electro suisse

EC-Type Examination Certificate

(1)

(2) Equipment or protective system intended for use in potentially explosive atmospheres - **Directive 94/9/EC**

(3) Examination certificate number: **SEV 14 ATEX 0171 X**

(4) Equipment: Weighing system 4000 consisting of:
power supply module type 4051A, IF module types 4015A and 4040A, and weighing cell types CL-Ex; CM-Ex; CH-Ex; BL-Ex; BM-Ex; BH-Ex; SPSX-Ex; SPSXL-Ex; SBL-Ex; SBM-Ex; SBH-Ex; TL-Ex; TM-Ex; TH-Ex; HT-Ex; HTH-Ex; HTH-Ex; ELCL-Ex; ELCM-Ex; ELCH-Ex.

(5) Manufacturer: Eilersen Electric A/S

(6) Address: Kokkedal Industripark 4, DK-2980 Kokkedal

(7) The equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) Electrosuisse SEV, notified body No. 1258 in accordance with article 9 of the Council Directive of the European Communities of 23 March 1994 (94/9/EC), certifies that this equipment has been found to comply with the essential health and safety requirements relating to the design and construction of equipment or protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The results of the examination are recorded in confidential report no. 14-Ex-0087.01.

(9) Compliance with the essential health and safety requirements has been assured by compliance with:
EN 60079-0:12 + A11:13 **EN 60079-11:12** **EN 60079-26:15**

(10) If the sign «X» is placed after the certificate number, it indicates that the equipment or protective system is subjected to special conditions for safe use specified in the schedule to this certificate.

(11) This examination certificate relates only to design and construction of the specified equipment in accordance with the directive 94/9/EC. Further requirements of this directive apply to the manufacturing process and the placing on the market of the equipment.

(12) The marking of the equipment shall include the following:

see Appendix page 3 (19) Markings

Electrosuisse
Notified Body ATEX

Martin Plüss
Product Certification

SWISS CERTIFICATION
SCESp 035

Fehraltorf, 2015-04-16

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(13) # Appendix

(14) **EC-Type Examination Certificate**

(15) Description of the equipment

The weighing system 4000 consists of power supply module type 4051A, IF module types 4015A and 4040A, and weighing cells types CL-Ex; CM-Ex; CH-Ex; BL-Ex; BM-Ex; BH-Ex; SPSX-Ex; SPSXL-Ex; SBL-Ex; SBM-Ex; SBH-Ex; TL-Ex; TM-Ex; TH-Ex; HT-Ex; HTH-Ex; HTH-Ex; ELCL-Ex; ELCM-Ex; ELCH-Ex.

The power supply module type 4051A is used for the intrinsically safe supply of power to the IF module types 4015A and 4040A. The power supply module is an accessory device with an intrinsically safe prelimiter "[Ex ia]" and power circuits in "[Ex ia] IIC" type of explosion protection installed outside of the area at risk.

The IF module is used to supply the weighing cells and galvanically disconnected signal transmission to the evaluation devices. The IF module is an accessory device in "[Ex ia] IIC" type of explosion protection installed outside of the area at risk.

The modules are mounted in a module carrier house provided for installation into a module rack. The module carrier housing - the protective housing of the module has IP20 type of protection.

The weighing cells are intrinsically safe equipment in "[Ex ia] IIC" type of protection that may be installed within the area of risk.

The weighing cells are connected to the IF module using a screened coaxial cable and a BNC plug. Up to four weighing cells can be connected to an IF module.

Ratings according to the test reports.

(16) Test Report 14-Ex-0087.01

(17) Special conditions for safe use

1. The power supply module type 4051A and IF module types 4015A and 4040A may be installed only outside of the area at risk of explosion.

2. The power supply module type 4051A and IF module types 4015A and 4040A must be installed in such a way that at least IP20 type of protection according to standard IEC/EN 60529 is achieved.

3. The power supply module type 4051A may be connected only to a feed current circuit if it safely galvanically disconnected (PELV power circuit) and limited by to the rated current by a fusible link.

4. The maximum voltage of IF module types 4015A and 4040A on non-intrinsically safe power circuits must not exceed 60 V eff in case of a fault.

5. The output and supply power circuit (2-pole plug connection OUT 24 V) of the power supply module type 4051A may only be conducted outside of the area at risk of explosion.

6. According to RL 94/9/EC (ATEX 95) Appendix I, the weighing cells are devices of equipment group II, category 2G, which, according to RL 99/92/EC (ATEX 137) can be used in zones 1 and 2, as well as gas groups IIA, IIB, and IIC, which are potentially explosive due to combustible substances in the temperature classes T1 to T6.

   The requirements of EN 60079-14 must be observed for use/installation.

7. According to RL 94/9/EC (ATEX 95) Appendix I, the weighing cells are devices of equipment group II, category 2D, which, according to RL 99/92/EG (ATEX 137) can be used in zones 21 and 22 in the presence of combustible dusts.

   The requirements of EN 60079-14 must be observed for use/installation.

8. The weighing cells are connected to IF module type 4015A and/or 4040A by a screened coaxial cable with a maximum length of 1'200 m using a BNC plug or a screened Ex certified cable with a capacitance of <100 nF.

9. The weighing cells connected with the screen are to be included in the equipotential bonding (PA/PE) of the system along the entire length of the cable route.

10. The highest permissible ambient temperature range is -20 °C to +50 °C.

11. In addition, the "ATEX 4000 System" diagram of the manufacturer (Eilersen Electric A/S) must be observed for the connection of the weighing system.

(18) Fundamental essential health and safety requirements

Fulfilled by the standards applied.

(19) Markings

Power supply module:	Ⓔx	II (2)G	[Ex ia Gb]
		II (2)D	[Ex ia Db]
IF-Modules:	Ⓔx	II (2)G	[Ex ia Gb] IIC
		II (2)D	[Ex ia Db] IIIC
Load cells:	Ⓔx	II 2G	Ex ia IIC T6 Gb
		II 2D	Ex ia IIIC T85 °C Db

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