



EU-TYPE EXAMINATION CERTIFICATE

Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014

EU-Type Examination Certificate Number: **Sira 14ATEX2054X** Issue: **4**

Equipment: **Cargo Temperature Unit, models GC-300 and GC-306**

Manufacturer: **Kongsberg Maritime AS**

Address: **Skonnertvegen 1
7053 Ranheim
Norway**

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

CSA Group Netherlands B.V., Notified Body No. 2813 in accordance with Article 17 of the 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.

The examination and test results are recorded in the confidential reports listed in item 16.2.

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 EN 60079-11:2012 IEC 60079-11:2023 Edition 7.0

Where additional criteria beyond those given here have been used, they are listed in item 18 in the Schedule.

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed in item 17 of this certificate.

This EU-Type Examination Certificate relates only to the technical design 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.

The marking of the product shall include the following (additional marking is provided in the Schedule as a part of item 15, if applicable):



II 1 G

Ex ia IIC T4 Ga

Ta = -45°C to +85°C

Signed:  M Halliwell
Title: Senior Director of Operations
Date: 04 September 2025



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SCHEDULE

14 EU-Type Examination Certificate Number: Sira 14ATEX2054X Issue: 4

15 Description:

The GC-300/GC-306 Cargo Temperature Unit is a temperature transmitter and signal converter with HART output, primarily intended for use in cargo tanks for liquid gas. The GC-300 can connect up to three Pt-sensors, and GC-306 can connect up to six Pt-sensors. The GC-300 transmitter is enclosed in a stainless steel housing, while the GC-306 is enclosed in a housing made of polystyrene.

In addition, the difference between GC-300 and GC-306 is the shape of the PCB, and some minor changes to the circuitry. The GC-300 is circular in shape intended for a deck-mounted enclosure. The GC-306 is rectangular in shape intended for cabinet-mounting.

The equipment has the following entity parameters:

GC-300		
X4 from associated apparatus (typically GLK-300)	X1 to X3 (Pt-sensor)	
Ui = 28 V Ii = 160 mA Pi = 850 mW Ci = negligible Li = negligible	Uo = 28 V Io = 30 mA Po = 206 mW Co = 83 nF Lo = 41 mH	

GC-306		
X8 from associated apparatus (typically GLK-300)	X1 to X6 (Pt-sensor)	X7 to optional sensor
Ui = 28 V Ii = 160 mA Pi = 850 mW Ci = negligible Li = negligible	Uo = 28 V Io = 30 mA Po = 206 mW Co = 83 nF Lo = 41 mH	Uo = Ui Io = Ii Po = Pi Ci = negligible Li = negligible

Variation 1 - This variation introduced the following change:

i. The applicant's address was changed:

From:

Kongsberg Maritime AS
Haakon VII's gt. 4
N-7005 Trondheim
Norway

To:

Kongsberg Maritime AS
Skonnertvegen 1
7053 Ranheim
Norway

Variation 2 - This variation introduced the following changes:

- Following appropriate assessment to the latest technical knowledge, EN 60079-0:2012 was replaced by EN IEC 60079-0:2018.
- Minor drawing updates.

Variation 3 - This variation introduced the following changes:

- Following appropriate assessment to the latest technical knowledge, IEC 60079-11:2023 Edition 7 was added in addition to EN 60079-11:2012.
- Minor drawing updates.
- Product description updated for correctness.



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16 Drawings and documents:

16.1 Technical documents:

Refer to Certificate Annex.

16.2 Associated reports and certificate history:

Issue	Date	Report number	Comment
0	13 January 2015	R70004825A	The release of the prime certificate.
1	03 August 2017	R70142089A	This Issue covers the following changes: <ul style="list-style-type: none">• EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. <i>(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.)</i>• The introduction of Variation 1.
2	15 October 2019	0832	Transfer of certificate Sira 14ATEX2054X from Sira Certification Service to CSA Group Netherlands B.V.
3	09 December 2021	R80103737A	The introduction of Variation 2.
4	04 September 2025	R80251935A	The introduction of Variation 3.

