

TYPE EXAMINATION CERTIFICATE



Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

- [3] Type Examination Certificate Number: **DEMKO 04 ATEX 0330347X Rev. 17**
- [4] Product: **Programmable Industrial Controllers I/O Modules – 1734 Series**
- [5] Manufacturer: **Rockwell Automation**
- [6] Manufacturer Address: **1201 South 2nd Street, Milwaukee, WI 53204 USA**
- [7] This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] UL International Demko A/S certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.
- The examination and test results are recorded in confidential report no **US/UL/ExTR20.0074/01**.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 EN IEC 60079-7:2015+A1:2018
EN 60079-15:2010

except in respect of those requirements listed at item 18 of the Schedule.

- [10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
- [11] This Type examination certificate relates only to the design of the specified product, and not to specific items of product subsequently manufactured.
- [12] The marking of the product shall include the following:

 **II 3 G Ex nA IIC T4 Gc (all models except for 1734-OW2, 1734-OW4, 1734-IE2C/IE2CK and 1734-IE2V/IE2VK)**

 **II 3 G Ex nA nC IIC T4 Gc (only for 1734-OW2 and 1734-OW4)**

 **II 3 G Ex ec IIC T4 Gc (only for models 1734-IE2C/IE2CK and 1734-IE2V/IE2VK)**

Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2004-02-17

Re-issued: 2021-07-26

Certification Body

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Description of Product:

These devices are open-type programmable controllers for use in industrial applications. Model 1734-IA2 is a two-channel point input module, while Model 1734-IA4 is a four-channel point input module. Model 1734-OA2 is a two-channel point output module, while Model 1734-OA4 is a four-channel point output module. Model 1734-OW2 is a two-point relay output module. Model 1734-AENTR is an Ethernet adapter that provides connectivity to an Ethernet/IP network with two RJ45 connectors. Model 1734-IE4C is a four-channel analog current input module. Model 1734-IE8C is an eight-channel analog current input module.

Model 1734-OE4C is a four-channel current output module.

Model 1734-IB8 is an eight-channel point sink input module. Model 1734-OB8 is an eight-channel point output module. Model 1734-OB8E is an eight-channel point output module with diagnostic capability. Model 1734-OW4 is a four-point relay output module. Model 1734-AENT is a communications adapter that provides an interface for controlling and communicating with point input/output modules from an Ethernet network. Model 1734-IJ is an encoder/counter with three 5 VDC inputs. Model 1734-IK is an encoder/counter with three 24 VDC inputs.

Model 1734-SSI is a 24 VDC 8-point thermocouple/RTD module. Model 1734-VHSC5 is a high-speed counter module with three 5 VDC inputs and two outputs. Model 1734-VHSC24 is a high-speed counter module with three 24 VDC inputs and two outputs

Most of these devices plug into accessory bases that utilize terminal blocks for electrical connection. The bases are then din-rail mounted. The accessories can be utilized with any of the I/O devices described below. The mounting base 1734-MB maybe used with these devices.

The optical radiation output of the indicator LEDs of the devices with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is covered in this certificate based on Exception 1) to the scope of EN 60079-28:2015.

The devices consist of the following modules:

