

# TYPE EXAMINATION CERTIFICATE



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

Type Examination Certificate Number: **DEMKO 07 ATEX 0626664X Rev. 12**

Product: **Process Control and Measurement Equipment, Compact RIO Modules and Chassis Types cRIO and NI Series**

Manufacturer: **National Instruments Corporation**

Address: **11500 N. Mopac Expressway, Austin, TX 78759 USA**

This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

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. **4789263994.6.1**

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 60079-0:2012+A11:2013**

**EN 60079-15:2010**

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

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.

This Type examination certificate relates only to the design of the specified product, and not to specific items of product subsequently manufactured.

The marking of the product shall include the following:

**Ex II 3 G Ex nA IIC T4 Gc**

**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:** 2007-07-02

**Re-issued:** 2020-02-12

**Certification Body**

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# Schedule

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Description of Product

The NI 9264, NI 9234, cRIO-9802, NI9403 with DSUB, NI 9074, NI 9229, NI 9239, cRIO-9229 with BNC, cRIO-9239 with BNC, NI 9375, NI 9235, NI 9236, NI 9402, NI 9478 with DSUB, NI 9870, NI 9871, NI 9426 w/ DSUB, NI 9475 w/ DSUB, NI 9213, NI 9263, NI 9237 w/ DSUB, NI 9219, NI 9512, NI 9514, NI 9516, NI 9073, NI 9144, NI 9022, cRIO-9111, cRIO-9112, cRIO-9113, cRIO-9114, cRIO-9116, cRIO-9118, cRIO-9269, NI 9157, NI 9159, NI 9208 w/ DSUB, NI 9207 w/ DSUB, cRIO-9023, cRIO-9024, NI 9505, NI 9264 w/ DSUB, NI 9237, NI 9148, NI 9025, cRIO-9792, cRIO-9792 WSN, NI 9375 with DSUB, NI 9214, NI 9214 with TB-9214 (to be used with 9214 only), NI 9222, NI 9223, cRIO-9501, cRIO-WSN-3202, cRIO-WSN-3212, cRIO-WSN-3226, cRIO-WSN-9791, cRIO-9075, NI FRC II, cRIO-9076, cRIO-9146, cRIO-9467, NI 9502, NI 9862, NI 9861, NI 9866, NI 9881, NI 9882, cRIO-9081, cRIO-9082, cRIO-WSN-3230, cRIO-WSN-3231, cRIO-WSN-3214, NI 9469, NI 9232, and cRIO-9795 are measurement modules for industrial process applications and are covered under Certificate No. DEMKO 07 ATEX 0626664X. The Input/output modules are intended to be connected to a chassis. The controller is intended to receive power from a SELV source. The models may be referenced as XXXX or NI XXXX or cRIO-XXXX or NI cRIO-XXXX or cRIO-WSN-XXXX, where XXXX represents the model number. References to cRIO-XXXX represent XXXX, NI XXXX, and NI cRIO-XXXX.

Models NI 9073 and eCAT-9144 (NI 9144) consist of a combination active chassis with an integrated controller and should be supplied from a source complying with Limited Energy Requirements.

The optical radiation output of the apparatus with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is not covered in this certificate.

Temperature range:

The ambient temperature range is -40 °C to +70 °C for all models except for the NI 9157, NI 9159, cRIO-9024, NI 9022, NI 9073, NI 9074, cRIO-9081, NI FRC II, and cRIO-9082.

The ambient temperature range for cRIO-9022, cRIO-9024, cRIO-9073, NI FRC II, and cRIO-9074 is -20 °C to +55 °C.

The ambient temperature range for NI 9157 and, NI 9159 are 0 °C to +55 °C, cRIO-9081, and cRIO-9082 are 0°C to +45 °C and cRIO-9081 and cRIO-9082 are also rated for 0°C to 55°C with metal mounting plate.

The temperature class and Ex marking are listed in Table.

