



(1) TYPE EXAMINATION CERTIFICATE

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

TÜV 20 ATEX 8571 X

Issue: 00

- (4) Equipment: **APL Rail Switch type ARS*-B2-IC***
- (5) Manufacturer: **Pepperl+Fuchs SE**
- (6) Address: **Lilienthalstraße 100
68307 Mannheim , 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/Ex 8571.00/20

- (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 IEC 60079-7:2015/A1:2018
EN IEC 60079-15:2019 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 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 3 G Ex ic ec nC [ic] IIC T4 Gc
II (3) D [Ex ic Dc] IIIC

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz

Cologne, 2021-05-26

Dipl.-Ing. Christian Mehrhoff



This Type Examination Certificate without signature and stamp shall not be valid.
 This 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) **Type Examination Certificate**
TÜV 20 ATEX 8571 X Issue: 00

(15) Description of equipment

15.1 Equipment and type:

APL Rail Switch type ARS*-B2-IC*

There are three main variants of the equipment:

ARS*-B2-IC08* stands for 8 spur intrinsically safe outputs

ARS*-B2-IC16* stands for 16 spur intrinsically safe outputs

ARS*-B2-IC24* stands for 24 spur intrinsically safe outputs

The asterisks in the type designation will be replaced by letter or number combinations which do not impact the safety and only stand for the different functional variations.

15.2 Description / Details of Change

The APL Rail Switch type ARS*-B2-IC* can be installed inside areas with gas that require category 3 equipment.

The intrinsically safe output circuits of this equipment may be connected to areas with gas or dust that require category 3 equipment.

The intrinsically safe output circuits meet the requirements for 2-WISE and FISCO according to the used standards EN 60079-11:2012 and IEC TS 60079-47:2021.

The non-intrinsically safe circuits of the APL Rail Switch will be connected to an extra low voltage supply (SELV/PELV).

Up to two SFP Modules (TÜV 20 ATEX 8572 X) can be plugged into the APL Rail Switch.

The used enclosure provides a level of protection of at least IP20.

The reset switch circuit is designed in the type of protection intrinsic safety.

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Technical Data

Electrical Data:

Non-intrinsically safe circuits

Supply circuit

(6-pin connector, pin no. 1 to 4: PWR A -, PWR A +, PWR B -, PWR +)

Maximum voltage $U_m = 60 \text{ V}$

Nominal voltage (range) $U_n = 20 \dots 60 \text{ VDC}$

Relay contact

(6-pin connector, pin no. 5 and 6: FAIL 1 and FAIL 2)

Maximum voltage $U_m = 60 \text{ V}$

Nominal voltage (range) $U_n = 0 \dots 32 \text{ V}$

Nominal current (range) $I_n = 0 \dots 100 \text{ mA}$

Network Interface

(two RJ45 sockets: P1 and P2)

for each connection

Maximum voltage $U_m = 60 \text{ VDC}$

Network Interface

(two SFP slots: P3 and P4)

up to two SFP Modules (TÜV 20 ATEX 8572 X) can be installed.

Intrinsically safe circuits (2-WISE power source and FISCO power supply)

(up to 24 3-pin connectors: no. S1 (S, -, +) to no. S24 (S, -, +))

for each output

Maximum output voltage $U_o = 17.5 \text{ V}$

Maximum output current $I_o = 105 \text{ mA}$

The shield connections S may only be connected to the cable shield.

Environmental data:

The permitted ambient temperature range depends on the orientation of the device and if SFP modules (TÜV 20 ATEX 8572 X) are used.

Horizontal orientation without SFP Modules:

$-40 \text{ °C} \leq T_a \leq +70 \text{ °C}$

Horizontal orientation with SFP Modules:

$-40 \text{ °C} \leq T_a \leq +65 \text{ °C}$

Vertical orientation with or without SFP Modules:

$-40 \text{ °C} \leq T_a \leq +55 \text{ °C}$

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Test-Report No. 557 / Ex 8571.00 / 20

(16) Special Conditions for safe use

1. The equipment shall only be used in an area of at least pollution degree 2, as defined in EN 60664-1.
2. The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP54 in accordance with EN 60079-0.
3. The mounting orientation must be taken into account.

(18) Basic Safety and Health Requirements

Covered by aforementioned standards

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz

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