

TYPE EXAMINATION CERTIFICATE

- [2] EQUIPMENT OR PROTECTIVE SYSTEM INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES DIRECTIVE 2014/34/EU
- [3] Type Examination Certificate Number: **Presafe 18 ATEX 12094X Issue 1**
- [4] Product: **Built-in modules for communication system**
- [5] Manufacturer: **Kongsberg Maritime AS**
- [6] Address: **Kirkegårdsveien 45, Carpus, P.O. box 483
NO-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 GL Presafe AS 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 Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.
- The examination and test results are recorded in confidential reports listed in section 16.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0:2012/A11:2013 and EN 60079-7: 2015
- [10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
- [11] This TYPE EXAMINATION CERTIFICATE relates only to the design of the specified equipment and not to specific items of equipment subsequently manufactured.
- [12] The marking of the product shall include the following:

 **II 3 G Ex ec IIC T4 Gc -20°C ≤ Ta ≤ +55°C**

Date of issue:
2019-07-03



Bjørn Richard Spongsveen
For DNV GL Presafe AS
The Certificate has been digitally signed.
See www.dnvgl.com/digitalsignatures for info



[13] **Schedule**

[14] **Type Examination Certificate No:** Presafe 18 ATEX 12094X Issue 1

[15] **Description of Product**

The investigated modules are I/O module, termination unit or controller modules, intended for different application as parts of communication system/station. The built-in modules covered by this certificate are:

RDIO420S	Remote Digital Input Output	24Vdc, max 0.9A, power dissipation 10W
RMP420	Remote Multipurpose I/O	24Vdc, 10W, Loop current max 1A per channel
RMP422i	Remote Multipurpose I/O	24Vdc, 10W, Loop current max 1A per channel
RMP422Si	RMP422S (S version)	24Vdc, 10W, Loop current max 1A per channel
RCU502i	Remote Control Unit	24Vdc, 20W power dissipation
RSER200-4	Serial Line Interface	24Vdc, 160mA
RHUB200-5	RBUS Hub	24Vdc, 100mA
BUS-TERM	BUS-Termination	24Vdc
RMC-TERM	Remote Media Converter Termination	24Vdc
RMC-ST	Remote Media Converter-ST	24Vdc, 80mA
EFI-16	Earth Fault Indicator	24Vdc, max 100mA

External cabinet is to be provided in the end application. Marking code with X-suffix indicates Specific condition of use. Ambient range is specified for.
 Service temperature is determined to be $T_s = 70^\circ\text{C}$. At end-installation of the modules in a cabinet, no enclosure's part in normal operation, shall have temperature exceeding T_s . The max ambient 55°C is specified for the end-product which is built up by enclosure and the modules.

Type designation

See above

Electrical Data

See above

Degrees of protection (IP Code)

(Refer to Specific condition of use)

Ambient temperature:

$-20^\circ\text{C} \leq T_a \leq +55^\circ\text{C}$

Routine tests

None

[16] **Report No.:** D0003961-00

[17] **Specific Conditions of Use**

- The modules must be built into a cabinet which complies with requirements of the standards EN 60079-0 & EN 60079-7.
- The modules must be used in an area of not more than pollution degree 2
- Interface to the EFI-16 in hazardous area zone 2 shall only be by the analogue output terminals AO1 (0-10V) or AO2 (+/-10V). The relay output terminals shall not be used.
- Connecting / disconnecting wires or cables and operating buttons / switches are not allowed when the module is energized unless area is known to be non-hazardous.
- All Network and Serial line cables connected to the RJ45 connectors on the RCU shall be cabinet internal. No direct field cables shall be used.
- All screw terminals are 2.5 mm² that must be fastened with a torque of 0.4-0.5 Nm.

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

Essential Health and Safety Requirements (EHSRs) are covered by the standards listed at item 9

[19] **Drawings and documents**

Title	Number	Rev.	Date
Document List	436933	E	July 2019

[20] **Certificate History**

Issue	Description	Issue date	Report no.
0	Original issue *)	2018-06-07	D0000930-01
1	Minor technical changes for some modules. The changes do not make impact on electrical parameters and the type of protection.	2019-07-03	D0003961-00
*) Transition from former certificate Nemko 14 ATEX 1504X to Presafe certificate. Refer to Project History in associated test report			

END OF CERTIFICATE