

# EU-TYPE EXAMINATION CERTIFICATE

- [2] EQUIPMENT OR PROTECTIVE SYSTEM INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES DIRECTIVE 2014/34/EU
- [3] EU-Type Examination Certificate Number: **Presafe 16 ATEX 7965** **Issue 2**
- [4] Product: **Diode Safety Barriers**
- [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 GL Presafe AS, notified body number 2460, in accordance with Article 17 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 section 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**
- [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. 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 (1) G [Ex ia Ga] IIC**

Date of issue:  
2021-01-28



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

[13] **Schedule**

[14] **EU-Type Examination Certificate No:** Presafe 16 ATEX 7965 Issue 2

[15] **Description of Product**

The DZ-120 is a single channel shunt diode safety barrier, intended for protecting a 2-wire, 4-20 mA/HART signal transmitter installed in hazardous area. The Zener Barrier is installed in safe area, designed to limit the amount of energy that could appear in an electric circuit that connects to instrumentation located in hazardous area.

**Type designation**

DZ-120

**Electrical Safety Parameters**

Maximum voltage  $U_m$ : 250 V AC

Maximum output voltage.	$U_o$ : 26.5 VDC
Maximum output current.	$I_o$ : 112 mA
Maximum output power.	$P_o$ : 0.74 W
Maximum external capacitance.	$C_o$ : 95 nF
Maximum external inductance.	$L_o$ : 2.8 mH
Maximum external inductance to resistance ratio.	$L_o/R_o$ : 48 $\mu$ H/ $\Omega$

**Ambient temperature:**

-20°C to +70°C

**Degrees of protection (IP Code)**

IP20

**Routine tests**

Manufacturer shall carry out routine test according to EN 60079-11: 2012 clause 11.1.1

[16] **Report No.:** 198876  
**Project No.:** PRJN-198876-2020-PA-NOR

[17] **Specific Conditions of Use**

None

[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**

Number	Title	Rev.	Date
7212-497.900	PCB specification	A	2015-10-23
DZ-060	Schematics dwg	A	2016-03-16
7212-497.000	PCB layout dwg	A	2016-04-06
7212-497.901	PCB BOM	A	2016-03-16
BOM DZ-120	Unit BOM	A	2015-12-11
E-2760	Label for DZ-120	E	2021-01-05
410221	DZ-110/U and DZ-120 coating info	A	2016-02-15
428687	Marking of DZ-120	A	2017-08-29

[20] **Certificate History**

Issue	Description	Issue date	Report no.
0	Original issue	2016-04-08	D0002147
1	Change of manufacturer address	2017-08-31	D0002147 rev.1
2	Changes concern update to latest standard of EN IEC 60079-0:2018 and correction of postal address.	2021-01-28	198976

END OF CERTIFICATE