



## 1 EU-TYPE EXAMINATION CERTIFICATE

- 2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 3 Certificate Number: Sira 14ATEX5063X

Issue:

6

- 4 Equipment: Gecma Display Module yy
- 5 Applicant: Eaton Electric Limited 6 Address: Great Marlings
- 6 Address: Great Marlings Butterfield Luton LU2 8DL UK
- 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 EN 60079-11:2012 EN 60079-18:2015

- 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:

έx, 11 2G Ex mb ib IIC T4 Gb  $Ta = -30^{\circ}C$  to  $+75^{\circ}C$  or  $Ta = -40^{\circ}C$  to  $+75^{\circ}C$  24" Low temperature version

Project Number 80110232

Signed: J A May

Title: Director of Operations



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## SCHEDULE

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#### 13 DESCRIPTION OF EQUIPMENT

The Gecma Display Module yy is a stand-alone device that comprises a display panel, with or without touchscreen capability, as well as associated printed circuit boards, all encapsulated. The enclosure is manufactured from aluminium alloy and the display is protected by toughened glass.

Connections are made by means of flying leads:

- Power lead from a Gecma PSU Module (Sira 14ATEX5061X): nominally 22 Vdc power and thermal fuse lines plus a 5 Vdc supply;
- LVDS lead: an intrinsically safe supply from a Gecma COM Module RT (Sira 14ATEX5062X);
- Optional touchscreen lead: an intrinsically safe supply from a Gecma COM Module RT.

The intrinsically safe connections have the following entity parameters:

LVDS flying lead	USB port (for optional touchscreen controller)
Ui = 4.935 V	Ui = 5.355 V
li = 3.266 A	li = 0.972 A
Pi = 3.917W	Pi = 1.676 W
$Ci = 22 \mu F$	Ci = 0
Li = 0	$Li = 1 \mu H$
Uo = 4.935 V	Uo = 0
Io = 3.275 A	
Po = 3.927 W	
Co = 78 μF	
$Lo = 3.3 \mu H$	

Variation 1 - This variation introduced the following changes:

- i. The introduction of the 19" and 24" display options, requiring a modification to the panel display board.
- ii. The name of the equipment was changed from 'Gecma Display Module 22' to 'Gecma Display Module yy', where 'yy' indicates the display size, 19", 22" or 24", the description was changed to reflect this name change.

Variation 2 - This variation introduced the following changes:

- i. The introduction of an alternative display glass, manufactured by Haller;
- ii. Modification to a user condition to include protection from ultraviolet light;
- iii. Minor track layout changes with no effect on safety-critical segregations.

Variation 3 - This variation introduced the following changes:

- i. Change of manufacturer's name from Measurement Technology Limited to Eaton Electric Limited
- ii. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-18:2009 was replaced by EN 60079-18:2015; the Condition of Manufacture is revised accordingly.
- iii. Minor mechanical change to the housing to allow re-routing of the LVDS cable.

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Variation 4 - This variation introduced the following changes:

- i. Increase in the maximum ambient temperature of the module to +75°C to give a new ambient temperature range of -30°C to +75°C.
- ii. The introduction of a new low temperature version of the 24" module model that had a temperature range of -40°C to +75°C.

Variation 5 - This variation introduced the following changes:

- i. The following manufacturing location was recognised: S.C. Cooper Industries Romania S.R.L, Zona Industriala Vest, Str. III Nr. 12, 310510 Arad, Romania.
- ii. Administrative changes to certification label drawing.

#### 14 DESCRIPTIVE DOCUMENTS

#### 14.1 Drawings

Refer to Certificate Annexe.

## 14.2 Associated CSA Reports and Certificate History

Issue	Date	Report number	Comment
0	05 December 2014	R70005200C	The release of the prime certificate.
1	21 September 2015	R70023948A	The introduction of Variation 1.
2	10 June 2016	R70073724A	This Issue covers the following changes:
			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.)
			<ul> <li>The introduction of Variation 2.</li> </ul>
3	16 December 2016	R70096537C	The introduction of Variation 3.
4	18 April 2019	R70203365C	The introduction of Variation 4.
5	31 October 2019	1082	Transfer of certificate Sira 14ATEX5063X from Sira
			Certification Service to CSA Group Netherlands B.V.
6	07 February 2022	R80110233A	The introduction of Variation 5.
			Note - Issue 5 of the certificate incorrectly shows Issue
			4 in the page headers and incorrect date of issue.