Module	Protection Method	Description	Electrical Ratings
1734-ACNR	nA	Control Net Adapter	Input Requirements: 24Vdc, 425mA; Pointbus Output: 5Vdc, 1A; User Power: 24Vdc, 10A
1734-ADN	nA	I/O Adapter	Dnet Power: 24Vdc, 50mA; Output: 5Vdc, 1A; User Power: 24Vdc, 10A
1734-AENT	nA	Ethernet Adapter	Field power supply: 24Vdc, 10A max.; Filed Output: 24Vdc, 9A max.; Module Input: 24Vdc, 1000mA; Pointbus Output: 5Vdc, 1A max;
1734-EP24DC	nA	Expansion I/O Adapter	Input Requirements: 24Vdc, 400mA/12Vdc, 800mA; Pointbus Output: 5Vdc, 1.3A; Field Power: 24Vdc/12Vdc, 10A
1734-FPD	nA	I/O Adapter	User Power: 10A, 24V dc, 120 Vac 50/60 Hz
1734-IB2	nA	2 Point Sink Input	Backplane: 5Vdc, 75 mA; Input: 24Vdc, 5mA
1734-IB4	nA	4 Point Sink Input	Backplane: 5Vdc, 75 mA; Input: 24Vdc, 5mA
1734-IE2C	ec	2 Point Analog current input	Input: 0 to 20 mA; Supply: 24 Vdc, 10 mA; Backplane: 5Vdc, 75 mA
1734-IE2V	ec	2 Point voltage input	Input: -10 to +10Vdc; Supply: 24 Vdc, 15 mA; Backplane: 5Vdc, 75 mA
1734-IJ	nA	Encoder/ Counter with three 5Vdc inputs	Backplane: 5Vdc, 160mA; Input: 5Vdc, 19.1mA
1734-IK	nA	Encoder/ Counter with three 24Vdc inputs	Backplane: 5Vdc, 160mA; Input: 24Vdc, 10.2mA
1734-IR2	nA	2 Point RTD Input	Backplane: 5Vdc, 220mA. Input: 0-600 ohms RTD Types: Pt 100 & 200 Ohm Ni 100 & 120 Ohm, Cu 10 Ohm
1734-IT2I	nA	2 Point Isolated Thermocouple Input module	Backplane: 5Vdc, 175mA. Input: ± 75mVdc.
1734-IV2	nA	2 Point Source Input	Backplane: 5Vdc, 75 mA; Input: 24Vdc, 5mA.
1734-IV4	nA	4 Point Source Input	Backplane: 5Vdc, 75 mA; Input: 24Vdc, 5mA.
1734-OB2E	nA	24Vdc, 2 Point Output module	Output: 24 Vdc, 1.0A, Pilot Duty; Backplane: 5Vdc, 75mA;
1734-OB4E	nA	24Vdc, 4 Point Output module	Output: 24 Vdc, 1.0A, Pilot Duty; Backplane: 5Vdc, 75mA;