17 Specific conditions of use (denoted by "X" after the certificate number):

17.1 The supply to the GC-300 or GC-306 shall be resistive, such that $R_{source} \geq U_o/I_o$.

17.2 The GC-306 shall be installed in an enclosure that complies with the requirements of IEC/EN 60079-14 for the zone of use, with a degree of protection of IP54 minimum.

17.3 The Pt-sensors connected to the GC-300/GC-306 shall have their circuits isolated from earth; this shall be proved by applying a test voltage of 500 Vac between the circuit and the enclosure of the probe for 60 s. Alternatively, a voltage of 20% higher may be applied for 1 s. There shall be no evidence of flashover or breakdown and the maximum current flowing shall not exceed 5 mA.

18 Essential health and safety requirements of Annex II (EHSRs):

The relevant EHSRs that are not addressed by the standards listed in item 9 of this certificate have been identified and conformity of the product demonstrated in the reports listed in item 16.2.

19 Remarks and additional information:

The use of this certificate is subject to the regulations applicable to holders of CSA Group Netherlands B.V. certificates.

Compliance of the product with the applicable safety requirements of the relevant industrial standards has not been verified and is not covered by this certificate.

19.1 Conditions of manufacture:

19.1.1 In accordance with IEC 60079-11:2023 clause 9.6, each manufactured item shall be subjected to a dielectric strength test at 500Vac for 60s between the circuit (connector X4 terminals 1 and 2 connected together) and the metallic enclosure.



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- 19.1.2 In accordance with IEC 60079-11:2023 clause 10.4, each manufactured item shall be subjected to an inspection for encapsulation. No damage shall be evident, such as cracks in the compound, exposure of the encapsulated/coated parts, flaking, inadmissible shrinkage, swelling, decomposition, failure of adhesion or softening.



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Certificate Annexe

Document History

Issue – 0

Documents Introduced or Revised

Drawing no.	Sheets	Rev.	Date (Sira stamp)	Title
7212-475.000	1 to 6	C	09 Jan 14	PCB artwork
7212-475.900	1 of 1	A	09 Jan 14	PCB specification
7212-475.901	1 to 3	C	09 Jan 14	Bill of material
E-2692	1 of 1	C	09 Jan 14	Marking
GC-217	1 of 1	E	09 Jan 14	General assembly
GC-225	1 of 1	B	09 Jan 14	Encapsulation
GC-228	1 of 1	B	09 Jan 14	Schematic
GL-2513	1 of 1	C	09 Jan 14	Control drawing
368251	1 of 1	A	09 Jan 14	General assembly
380109	1 of 1	A	09 Jan 14	Control drawing
7212-474.000	1 to 7	B	09 Jan 14	PCB artwork
7212-474.900	1 of 1	A	09 Jan 14	PCB specification
7212-474.901	1 to 4	B	09 Jan 14	Bill of material
E-2719	1 of 1	B	09 Jan 14	Marking
GC-227	1 of 1	B	09 Jan 14	Schematic

Issue - 1

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
E-2692	1 of 1	D	09 Jun 17	Label for Temperature Transmitter type GC-300
E-2719	1 of 1	C	09 Jun 17	Label for Temperature Transmitter type GC-306

Issue - 2 - No new drawings were introduced.

Issue - 3

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Stamp)	Title
7212-475.000	1 to 6	D	29 Nov 21	GCB-303 PCB artwork
7212-475.900	1 of 1	B	29 Nov 21	GCB-303 PCB specification
GC-217	1 of 1	G	29 Nov 21	General Assembly
GL-2735	1 of 1	C	29 Nov 21	Safety Control drawing
380109	1 of 1	B	29 Nov 21	Safety Control drawing
7212-474.000	1 to 6	D	29 Nov 21	GCB-306 PCB artwork
7212-474.901	1 to 4	C	29 Nov 21	GCB-306 Bill of materials
GC-227	1 of 1	C	29 Nov 21	GCB-306 Schematic

Issue - 4

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Stamp)	Title
D-E-2692	1 of 1	E	18 Aug 25	Label for Temperature Transmitter type GC-300
GL-2735	1 of 1	G	18 Aug 25	Safety Control drawing
380109	1 of 1	D	18 Aug 25	Safety Control drawing
110-0128826	1 to 6	C	18 Aug 25	GC-300 and GC-306 Potting – Technical Note

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