

(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 8598 X

Issue: 00

- (4) Equipment: **Valve position sensors type N*N*-F31K2*-*-S-***
- (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 8598.00/20

- (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 60079-31: 2014

- (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 D Ex tc IIIC T80°C Dc

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz

Cologne, 2021-01-15

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

(13) Annex

(14) **Type Examination Certificate**
TÜV 20 ATEX 8598 X Issue: 00

(15) Description of equipment

15.1 Equipment and type:

Valve position sensors type N*N*-F31K2*-*-*S-*

The asterisks in the type designation will be replaced by letter or number combinations and indicate the respective type of the construction of the equipment.

The asterisks stand for following:

1. Sensor series
The first asterisk will be replaced by letters B or C.
2. Operating distance
The second asterisk stands for the sensing distance in millimeters.
3. Housing variant
The third asterisk will be replaced by „M“ or nothing.
4. Electrical output of the sensor
The fourth asterisk will be replaced by E8 or Z8L.
5. Connection elements
The fifth asterisk will be replaced by B13 or B23.
6. Custom specific variants (optional)

15.2 Description / Details of Change

The sensor is intended to convert mechanical displacement into electrical signals.
The sensor will be connected to a protected power supply (SELV / PELV) with voltage limitation.

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Technical Data

Electrical Data:

- 1 Sensor circuits
Two separate sensor circuits with the ratings:
 $U_{B \text{ MAX}} = 30\text{V}$, $I_{L \text{ MAX}} = 100 \text{ mA}$
- 2 Valve circuit
 $U_{V \text{ MAX}} = 32\text{V}$, $I_{V \text{ MAX}} = 240 \text{ mA}$

Environmental data:

$-40 \text{ °C} \leq T_a \leq +60 \text{ °C}$

(16) Test-Report No.

557 / Ex 8598.00 / 20

(17) Special Conditions for safe use

1. The sensor shall be mounted in such way that it is protected against mechanical hazard – see operating instructions.
2. The sensor shall be mounted and used in such way that it is protected against electrostatic charge – see operating instructions.
3. The sensor shall be mounted in such a way that it is protected from ultraviolet radiation – see operating instructions.
4. The environmental data must be taken into account – see ambient temperature ranges above.

(18) Basic Safety and Health Requirements Covered by afore mentioned standard

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