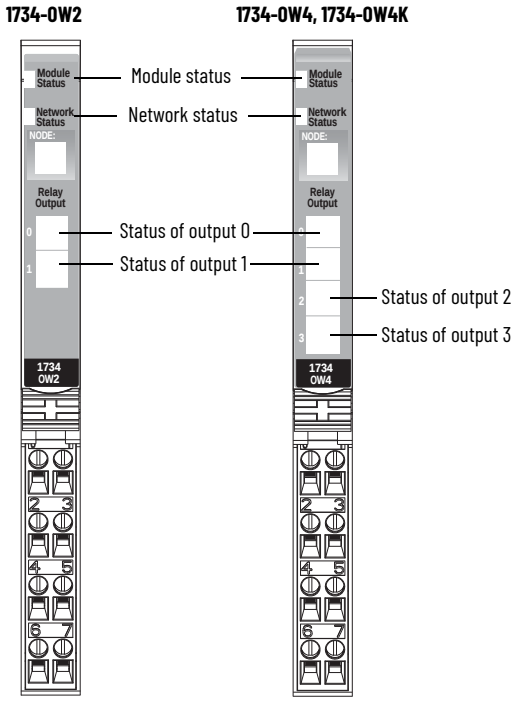


Table 1 - Indicator Status for Modules

	Status	Description
Module status	Off	No power is applied to the device.
	Flashing green	The device needs commissioning due to missing, incomplete, or incorrect configuration.
	Green	The device is operating normally.
	Flashing red	A recoverable fault is present. The device did not pass the internal test.
	Red	Unrecoverable fault. Self-test failure is present (checksum failure or ram test failure at cycle power). Firmware fatal error is present.
	Flashing red/green	The device is in self-test mode.
Network status	Off	The device is not online: • The device has not completed Autobaud detection because there is no network traffic. • The device has not completed the dup_MAC-id test. • The device is not powered – Check the module status indicator.
	Flashing green	The device is online but has no connections in the established state.
	Green	The device is online and has connections in the established state.
	Flashing red	One or more I/O connections are in a timed-out state.
	Red	Critical link failure – Failed communication device. The device has detected an error that prevents it from communicating on the network.
	Flashing red/green	Communication faulted device – The device has detected a network access error and is in a communication faulted state. The device has received and accepted an Identity Communication Faulted Request – Long protocol message.
I/O status	Off	The outputs are off.
	Yellow	The outputs are on.

Specifications

General Specifications

Attribute	Value
Outputs per module	2 Form A isolated (normally open) electromechanical relays – **1734-OW2** 4 Form A isolated (normally open) electromechanical relays – **1734-OW4, 1734-OW4K**
Off-state leakage current	0 mA Dry contact, no onboard snubbers
Module location	1734-TB, 1734-TBS, 1734-TOP, 1734-TOPS wiring base assembly
Terminal base screw torque	Determined by the installed terminal block.
Power consumption	0.8 W
Power dissipation, max	0.5 W
Backplane power	5V DC, 80 mA – **1734-OW2** 5V DC, 90 mA – **1734-OW4, 1734-OW4K**
Contact rating[1]	120/240V AC, 2.0 A @ 50/60 Hz[2] 1800VA make, 180VA break[3] 5…30V DC, 2.0 A, R150
Initial contact resistance, max	30 mΩ
Isolation voltage	250V, tested @ 2550V DC for 60 s, field-side to system, and between contact sets
Switching frequency, max	1 operation/3 s (0.3 Hz @ rated load)
Expected life of electrical contacts, min	100,000 operations @ rated load
Dimensions (HxWxD), approx.	56.6 x 12.1 x 77.5 mm (2.23 x 0.48 x 3.05 in.)
Weight, approx.	36.4 g (1.28 oz) – **1734-OW2** 42.5 g (1.49 oz) – **1734-OW4, 1734-OW4K**
Wiring category[4][5]	1 – on signal ports
Wire size	0.25…2.5 mm^2 (22…14 AWG) solid or stranded copper wire rated at 85 °C (185 °F), or greater, 1.2 mm (3/64 in.) insulation max
Enclosure type rating	None (open-style)
Pilot duty rating	R150
North American temp code	T4A
UKEX/ATEX temp code	T4
IECEx temp code	T4

