[1]

EU-TYPE EXAMINATION CERTIFICATE

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

[3] EU-Type Examination Certificate Number: **Presafe 14 ATEX 5216** **Issue 04**

[4] Product: **KM control & monitoring system cabinet**

[5] Manufacturer: **Kongsberg Maritime AS**

[6] Address: **Kirkegårdsveien 45, Carpus, P.O. box 483, 3601 Kongsberg, Norway.**

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

[8] DNV Product Assurance AS, notified body number 2460, in accordance with Article 17 and Article 21 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.

The examination and test results are recorded in confidential reports listed in item 16.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with: **EN IEC 60079-0: 2018, EN 60079-1:2014, EN 60079-11:2012, EN 60079-18: 2015, EN 60079-15: 2010 and EN 60079-7: 2015**

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

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

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product in accordance to 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:

Marking of RIO cabinet	**II 2 (1) (2) G**	**Ex db eb ib [ia Ga] [ib Gb] IIC T4 Gb -20°C ≤ Ta ≤ 55°C**
	II 3 (1) (2) G	**Ex db eb ec ia ib ic nA nC [ia Ga] [ib Gb] IIC T4 Gc -20°C ≤ Ta ≤ 55°C**
Marking of CAAP cabinet	**II 2 G**	**Ex db eb mb IIB T5 Gb -20°C ≤ Ta ≤ 55°C**

Date of issue:
2022-06-14

NORSK AKKREDITERING
PROD 021

Asle Kaastad
For DNV Product Assurance AS
The Certificate has been digitally signed.
See www.dnv.com/digitalsignatures for info

[13] **Schedule**

[14] **EU-Type Examination Certificate No: Presafe 14 ATEX 5216 Issue 04**

[15] **Description of Product**

The investigation covers KM Control & Monitoring system cabinet series which is named RIO (Remote I/O), and Control & Signalling cabinet series which is named CAAP (Critical Alarm & Action Panel). The cabinets are built up by separately Ex certified parts and Ex e enclosure. The system RIO cabinets are built up for multipurpose application, but typically is used as communication system and/or control & monitoring system. The CAAP cabinets consist normally of small built-in control devices such as switches, pilot light and sounder. The CAAP cabinets are used as Control Panel as part of the complete communication system and may exist in variants. The cabinets have different sizes as listed in the respective certificates. Internal electronics are build up by one or several BusRail of I/O modules. Each module has 4 - 16 channels, depending type of signals. Each BusRail of modules are controlled and powered by one or two CPM (CPU & Power Module).

Creepage and clearance distance shall be maintained according to Table 1 of EN 60079-7. Appropriate distance between intrinsically safe and non-instrinsically safe apparatus shall be maintained as required by EN 60079-11.

Following cabinet types in the RIO series and CAAP series are covered by this certification:

RIO Type	Enclosure	Dimensions (HxWxD cm)	CPM *)	I/O modules *)	Electrical data	Ex protection
1	Delvalle TB158045EX/..	150x80x45	Max 4	Max 16	230Vac, 1.5A	[1])
2	Delvalle TB138030EX/..	130x80x30	Max 4	Max 16	230Vac, 1.5A	[1])
3	Delvalle TB401330EX/..	40x130x30	Max 2	Max 8	230Vac, 0.75A	[1])
4	Delvalle TB208045EX/..	200x80x45	Max 6	Max 22	230Vac, 2.25A	[1])
5	Delvalle TB608025EX/..	60x80x25	Max 2	Max 4	230Vac, 0.7A	[1])
CAAP Type	**Enclosure**	**Dimensions (HxWxD cm)**	**Lamps**	**Switch**	**Electrical data**	**Ex protection**
1	Delvalle LX808025EX [2])	80x80x25	Max 40	Max 20	24Vdc, 1A	[1])
2	Delvalle LX606025EX [2])	60x60x25	Max 30	Max 15	24Vdc, 1A	[1])
3	Delvalle LX356025EX [2])	35x60x25	Max 20	Max 10	24Vdc, 1A	[1])

[1]) The dedicated Ex protection concept is determinded based on the end configuration of used parts/modules. See part [12] for markings. The RIO cabinets may have a smaller number of optional control devices e.g. indicating lamp/display and/or switches building into enclosure. Other cabinet of Delvalle Tribex (TB) series with equivalent or larger size may be used.

[2]) Other cabinet of Delvalle Luxorex series and GEOEX series with equivalent or larger size may be used.

List of compoentns to be used is referred in 397374, System description document. This certification & investigation are only valid when parts which comprises the end-product, are used within their condition for acceptance of their respective certification. With regards to applicable Ex requirements no condition for safe use must be exceeded, all special condition of use from the listed certification must be followed in details in the end-configuration of system/product.

Type designation
RIO cabinet series: RIO Type 1 to Type 5
CAAP cabinet series: CAAP Type 1 to Type 3.

Electrical Data
230Vac, up to 2.25A for RIO cabinet.
24Vdc, 1A for CAAP cabinets.
Electrical data are detailed in part [15] Description of Equipment or Protective System.

Degrees of protection (IP Code)
Min IP20 for system modules
Min IP65 for cabinets

Ambient temperature:
-20°C to +55°C

Routine tests
Dielectric strength test according to clause 6.1 of EN 60079-7: 2015 shall be performed to the relevant parts in the assembly. Relevant test voltage shall be considered accordingly.

[16] **Report No.**: 319893

[17] **Specific Conditions of Use**
None

[18] **Essential Health and Safety Requirements**

Met by compliance with the requirements mentioned in item 9.

[19] **Drawings and documents**

Number	Title	Rev.	Date
397374	*System Description	E	December 2021
397775	Operating Instructions	A	October 2014
398305	*RIO type 1	D	03.12.2021
398306	RIO type 2	B	17-09-2015
398307	RIO type 3	A	05.02.2015
398308	RIO type 4	A	17.10.2014
399961	RIO type 5	A	02.12.2014
399962	Typical CAAP	A	02.12.2014
397321	*Marking for Ex Control & Monitoring Cabinets	B	13.12.2021
400609	*KM Ex CAAP Product Label	B	03.12.2021

[20] **Certificate History**

Issue	Description	Issue date	Report no.
00	Original issue	D0001499-00	2015-02-23
01	Assessment for additional optional components	D0001499, Rev.01	2015-10-05
02	Addition of new certified component , update to Directive 2014/34/EU.	D0001499, Rev .02	2016-05-26
03	Assessment for additional heater and thermostat assembly	D0001499, Rev.03	2018-03-06
04	Update to latest EN 60079-0:2018. Minor change on documents and components.	2022-06-14	319893

END OF CERTIFICATE