



(1) **EU-TYPE EXAMINATION CERTIFICATE**

- (2) Component Intended for use in an Equipment or Protective System for use in Potentially Explosive Atmospheres – **Directive 2014/34/EU**
- (3) EU-Type Examination Certificate Number:

SIQ 18 ATEX 016 U

Issue: 1



- (4) Component: V-meter, type: 8404/6
- (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) SIQ Ljubljana, Notified body number 1304 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 the Directive. Certification body is not accredited for notification purposes.

The examination and test results are recorded in the confidential test report TEx002/23.

- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN IEC 60079-0:2018 + AC:2020-02** **EN IEC 60079-7:2015 + A1:2018**
- EN 60079-18:2015 + A1:2017 + AC:2018-09**

Where additional criteria beyond those given here have been used, they are listed at item (18) in the schedule to this certificate.

- (10) The sign “U” is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.
- (11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance with the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- (12) The marking of the product shall include the following:

II 2 G Ex eb mb IIC Gb

I M 2 Ex eb mb I Mb

Certification body

Ljubljana, 10 February 2023

Bojan Pečavar

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The EU-Type Examination Certificate is valid only if signed. The certificate may be reproduced only in full and without changes. Any extracts and changes shall be approved by SIQ Ljubljana.

SIQ Ljubljana is accredited by Slovenian Accreditation with accreditation number CP-001 in the field of certification of products, processes and services (SIST EN ISO/IEC 17065).

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(13)

SCHEDULE

(14) **EU-Type Examination Certificate Number SIQ 18 ATEX 016 U, Issue: 1**

(15) Description of Product

V-meter, type: 8404/6, is used for measurement and display of voltage values in hazardous area. It is intended for installation in appropriate enclosure with degree of ingress protection of at least IP54 according to EN IEC 60079-0. Moving-iron measuring elements are used as measuring system.

Technical data

| V-meter | Type: 8404/6 | |
|---|--|------------------------|
| Ratings | Nominal voltage [V] | Power consumption [VA] |
| | 10 | 1.9 |
| | 100 | 1.9 |
| | 150 | 1.8 |
| | 250 | 2.1 |
| 500 | 2.2 | |
| Housing – connection and terminals holder | Polyamide or Polycarbonate | |
| Ingress protection | Without terminal cover: IP00 With terminal cover: IP20 | |
| Rated insulation voltage | 690 V | |
| Movement | Moving iron | |
| Overload capacity | $2 \times U_n$ for 60 s | |
| Mounting | TS35 mounting rail | |
| Connection - wiring | Solid: 1 mm ² ... 6 mm ² (AWG 17 ... 9) | |
| | Finely stranded or stranded: 1 mm ² ... 4 mm ² (AWG 17 ... 11) | |
| Terminal clamp tightening torque | 1.2 Nm | |

(16) Test Report

TEx002/23 dated 10 February 2023.

(17) Schedule of Limitations

- V-meters must be completely installed in an enclosure with degree of ingress protection of at least IP54 according to EN IEC 60079-0.
- Creepage distances and clearances between the connection terminals and the enclosure parts must be kept according to EN IEC 60079-7, Table 2.
- V-meters are suitable for following temperature classes within corresponding ambient temperature ranges at location of installation:
 - temperature class T4 ... -55°C or $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +70^{\circ}\text{C}$
 - temperature class T5 ... -55°C or $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +55^{\circ}\text{C}$
 - temperature class T6 ... -55°C or $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +40^{\circ}\text{C}$

Note: If additional suffix “(-40°C)” is added to the type reference on the marking label, then the V-meters are suitable for minimum ambient temperature of -40°C, otherwise they are suitable for minimum ambient temperature of -55°C. For details see Operating instructions.



(18) Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements has been assured by compliance with the requirements of the standards listed under item (9).

(19) Drawings and Documents

| Title: | Drawing No.: | Rev. Level: | Date: |
|--|--------------------|-------------|--------------|
| * Certification Operating Instructions, V meters 8404/6 (FQ0307), R. Stahl Schaltgeräte GmbH | 8404 0 000 015 0 | Issue 2.0 | 10. 5. 2022 |
| * Test Report, PU6 Potting Material D0206-00 for 840* gauges, Temperature cycling test, Tensile test, Hardness test (Shore A), Microsection inspection, R. STAHL Schaltgeräte GmbH | UB12252 | / | 15. 12. 2021 |
| Technical drawing EX FQ0307, GENERAL ASSEMBLY FQ0307, Iskra d.d. | 22.025.200.EX, L1+ | V2 | 24. 8. 2017 |
| Technical drawing EX FQ0307, EXPLODED VIEW – DRAWING FQ0307, Iskra d.d. | 22.025.200.EX, L2+ | V2 | 24. 8. 2017 |
| Technical drawing EX FQ0307, MARKINGS FQ0307, Iskra d.d. | 22.025.200.EX, L3+ | V1 | 31. 8. 2017 |
| Technical drawing EX FQ0307, ATEX critical components, Iskra d.d. | 22.025.200.EX, L4+ | V1 | 20. 12. 2017 |
| Technical drawing EX FQ0307, Iskra d.d. | 22.025.200.EX, 5+ | V1 | 20. 12. 2017 |
| Technical drawing EX FQ0307, ENCAPSULATION FQ0307, Iskra d.d. | 22.025.200.EX, L4+ | V2 | 24. 8. 2017 |
| Technical drawing EX NAVITJE VZBUJEVALNO, FQ0307EX, Iskra d.d. | W22.811.577, L1 | V2 | 4. 1. 2018 |
| Technical drawing EX DNO, FQ0307EX, Iskra d.d. | 22.710.123, L1 | V1 | 25. 5. 2017 |
| Technical drawing EX ZASCITA KONTAKTA, FQ0307EX, Iskra d.d. | 22.710.005, L1 | V1 | 26. 5. 2017 |
| Technical drawing EX PODALJSEK Q72 RAIL, FQ0307EX, Iskra d.d. | 22.710.004, L1 | V3 | 25. 1. 2017 |
| Technical drawing EX POKROV KONTAKTA, FQ0307EX, Iskra d.d. | 22.710.011, L1 | V1 | 26. 5. 2017 |
| Technical drawing EX KONTAKT Q72 RAIL, FQ0307EX, Iskra d.d. | 22.710.006, L1 | V3 | 5. 10. 2016 |
| Technical drawing EX SPONKA, KMPL, Iskra d.d. | 37.900.399, List 1 | 10 | 20. 6. 2017 |
| Technical drawing EX VIJAK M4, BI, Iskra d.d. | 37.300.811, List 1 | 3 | 20. 6. 2017 |



| Title: | Drawing No.: | Rev. Level: | Date: |
|---|----------------|-------------|-------------|
| Technical drawing EX PODLOŽKA 4B DIN127, FQ0307EX, Iskra d.d. | 91.012.596, L1 | V1 | 10. 7. 2017 |
| Technical drawing EX KONTAKT M4V, FQ0307EX, Iskra d.d. | 22.710.104, L1 | V3 | 15. 2. 2017 |
| Technical drawing EX OGRODJE, FQ0307EX, Iskra d.d. | 22.710.023, L1 | V1 | 7. 6. 2016 |

*Note: An * is included before the title of documents that are new or revised.*

(20) Consolidated Certificates

This certificate is a consolidated certificate and reflects the latest status of the certification, including the following:

- Original EU-Type-Examination Certificate No. SIQ 18 ATEX 016 U, Issue 0.
- Issue 1: New editions of standards were considered, and minimum service temperature was decreased from -40°C to -55°C for V-meters with one of the used casting compounds.