- 15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)
- 15.1 The Display Module shall only be powered from an MTL PSU Module, Sira 14ATEX5061X.

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- 15.2 The Display Module shall be housed in an enclosure that provides protection against damage to the cables and additionally protects the exposed casting compound at the filling hole from impact and direct exposure to ultra-violet light.
- 15.3 The enclosure is manufactured from aluminium alloy. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation.
- 15.4 The intrinsically safe circuit is not isolated from the enclosure; this shall be considered during installation.
- 15.5 The installation of the low temperature version of the Display Module yy (ambient temperature range of -40°C to +75°C) shall ensure that apertures that are in the back of the enclosure are not be exposed to moisture.

#### 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.

### 17 CONDITIONS OF MANUFACTURE

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Certificates.
- 17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

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# **Certificate Annexe**

Certificate Number:	Sira 14ATEX5063X
Equipment:	Gecma Display Module yy
Applicant:	Eaton Electric Limited



#### Issue 0

Drawing no.	Sheets	Rev.	Date (Sira stamp)	Title
11-500474	1 to 15	2	01 Oct 14	Display Module 22, artwork
CI6813-620	1 to 5	A.1	01 Oct 14	Display Module 22, sector diagram and schematic
CI6813-621	1 of 1	A.0	01 Oct 14	Display Module 22, critical component list
CI6813-624	1 to 3	A.5	20 Oct 14	Display Module 22, general assembly
CI6813-625	1 of 1	A.0	01 Oct 14	Display Module 22, marking
CI6813-626	1 of 1	A.0	07 Oct 14	Display Module, cable assembly TS controller to touchscreen
CI6813-627	1 of 1	A.0	07 Oct 14	Display Module, cable assembly COM to TS controller

#### Issue 1

Drawing no.	Sheets	Rev.	Date (Sira stamp)	Title
CI6813-620	1 to 5	1	08 Sep 15	Display Module, sector diagram and schematic
CI6813-621	1 of 1	1	08 Sep 15	Display Module, critical component list
CI6813-622	1 to 15	2	08 Sep 15	Display Module, artwork
CI6813-624	1 to 4	1	08 Sep 15	Display Module, general assembly
CI6813-625	1 of 1	1	08 Sep 15	Display Module, marking
CI6813-628	1 to 4	1	08 Sep 15	Display Module 19, general assembly
CI6813-630	1 to 4	1	08 Sep 15	Display Module 24, general assembly

## Issue 2

Drawing no.	Sheets	Rev.	Date (Sira stamp)	Title
CI6813-622	1 to 15	3	18 May 16	Display Module, artwork
CI6813-624	1 to 4	2	17 May 16	Display Module 22, general assembly
CI6813-628	1 to 4	2	17 May 16	Display Module 19, general assembly
CI6813-629	1 to 4	2	17 May 16	Display Module 24, general assembly

Drawing 11-500474 is replaced by drawing CI6813-622.

#### Issue 3

Drawing no.	Sheets	Rev.	Date (Sira stamp)	Title
CI6813-624	1 to 4	3	01 Dec 16	Display Module 22, general assembly
CI6813-625	1 of 1	2	01 Dec 16	Display Module, marking
CI6813-628	1 to 4	3	01 Dec 16	Display Module 19, general assembly
CI6813-629	1 to 4	3	01 Dec 16	Display Module 24, general assembly

#### Issue 4

Drawing no.	Sheets	Rev.	Date (Sira stamp)	Title
Cl6813-629	1 to 4	4.1	16 Apr 19	GA Gecma 24" Display Assy
Cl6813-625	1 of 1	3	16 Apr 19	Gecma Display Module Certification Label Details - SITA

Issue 5 – No new drawings were introduced.

## Issue 6

Drawing	Sheets	Rev.	Date (Stamp)	Title
CI6813-625	1 of 1	4	27 Jan 22	GECMA DISPLAY Module Certification Label Details - SIRA

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