



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

(2) Component Intended for use on/in an Equipment or Protective System for use in Potentially Explosive Atmospheres – **Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number:

SIQ 17 ATEX 192 U

Issue: 1



(4) Component: Ammeter, types 8403/6 and 8405/6

(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 TEx001/23.

(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 IIC Gb

II 2 G Ex eb mb IIC Gb

or

I M 2 Ex eb I Mb

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 17 ATEX 192 U, Issue: 1**

(15) Description of Product

Ammeter, types 8403/6 and 8405/6, is an Ex-Component used for measurement and display of current values in hazardous area. It is intended for installation in appropriate enclosure with degree of ingress protection of at least IP54 according to EN 60079-0. Moving-iron measuring elements are used as measuring system.

Technical data

	Ammeter	
	Type: 8403/6	Type:8405/6
Rated current – measuring range	1 A – 0...2 A	
	1.5 A – 0...3 A	
	2.5 A – 0...5 A	
	4 A – 0...8 A	
	5 A – 0...10 A	
	10 A – 0...20 A	
	15 A – 0...30 A	
	25 A – 0...50 A	
Rated insulation voltage	690 V	
Short-circuit current (overload capacity)	$I_{SC} = 30 \times I_n \dots$ for $I_n = 25$ A $I_{SC} = 50 \times I_n \dots$ for all others	$I_{SC} = 30 \times I_n \dots$ for $I_n = 15$ A $I_{SC} = 50 \times I_n \dots$ for all others
Power dissipation	max. 0.67 VA	
Connection - wiring	<i>Solid:</i> 2.5 mm ² ... 10 mm ² (AWG 13 ... 7) min. 4 mm ² ... for $I_n = 15$ A min. 6 mm ² ... for $I_n = 25$ A <i>Finely stranded or stranded:</i> 2.5 mm ² ... 6 mm ² (AWG 13 ... 9) min. 4 mm ² ... for $I_n = 15$ A min. 6 mm ² ... for $I_n = 25$ A	
Terminal clamp tightening torque	1.2 Nm	

(16) Test Report

TEx001/23 dated 10 February 2023.

(17) Schedule of Limitations

- Ammeters 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.



- Ammeters are suitable for following temperature classes within corresponding ambient temperature ranges at location of installation:

- temperature class T4 ... -60°C or $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +70^{\circ}\text{C}$
- temperature class T5 ... -60°C or $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +55^{\circ}\text{C}$
- temperature class T6 ... -60°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 Ammeters are suitable for minimum ambient temperature of -40°C , otherwise they are suitable for minimum ambient temperature of -60°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:
* Ammeters 8403/6 (FQ0307) and 8405/6 (FQ0407), Certification Operating Instruction, R. STAHL Schaltgeräte GmbH	8403 0 000 027 0 and 8405 0 000 026 0	V2.0	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
GENERAL ASSEMBLY FQ0307, Iskra d.d.	22.025.100.EX, L1+	V1	26. 6. 2017
EXPLODED VIEW – DRAWING FQ0307, Iskra d.d.	22.025.100.EX, L2+	V1	24. 4. 2017
MARKINGS FQ0307, Iskra d.d.	22.025.100.EX, L3+	V2	31. 8. 2017
ENCAPSULATION FQ0307, Iskra d.d.	22.025.100.EX, L4+	V1	26. 5. 2017
WINDINGS FQ0307, Iskra d.d.	22.025.100.EX, L5	V1	29. 6. 2017
GENERAL ASSEMBLY FQ0407, Iskra d.d.	22.025.300.EX, L1+	V1	29. 5. 2017
EXPLODED VIEW – DRAWING FQ0407, Iskra d.d.	22.025.300.EX, L2+	V1	29. 5. 2017
MARKINGS FQ0407, Iskra d.d.	22.025.300.EX, L3+	V3	31. 8. 2017
ENCAPSULATION FQ0407, Iskra d.d.	22.025.300.EX, L4+	V1	29. 5. 2017
WINDINGS FQ0407, Iskra d.d.	22.025.300.EX, L5	V1	29. 6. 2017
Technical drawing, EX DNO, FQ0307EX, Iskra d.d.	22.710.123	V1	25. 5. 2017
Technical drawing, EX ZASCITA KONTAKTA, FQ0307EX, Iskra d.d.	22.710.005	V1	26. 5. 2017
Technical drawing, EX PODALJSEK Q72 RAIL, FQ0307EX, Iskra d.d.	22.710.004	V3	25. 1. 2017



Title:	Drawing No.:	Rev. Level:	Date:
Technical drawing, EX KONTAKT M4A, FQ0307EX, Iskra d.d.	22.710.034	V2	27. 6. 2016
Technical drawing, EX KONTAKT Q72 RAIL, FQ0307EX, Iskra d.d.	22.710.006	V3	5. 10. 2016
Technical drawing, EX OGRODJE, FQ0307EX, Iskra d.d.	22.710.023	V1	7. 6. 2016
Technical drawing, EX NAVITJE VZBUJEVALNO Q72, FQ0307EX, Iskra d.d.	W22.811.572	V2	30. 8. 2017
Technical drawing, EX NAVITJE VZBUJEVALNO 10A, FQ0307EX, Iskra d.d.	22.710.057	V1	30. 8. 2016
Technical drawing, EX NAVITJE VZBUJEVALNO 15A, FQ0307EX, Iskra d.d.	22.710.058	V1	30. 8. 2016
Technical drawing, EX NAVITJE VZBUJEVALNO 25A, FQ0307EX, Iskra d.d.	22.710.059	V1	4. 7. 2017
Technical drawing, EX POKROV KONTAKTA, FQ0307EX, Iskra d.d.	22.710.011	V1	26. 5. 2017
Technical drawing, EX MERILNIK FQ0407, FQ0407EX, Iskra d.d.	W22.025.300	V1	18. 1. 2017
Technical drawing, EX DNO RAIL F-6A, FQ0407EX, Iskra d.d.	22.710.010	V1	26. 5. 2017
Technical drawing, EX PLASC, FQ0407EX, Iskra d.d.	22.710.025	V1	29. 6. 2017
Technical drawing, EX KONTAKT Q48 RAIL, FQ0407EX, Iskra d.d.	22.710.012	V3	5. 10. 2016
Technical drawing, EX NAVITJE VZBUJEVALNO Q48, FQ0407EX, Iskra d.d.	W22.811.582	V2	29. 8. 2017
Technical drawing, EX OGRODJE, FQ0407EX, Iskra d.d.	22.710.024	V1	26. 5. 2017
Technical drawing, EX NAVITJE VZBUJEVALNO 10A Q48, FQ0407EX, Iskra d.d.	22.710.060	V2	29. 8. 2017
Technical drawing, EX NAVITJE VZBUJEVALNO 15A Q48, FQ0407EX, Iskra d.d.	22.710.061	V2	30. 8. 2017
Technical drawing, EX SPONKA, KMPL, Iskra d.d.	37.900.399	10	20. 6. 2017
Technical drawing, EX VIJAK M4, BI, Iskra d.d.	37.300.811	3	20. 6. 2017
Technical drawing, EX PODLOŽKA 4B DIN127, FQ0307EX, Iskra d.d.	91.012.596	V1	10. 7. 2017

*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 17 ATEX 192 U, Issue 0.
- Issue 1: New editions of standards were considered, and minimum service temperature was decreased from -40°C to -60°C for Ammeters with one of the used casting compounds.