

# (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 8572 X**


Issue: 01

- (4) **Equipment:** Module type SFP-\*
- (5) **Manufacturer:** Pepperl+Fuchs SE
- (6) **Address:** Lilienthalstrasse 200  
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 26<sup>th</sup> 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 8572.01 / 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**

- (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 ec IIC T4 Gc**

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz

Cologne, 2023-02-03

  
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  
Tel. +49 (0) 221 806-0 Fax. +49 (0) 221 806 114

[www.tuv.com](http://www.tuv.com)

(13)

Annex

(14)

## Type Examination Certificate

### TÜV 20 ATEX 8572 X

Issue: 01

(15) Description of equipment

#### 15.1 Equipment and type:

Module type SFP-\*

Type designation:

Type code	Description
SFP-1*	Fast Ethernet SFP Module: Data rate 155 Mb/s, reach 2 km, wavelength 1310 nm (multimode)
SFP-2*	Gigabit Ethernet SFP Module: Data rate 1.25 Gb/s, reach 550 m, wavelength 850 nm (multimode)
SFP-3*	Fast Ethernet SFP Module: Data rate 155 Mb/s, reach 30 km, wavelength 1310 nm (single mode)
SFP-4*	Gigabit Ethernet SFP Module: Data rate 1.25 Gb/s, reach 10 km, wavelength 1310 nm (single mode)

“\*” can be replaced by a number and/or letter combination which is describing different functional variants of the SFP Modules. The functional differences do not impact the hazardous area rating.

#### 15.2 Description / Details of Change

The Module type SFP-\* can be installed inside areas with gas that require category 3 equipment.

The module provides as a pluggable transceiver an electrical and an optical interface.

The module is designed in type of protection Increased Safety and in addition provides a separation to earth in type of protection Intrinsic Safety.

The device is intended to be plugged into a standardized SFP or SFP+ slot in accordance with the Multi Source Agreement (MSA) for SFP or SFP+.

Details of Change:

Introduction of SFP-3\* and SFP-4\*

#### Technical Data

#### **Electrical Data:**

Nominal voltage (range)  $U_n = 3.1 \dots 3.5 \text{ V}$

This Type Examination Certificate without signature and official stamp shall not be valid.  
 This certificate may be circulated without alteration. Extracts or alterations are subject to approval by:  
 Zertifizierungsstelle of TÜV Rheinland Industrie Service GmbH

**Environmental data:**

Ambient temperature range:  $-40\text{ °C} \leq T_a \leq +85\text{ °C}$

Test-Report No.                      557 / Ex 8572.01 / 20

(16) Special Conditions for safe use

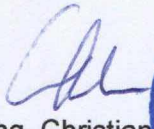
1. The equipment shall only be used in an area of at least pollution degree 2, as defined in EN 60664-1.
2. The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP54 in accordance with EN 60079-0.
3. The host device containing the SFP or SFP+ slots must provide a transient protection for all voltages supplied to the SFP Module. It must be ensured that the peak value of the transient protection does not exceed 140 % of 85 V.

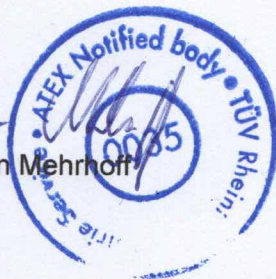
(18) Basic Safety and Health Requirements

Covered by afore mentioned standards

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz

Cologne, 2023-02-03

  
Dipl.-Ing. Christian Mehrhoff



This Type Examination Certificate without signature and official stamp shall not be valid.  
This certificate may be circulated without alteration. Extracts or alterations are subject to approval by:  
Zertifizierungsstelle of TÜV Rheinland Industrie Service GmbH