

(1) EU-TYPE EXAMINATION CERTIFICATE



- (2) Equipment and Protective Systems intended for use in Potentially Explosive Atmosphere - **Directive 2014/34/EU**
- (3) EU-Type Examination Certificate Number

TÜV 20 ATEX 8551 X

Issue: 00

- (4) Equipment: **Electronic Relay Module, Type 9174/12-15-01**
- (5) Manufacturer: **R. STAHL Schaltgeräte GmbH**
- (6) Address: **Am Bahnhof 30
74638 Waldenburg, Germany**

- (7) This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- (8) The TÜV Rheinland Zertifizierungsstelle für Explosionsschutz of TÜV Rheinland Industrie Service GmbH, Notified Body No. 0035 in accordance with Article 21 of the Council Directive 2014/34/EU of 26th February 2014, certifies this product which has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmosphere, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report 557/E8551.00/20

- (9) Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to:

**EN IEC 60079-0: 2018
EN 60079-18: 2014 / AC: 2018**

EN IEC 60079-7: 2015 / A1: 2018

EN 60079-11: 2012

- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.
- (11) This EU-Type Examination Certificate relates only to the design and specification for construction of the equipment or protective system. It does not cover the process for actual manufacture or supply of the equipment or protective system, for which further requirements of the directive are applicable.
- (12) The marking of the equipment shall include the following:



II 2 (1) G Ex eb mb [ia Ga] IIC T4 Gb and II (1) D [Ex ia Da] IIIC

Other Ex markings see operating instructions!

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz

Cologne, 2020-07-31

Dipl.-Ing. Klauspeter Graffi

This EU-Type Examination Certificate without signature and stamp shall not be valid.
This EU-Type Examination Certificate may be circulated only without alteration. Extracts or alterations are subject to approval by the TÜV Rheinland Industrie Service GmbH TÜV Rheinland Group Am Grauen Stein 51105 Köln
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(13) Annex

(14) **EU Type Examination Certificate**
TÜV 20 ATEX 8551 X Issue: 00

(15) Description of equipment

15.1 Equipment and type:

Electronic Relay Module
 Type 9174/12-15-01

15.2 Description / Details of Change

General product information

The Electronic Relay Module type 9174 is an explosion protected apparatus for installation in hazardous areas classified Zone 1, Zone 2, Zone 21, Zone 22 or in the safe area. The Electronic Relay Module switches AC circuits up to 253 V with a maximum current of 5 A.

The Electronic Relay Module provides galvanic isolation for up to 375 V peak according to IEC/EN 60079-11 between its two circuit parts, the input circuit and the output circuit. The input circuit can be connected to either Ex i circuits or non Ex i circuits. The output circuit can be only connected to non-intrinsically safe circuits.

The terminals for connection of the non-intrinsically safe circuits (input and output circuit) meet the requirements for type of protection Ex eb, while the internal circuits are protected by encapsulation Ex mb.

The Electronic Relay Module has to be mounted inside an enclosure with type of protection listed in IEC/EN 60079-0 (e.g.: Ex eb).

Relay Module	Type	9174/	a	b	-	c	d	-	e	f
Number Channel:		1								
Category Device:		2								
Input	Ex e or Ex i	1								
Output	Ex e	5								
Without ext. Power Supply		0								
Status LED		1								

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Technical Data

Electrical Data:

Input circuit X1: Terminal No. 4 (+) and No. 3 (-)

Connected to intrinsically safe circuits:

$U_i = 32 \text{ V DC}$

$U_n = 24 \text{ V DC (18 V – 32 V DC)}$

I_i and P_i : internally limited

C_i and $L_i \approx 0$

Connected to non-intrinsically safe circuits:

$U_m = 60 \text{ V DC}$

$U_n = 24 \text{ V DC (18 V – 32 V DC)}$

$I_n = 8.0 \text{ mA} \pm 2\text{mA}$

$P_n = 204 \text{ mW}$

Output circuit X2: Terminal No. 5 and No. 6

Connected to Non-intrinsically safe circuits:

$U_m = 253 \text{ V AC (20 V – 253 V AC)}$

The nominal output current I_n depends on the mounting on the DIN rail.

$I_n \leq 1 \text{ A}$ at $T_a 75 \text{ °C}$ when mounted side by side to another 9174 module.

$I_n \leq 2 \text{ A}$ at $T_a 75 \text{ °C}$ when mounted with 12 mm distance to other modules.

I_n is de-rated by 1 A/15 K from 75 °C down to 5 A at $T_a = 30 \text{ °C}$.

Environmental Data:

$T_a = -40 \text{ °C} \dots +75 \text{ °C}$ (see special conditions for derating)

(16) Test-Report No. 557/Ex8551.00/20

(17) Special Conditions for safe use

1. If the input circuit is connected to a non-intrinsically safe circuit, the absolute maximum rating of $U_m = 60\text{V}$ shall not be exceeded.
2. When used in Zone 1 and Zone 2, the device is to be installed in a protective enclosure with a type of protection listed in IEC/EN 60079-0, providing a grade of ingress protection of at least IP54.
When used in Zone 21 and Zone 22, the device is to be installed in a protective enclosure with a type of protection according to IEC/EN 60079-31.
3. Module mounted on a DIN Rail side by side to another 9174 module and $I_{\text{output}} \leq 1 \text{ A}$ or
Module mounted on a DIN Rail with $> 12 \text{ mm}$ distance to another 9174 module and $I_{\text{output}} \leq 2 \text{ A}$:
 $T_a = -40 \text{ °C} \dots +75 \text{ °C}$
The ambient temperature T_a is de-rated by 15 K/A I_{output} down to $T_a = 30 \text{ °C}$ at $I_{\text{output}} \leq 5 \text{ A}$.

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(18) Basic Safety and Health Requirements

Covered by afore mentioned standard

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz

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