Electrical data

Model No.	Module Type	Electrical Ratings	Temperature Ratings	Ex Marking
9264	16-Channel, $\pm 10$ V, 16-Bit Analog Voltage Output Module	$\pm 10$ V Working Voltage 10 V CAT I Channel to COM	T4 @ 70 °C Ambient	nA
9234	4-Channel, $\pm 5$ V, 24-Bit IEPE Analog Input Module	$\pm 5$ V Working Voltage	T4 @ 70 °C Ambient	nA
9802	2-slot SD Card Memory Module	N/A	T4 @ 70 °C Ambient	nA
9403 with DSUB	32-Channel, $\pm 5$ V, 32-Bit, TTL Digital Input/Output Module	5 Vdc Working Voltage 60 Vdc CAT I Channel to Earth	T4 @ 70 °C Ambient	nA
9074	Controller w/ Backplane chassis	19-30 Vdc, 20 W max input	T4 @ 55 °C Ambient	nA
9375	32 CH DIO	30 V dc DIO to COM	T4 @ 70 °C Ambient	nA
9235 9236	8 CH Analog Input Module	+/- 30 Vdc Working Voltage, 60 Vdc CAT I Channel to Ground	T4 @ 70 °C Ambient	nA
9402	4 CH Digital Input/Output Module	LVTTTL Input/Output	T4 @ 70 °C Ambient	nA
9478 w/DSUB	16 CH Sinking Digital Output	50 V dc, 1.2 A Max	T4 @ 70 °C Ambient	nA
9871	4 Port RS485 Serial Module	Communication	T4 @ 70 °C Ambient	nA
9870	4 Port RS485 Serial Module	Communication	T4 @ 70 °C Ambient	nA



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Model No.	Module Type	Electrical Ratings	Temperature Ratings	Ex Marking
9239, 9239 w/ BNC	±10 V, 4 CH, Analog Input	10 Vdc	T4 @ 70 °C Ambient	nA
9229, CRIO-9229 w/ BNC	±60 V, 4 CH, Analog Input	60 Vdc	T4 @ 70 °C Ambient	nA
9426 w/ DSUB	32 CH Digital Input	30 V dc	T4 @ 70 °C Ambient	nA
9475 w/ DSUB	8 CH Sourcing Digital Output	60 V dc	T4 @ 70 °C Ambient	nA
9213	16 CH Thermocouple Analog Input	±78 mV	T4 @ 70 °C Ambient	nA
9263	4 CH Analog Voltage Output Module	±10.7 V dc	T4 @ 70 °C Ambient	nA
9237 w/ DSUB	4 CH 24-Bit Half/Full Bridge Analog Input Module Vdc AI Bridge.	±30 Vdc AI Bridge	T4 @ 70 °C Ambient	nA
9219	4 CH Universal AI	60 Vdc CAT I Channel to Earth / Channel to Ground	T4 @ 70 °C Ambient	nA
9073	Controller w/ Backplane chassis	19-30 Vdc, 20 Watts	T4 @ 55 °C Ambient	nA
9512, 9514, 9516	Controller	60 Vdc CAT I Channel to Earth	T4 @ 70 °C Ambient	nA
eCAT-9144 9144	Controller	9-30 Vdc, 20 Watts	T4 @ 70 °C Ambient	nA
9022	Controller	9-35 Vdc, 35 Watts	T4 @ 55 °C Ambient	nA
9111, 9112, 9113, 9114, 9116, 9118	Backplane chassis	Fed by cRIO-9022 controller	T4 @ 70 °C Ambient	nA
9269	4-Channel, ±10V, 16-Bit, Simultaneous, Channel-to-Channel Isolated Analog Voltage Output Module	±10.5 V Working Voltage 60 Vdc CAT I Channel to Earth	T4 @ 70 °C Ambient	nA
9157 9159	Backplane (Chassis), 14 Slot	9 – 30 Vdc, 35 W (No Controller)	T4 @ 55 °C Ambient	nA
9208 w/ DSUB	16-Channel, Analog Input, Current	+/- 20 mA	T4 @ 70 °C Ambient	nA
9207 w/ DSUB	16-Channel, Analog Input, TC; Voltage	+/- 20 mA, +/- 10 V	T4 @ 70 °C Ambient	nA
9023	Controller	9-35 Vdc, 35 W	T4 @ 70 °C Ambient	nA
9024	Controller	9-35 Vdc, 35 W	T4 @ 55 °C Ambient	nA
9505	Motor Drive Module	8-30 Vdc, 1 A continuous, 60 Vdc Ch-Earth	T4 @ 70 °C Ambient	nA
9264 w/ DSUB	16-Channel, ±10 V, 16-Bit Analog Output Module	+/- 10 V	T4 @ 70 °C Ambient	nA
9237	4-Channel 24-Bit Half/Full Bridge Analog Input Module Vdc AI Bridge	±30 V dc AI Bridge	T4 @ 70 °C Ambient	nA
9025	Controller	9-35 Vdc, 35 W	T4 @ 70 °C Ambient	nA
9792, 9792 WSN	Controller	9-35 Vdc, 15 W	T4 @ 70 °C Ambient	nA
9222, 9223	±10V, 4 CH, Analog Input	+/- 10 V Working Voltage 60 Vdc CAT I Channel to Earth	T4 @ 70 °C Ambient	nA