(1) **Surge Suppression** – Connecting surge suppressors across your external inductive load will extend the life of the module. For additional details, see the Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1.
(2) The module complies with Ex when used at or below 120V AC.
(3) For maximum rating at voltages between the maximum design value and 120V, the maximum make and break ratings are to be obtained by dividing the voltamperes rating by the application voltage. For voltages below 120V, the maximum make current is to be the same as for 120V, and the maximum break current is to be obtained by dividing the break voltamperes by the application voltage, but these currents are not to exceed 2 A.
(4) Use this conductor category information for planning conductor routing as described in Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1.
(5) 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 60068-2-1 (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
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
Emissions	IEC 61000-6-4
ESD immunity	IEC 61000-4-2: 6 kV contact discharges 8 kV air discharges
Radiated RF immunity	IEC 61000-4-3: 10V/m with 1 kHz sine-wave 80% AM from 80…6000 MHz

Environmental Specifications

Attribute	Value
EFT/B immunity	IEC 61000-4-4: ±4 kV @ 2.5 kHz on signal ports ±4 kV @ 5 kHz on signal ports
Surge transient immunity	IEC 61000-4-5: ±1 kV line-line (DM) and ±2 kV line-earth (CM) on signal ports
Conducted RF immunity	IEC 61000-4-6: 10V rms with 1 kHz sine-wave 80% AM @ 150 kHz...80 MHz
North American temp code	T4A
UKEX/ATEX temp code	T4
IECEx temp code	T4

Certifications

Certification (when product is marked)[1]	Value
c-UL-us	UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E65584. UL Listed for Class I Division 2 Group A,B,C,D Hazardous Locations, certified for U.S. and Canada. See UL File E194810.
UK and CE	UK Statutory Instrument 2016 No. 1091 and European Union 2014/30/EU EMC Directive, compliant with: EN 61326-1; Meas./Control/Lab., Industrial Requirements EN 61000-6-2; Industrial Immunity EN 61000-6-4; Industrial Emissions EN 61131-2; Programmable Controllers (Clause 8, Zone A & B) UK Statutory Instrument 2016 No. 1101 and European Union 2014/35/EU LVD, compliant with: EN 61131-2; Programmable Controllers (Clause 11) UK Statutory Instrument 2012 No. 3032 and European Union 2011/65/EU RoHS, compliant with: EN IEC 63000; Technical documentation
RCM	Australian Radiocommunications Act, compliant with: EN 61000-6-4; Industrial Emissions
Ex	UK Statutory Instrument 2016 No. 1107 and European Union 2014/34/EU ATEX Directive, compliant with: EN IEC 60079-0; General Requirements EN IEC 60079-15; Potentially Explosive Atmospheres, Protection "n" EN IEC 60079-7; Explosive Atmospheres, Protection "e" II 3 G Ex ec nC IIC T4 Gc DEMKO 04 ATEX 0330347X UL22UKEX2478X
IECEx	IECEx System, compliant with: IEC 60079-0; General Requirements IEC 60079-15; Potentially Explosive Atmospheres, Protection "n" IEC 60079-7; Explosive Atmospheres, Protection "e" II 3 G Ex ec nC IIC T4 Gc IECEx UL 20.0072X
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
CCC	CNCA-C23-01 强制性产品认证实施规则 防爆电气 CNCA-C23-01 CCC Implementation Rule Explosion-Proof Electrical Products CCC: 2020122309111607

(1) See the Product Certification link at rok.auto/certifications for Declaration 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.
POINT I/O Digital and Analog Modules and POINTBlock I/O Modules User Manual, publication 1734-UM001	A detailed description of module functionality, configuration, and information on how to use the POINT I/O digital and analog modules.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	More information on proper wiring and grounding techniques.
Product Certifications website, rok.auto/certifications	Provides declarations of conformity, certificates, and other certification details.