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Module	Protection Method	Description	Electrical Ratings
1734-OE2C	nA	2 Point Analog current output	Output: 4-20 mA, 0-20 mA; Nominal Supply: 24 Vdc, 70 mA; Supply Range: 10-28.8Vdc Backplane: 5Vdc, 75 mA;
1734-OE2V	nA	2 Point Analog voltage output	Output: 0 to +10V dc, 3mA Output: -10 to +10Vdc, 3mA Supply: 24 Vdc, 35 mA; Backplane: 5Vdc, 75 mA;
1734-PDN	nA	I/O Adapter	DNet Power: 24V dc, 400 mA, Class 2; Output: 1.3A, 5 V dc; User Power: 24Vdc, 120/240 Vac 50/60Hz, 10A,
1734-SSI	nA	24Vdc, 8 Point Thermocouple/RTD Module	Backplane: 110mA, 5Vdc; Field: 450mA, 10- 28.8Vdc; Ssi Sensor Power: 450mA, 10-28.8Vdc.
1734-VHSC24	nA	High Speed Counter with three 24Vdc inputs and two outputs.	Backplane: 5Vdc, 180mA; Input: 24Vdc, 10.2mA; Output: 24Vdc, 0.5A, Pilot Duty;
1734-VHSC5	nA	High Speed Counter with three 5Vdc inputs and two outputs.	Backplane: 5Vdc, 180mA; Input: 5Vdc, 19.1mA; Output: 24Vdc, 0.5A, Pilot Duty;
1734-IA2	nA	Two-channel point input	Backplane: 5 Vdc, 75 mA Input: 120 Vac, 10 mA, 50/60 Hz
1734-IA4	nA	Four-channel point input	Backplane: 5 Vdc, 75 mA Input: 120 Vac, 10 mA, 50/60 Hz
1734-OA2	nA	Two-channel point output	Backplane: 5 Vdc, 75 mA Output: 120 Vac, 50/60 Hz 0.75 A maximum per channel, pilot duty 1.5 A maximum per Module at 45°C 1.3 A maximum per Module at 55°C
1734-OA4	nA	Four-channel point output	Backplane: 5 Vdc, 75 mA Output: 120 Vac, 50/60 Hz 0.75 A maximum per channel, pilot duty 2.0 A maximum per Module at 45°C 1.4 A maximum per Module at 55°C
1734-OW2	nA nC	Two Point Relay output	Backplane: 5Vdc, 80mA; Contact: 5-30 Vdc, 2 A, Resistive; R150. 120 Vac, 50/60 Hz, 1800VA make, 180VA break.
1734-AENTR	nA	Ethernet Adapter	Field Power Supply: 10-28.8 Vdc, 10A max Field Power Output: 10-28.8Vdc, 9A max. Module Input: 10-28.8Vdc, 1000mA Pointbus Output: 5Vdc 0.8A max.
1734-IE4C	nA	Four-channel analog current input module	Field Power Supply: 10-28.8Vdc, 20mA, Class 2 Input: 4-20mA or 0-20mA Pointbus Output: 5Vdc, 75mA
1734-IE8C	nA	Eight-channel analog current input module	Field Power Supply: 10-28.8Vdc, 30mA, Class 2 Input: 4-20mA or 0-20mA Pointbus Output: 5Vdc, 75mA
1734-OE4C	nA	Four-channel current output module	Field Power Supply: 10-28.8Vdc, 220mA, Class 2 Output: 4-20mA or 0-20mA Pointbus Output: 5Vdc, 75mA
1734-IB8	nA	Eight Point Sink Input	Backplane: 5 Vdc, 75 mA Input: 24 Vdc, 5 mA
1734-OB8	nA	24Vdc, Eight Point Output module	Output: 24 Vdc, 1.0 A, Pilot Duty Backplane: 5 Vdc, 75 mA
1734-OB8E	nA	24Vdc, Eight Point Output module with diagnostic	Output: 24 Vdc, 1.0 A, Pilot Duty Backplane: 5 Vdc, 75 mA
1734-OW4	nA nC	Four Point Relay Output	Backplane: 5 Vdc, 90 mA; Contact: 5-30 Vdc, 2 A, Resistive; R150. 120 Vac, 50/60 Hz, 1800VA make, 180VA break.

Models with suffix 'K' to indicate conformal coating, all other construction and details are same as models without suffix 'K', as shown above.



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Accessories:

Module	Description
1734-TB	8-Termination, Mounting base + Removable screw type terminal
1734-TBS	8-Termination, Mounting base + Removable spring type terminal
1734-TB3	12-Termination, Mounting base + Removable screw type terminal
1734-TB3S	12-Termination, Mounting base + Removable spring type terminal
1734-RTB	8-Termination, Removable screw type terminal
1734-RTBS	8-Termination, Removable spring type terminal
1734-RTB3	12-Termination, Removable screw type terminal
1734-RTB3S	12-Termination, Removable spring type terminal
1734-TOP	8-Termination, Mounting base + terminal block screw type
1734-TOP3	8-Termination, Mounting base + terminal block spring type
1734-TOPS	12-Termination, Mounting base + terminal block screw type
1734-TOP3S	12-Termination, Mounting base + terminal block spring type
1734-TBCJC	5-termination, Mounting base + removable screw type terminal
1734-RTBCJC	5-termination, Removable screw type terminal

Temperature range

The relation between ambient temperature and the assigned temperature class is as follows:

Ambient temperature range
 -20 °C to +55 °C

Temperature class
 T4

Electrical data

The modules are provided with the electrical ratings shown in Table I.

Routine tests

No routine tests are necessary.

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Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this Type Examination Certificate.

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Special Conditions of Use:

- The equipment shall be mounted in an ATEX certified enclosure with a minimum ingress protection rating of at least IP54 (as defined in EN 60529) and used in an environment of not more than Pollution Degree 2 (as defined in EN 60664-1) when applied in Zone 2 environments. The enclosure must utilize a tool removable cover or door.
- Provisions shall be made to prevent the rated voltage from being exceeded by transient disturbances of more than 140%.

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Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information

The trademark **Allen-Bradley** will be used as company identifier on the marking label.

