

[1]

# EU-TYPE EXAMINATION CERTIFICATE

[2] Product Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

[3] EU-Type Examination Certificate Number: **Presafe 18 ATEX 13741X** **Issue 1**

[4] Product: **SENTRY GB-300 Wireless Temperature Measuring System**

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

[6] Address: **Skonnertvegen 1  
7053 Ranheim  
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 and EN 60079-11:2012**

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 specified in the schedule to 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:

 **II 2(1) G Ex db [ia Ga] IIC T6 Gb -20°C≤Ta≤+60°C**

Date of issue:  
2022-03-18



Asle Kaastad  
For DNV Product Assurance AS  
The Certificate has been digitally signed.  
See [www.dnv.com/digitalsignatures](http://www.dnv.com/digitalsignatures) for info



[13] **Schedule**

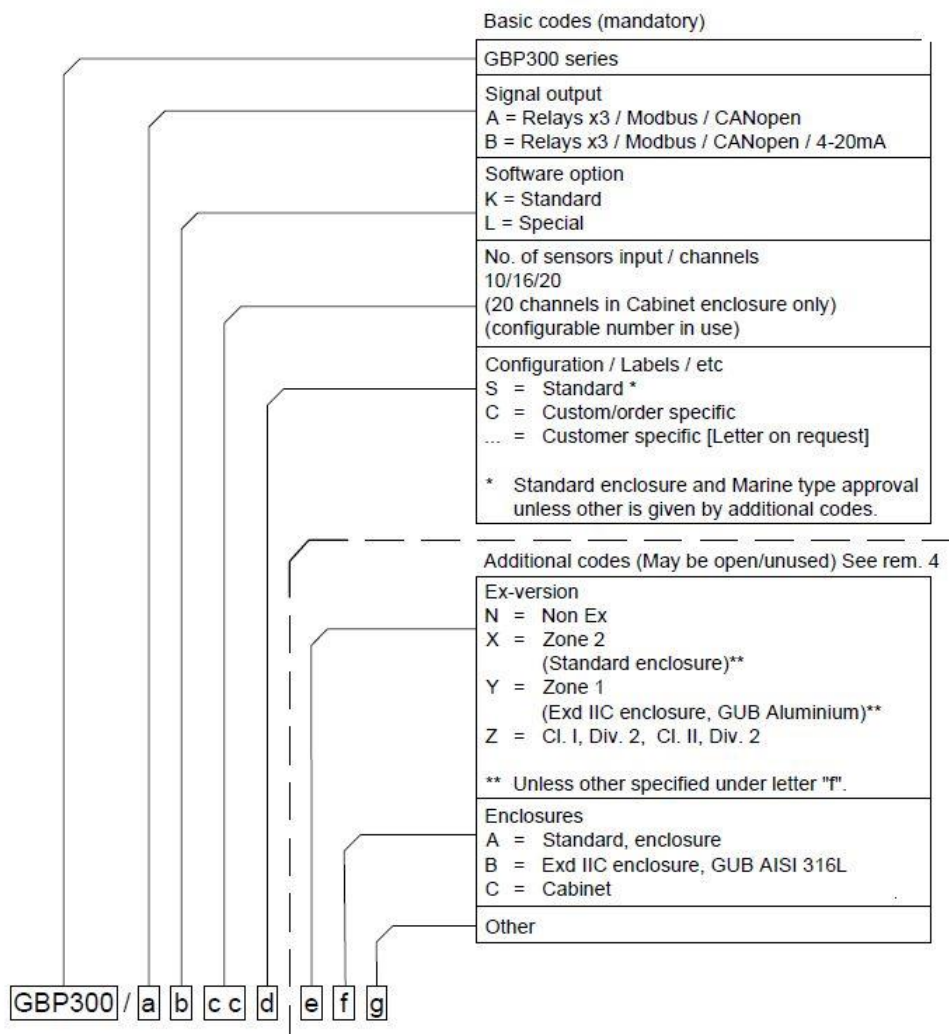
[14] **EU-Type Examination Certificate No:** Presafe 18 ATEX 13741X Issue 1

[15] **Description of Product**

The system is based on radar technology. This enables the possibility of using high quality wireless passive sensors with no need for external power sources. The signal-processing unit generates a low energy and high frequency radar pulse, which is transmitted to the wireless sensor via the stationary antenna. When the wireless sensor passes the stationary antenna, it is hit by this radar pulse and immediately reflects a pulse back to the signal-processing unit. The temperature of the sensor uniquely determines the shape and characteristics of this reflected pulse. A software algorithm then calculates the temperature and transmits this to the engine monitoring and control system.

**Type designation**

SENTRY SPU - GBP300/abccdefg



**Electrical Data**

Power supply: 24VDC nom. (18-32VDC)  
Maximum safe voltage  $U_m$ : 250VAC  
Max RF pulse power out 100mW , mean RF power 140  $\mu$ W, 856MHz

**Degrees of protection (IP Code)**

IP66/IP67 accordance with IEC 60529

**Ambient temperature:**

-20°C to +60°C

**Routine tests**

None

[16] **Report No.:** 348541  
**Project No.:** PRJN-348541

[17] **Specific Conditions of Use**

- \* The equipment does not fulfil the dielectric strength requirement according to Clause 6.3.13 of IEC 60079-11:2011. Special consideration must be taken under installation. See Safety Control Drawing no. GB-1233.
- \* The width of the flameproof joints is superior to those specified in the tables of IEC 60079-1 standard: contact the original manufacturer for any repairs of the flameproof joints.
- \* Separate IECEx / ATEX certified Ex db IIC Gb IP66/67 cable gland or plugs shall be used.

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

Met by compliance with the requirements mentioned in item 9.

[19] Drawings and documents

Number	Title	Rev.	Date
7212-500.000	GBA-300 PCB layout	B	12.03.2019
7212-500.900	GBA-300 PCB specification	A	01.11.2018
7212-500.911	GBA-300 Bill of Materials EX variant 16 channel	C	27.08.2021
7212-500.931	GBA-300 Bill of Materials EX variant 10 channel	B	18.08.2021
GB-1204	GBA-300 Schematics	B	25.05.2018
E-2782	Name label zone 1 and zone 2	G	12.01.2022
GB-1233	Safety control drawing	C	12.01.2022
GB-1236	Framework drawing GB300 zone 1	B	02.03.2020
447662	Instructions for using GBP300 in hazardous area	C	01.12.2021
448173	GBA-300 coating information	A	15.05.2019
449688	GBP300 RF output and GBS-1 Simple apparatus	C	12.11.2019
452269	GBP-300 cross section area drawing	B	11.12.2020
GB-1235	GBP300 Ordering key	E	20.09.2021

[20] Certificate History

Issue	Description	Issue date	Report no.
0	Original issue	2020-04-24	D0003233
1	Updated of documentation as marking plate, instructions, materials and safety control drawing.	2022-03-18	348541

END OF CERTIFICATE