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Model No.	Module Type	Electrical Ratings	Temperature Ratings	Ex Marking
9214	16 CH Thermocouple Analog Input	±78 mV	T4 @ 70 °C Ambient	nA
9214 with TB-9214	16 Channel Terminal Block	NA	T4 @ 70 °C Ambient	nA
9375 with DSUB	32 Channel Digital Input / Output Module	6-30 Vdc, 250 mA	T4 @ 70 °C Ambient	nA
9148	Controller w/ Backplane chassis	19-30 Vdc, 20 W	T4 @ 70 °C Ambient	nA
9501	Motor Drive Module	9 – 30 Vdc Working Voltage, 3A 60Vdc CAT I Channel to Earth	T4 @ 70 °C Ambient	nA
3202	Wireless sensor node input/output module	9-30Vdc 2W Power	T4 @ 70 °C Ambient	nA
3212	Wireless sensor node input/output module	9-30Vdc 2W Power	T4 @ 70 °C Ambient	nA
3226	Wireless sensor node input/output module	5-30Vdc, 2W	T4 @ 70 °C Ambient	nA
9791	Wireless communications interface	9-30V dc, 4.5W	T4 @ 70 °C Ambient	nA
9075, 9076, and 9146	Integrated chassis and controllers with Ethernet backplanes	19-30VDC, 15W	T4 @ 70 °C Ambient	nA
FRC II	Integrated chassis and controllers with Ethernet backplanes	19-30VDC, 15W	T4 @ 55 °C Ambient	nA
9467	GPS Sync Module with Antenna	5VDC, 30mA	T4 @ 70 °C Ambient	nA
9502	Brushless Servo Drive	9-30VDC Working Voltage, 4A, 60VDC CAT I Channel to Earth	T4 @ 70 °C Ambient	nA
9862, 9861, 9881 and 9882	1-Port High Speed xNET CAN Modules	9-30VDC -Vsup, 60VDC CAT I Channel to Earth	T4 @ 70 °C Ambient	nA
9866	1-Port High Speed xNET CAN Modules	8-18VDC -Vsup, 60VDC CAT I Channel to Earth	T4 @ 70 °C Ambient	nA
9081, 9082	Integrated Chassis and controllers with Ethernet backplanes	9-30VDC, 75W, 60VDC CAT I, RS-485 to Earth	T4 @ 45°C ambient and 45°C to 55 °C Ambient with metal mounting plate	nA
9469	Timing and Sync Module	-1.4-3.8VDC Working Voltage	T4 @ 70 °C Ambient	nA
9232	IEPE and AC/DC Analog Input Module	+/- 30V Working Voltage, 60VDC CAT I Channel to Earth	T4 @ 70 °C Ambient	nA
9795	WSN Gateway Module	N/A, 1W Max.	T4 @ 70 °C Ambient	nA
3214, 3230, 3231	Strain Gauge, Serial Input/Output Modules	5-30Vdc, 2W	T4 @ 70 °C Ambient	nA

These are open-type devices intended for installation in an ultimate enclosure.

Routine tests

No routine tests are required.

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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 EU-Type Examination Certificate.

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#### Specific conditions of use:

- These devices shall be mounted in an ATEX Certified enclosure with a minimum ingress protection of at least IP54 as defined in EN 60079-15.
- These devices except for NI 9144, cRIO-9146, cRIO-9075, cRIO-9076, NI FRC II, cRIO-9081, cRIO-9082 and shall be used with ATEX certified Chassis for Group IIC and rated in accordance with the modules.
- These devices shall only be used in an area of not more than Pollution Degree 2, as defined in EN 60664-1.
- The enclosure must have a door or cover accessible only by the use of a tool.
- You must make sure that transient disturbances do not exceed 140% of the rated voltage.
- Models cRIO-9081, cRIO-9082 are rated for use in 45°C ambient and 45°C to 55°C ambient with mounting plate.

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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  **NATIONAL INSTRUMENTS** will be used as the company identifier on the marking label.