



1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 15ATEX1204X** Issue: **3**

4 Equipment: **MZB Module**

5 Applicant: **Neles Finland OY**

6 Address: Vanha Porvoontie 229
Vantaa
FI-01380
Finland

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

8 CSA Group Netherlands B.V., Notified Body Number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2012/A11:2013 IEC 60079-1:2014 EN 60079-11:2012 IEC 60079-31:2013

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 2(2)GD
Ex d[ib] IIC T4 Gb
Ex tb IIIC T105°C Db IP68
Ta = -40°C to +85°C

Project Number 80059149

Signed: J A May

Title: Director of Operations

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CSA Group Netherlands B.V.
Utrechtseweg 310,
6812 AR, Arnhem,
Netherlands



SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

Sira 15ATEX1204X
Issue 3

13 DESCRIPTION OF EQUIPMENT

The MZB Module is intrinsically safe associated apparatus that converts a nominal 24 Vdc “binary input” signal into an intrinsically safe “binary output”. This circuitry is encapsulated into the base of a flameproof enclosure. In addition, the MZB Module provides a facility for routing an independent, intrinsically safe FISCO supply without modification of the entity parameters.

The binary input is non-intrinsically safe with a nominal maximum voltage of 24 Vdc, but with an assumed fault voltage (U_m) of 250 Vrms. The intrinsically safe binary output, as well as the FISCO output, are intended to supply a Neles flameproof VG9000F Valve Controller via an intermediate flameproof bushing that inter-connects the two enclosures. The Valve Controller and bushing are separately certified, but it is intended that all three devices are used together.

The MZB Module has the following intrinsically safe entity parameters:

Fieldbus input (3-way terminal block)	Fieldbus output (3-way terminal block)	Binary output (2-way terminal block)
$U_i = 9-32 \text{ Vdc}$	$U_o = U_i$ $I_o = I_i$ $P_o = P_i$	$U_o = 28 \text{ V}$ $I_o = 118 \text{ mA}$ $P_o = 825 \text{ mW}$ $C_o = 83 \text{ nF}$ $L_o = 220 \text{ }\mu\text{H}$

Variation 1 - This variation introduced the following changes:

- i. The replacement of:
 - Fuse (F2), with a Schurter UMT 250 series ‘barrier’ fuse which has a slow blowing time characteristic.
 - A non-safety critical, transient voltage suppressor.

Variation 2 - This variation introduced the following changes:

- i. The certificate holders and Applicant's name was changed:

From:
‘Metso Flow Control OY’

To:
‘Neles Finland OY’

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	19 August 2015	R70037813A	The release of the prime certificate.
1	24 September 2015	R70044345A	The introduction of Variation 1.



SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

Sira 15ATEX1204X
Issue 3

Issue	Date	Report number	Comment
2	15 October 2019	1539	• Transfer of certificate Sira 15ATEX1204X from Sira Certification Service to CSA Group Netherlands B.V. • EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. (In accordance with Article 41 of Directive 2014/34/EU, EC Type-Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variations to such EC Type-Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)
3	16 November 2020	R80059149A	The introduction of Variation 2

15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

- 15.1 The equipment contains a shunt zener diode interface, which is internally grounded to the enclosure. The enclosure shall be connected to a suitable earth in accordance with the relevant code of practice (e.g. EN 60079-14), either using the external earthing stud or by another suitable method.
- 15.2 If the ambient temperature is above 70°C, the cable shall be selected accordingly.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

Certificate Annexe



Certificate Number: Sira 15ATEX1204X

Equipment: MZB Module

Applicant: Neles Finland OY

Issue 0

Drawing no.	Sheets	Rev.	Date (Sira stamp)	Description
104183	1 of 1	B	6 Aug 15	Mechanical BoM
104184	1 of 1	A	6 Aug 15	Wiring and grounding
699509	1 to 3	C	6 Aug 15	General assembly
BOM35620	1 of 1	A	15 Jul 15	BoM, top board
BOM35630	1 of 1	A	15 Jul 15	BoM, bottom board
F55498	1 of 1	B	19 Aug 15	Marking
PCB35620	1 to 8	A	6 Aug 15	Track layout, top board
PCB35630	1 to 8	A	6 Aug 15	Track layout, bottom board
SCH35620_35630	1 of 1	A	15 Jul 15	Schematic

Issue 1

Drawing	Sheets	Rev.	Date (Sira stamp)	Description
SCH35620_35630	1 of 1	B	08 Sep 15	Schematic
BOM35620	1 of 1	B	08 Sep 15	BoM, top board
BOM35630	1 of 1	B	08 Sep 15	BoM, bottom board
PCB35630	1 to 8	B	08 Sep 15	Track layout, bottom board

Issue 2. No new drawings were introduced.

Issue 3.

Drawing	Sheets	Rev.	Date (Sira stamp)	Description
F55498	1 of 1	D	03 Nov 20	Marking

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