DNV·GL

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 14 ATEX 4368** **Issue 4**

[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:

Ex II (1) G [Ex ia Ga] IIC

Date of issue:
2021-01-12

NORSK AKKREDITERING
PROD 021

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

DNV GL Presafe AS, Veritasveien 3, 1363 Høvik, Norway, Tel +47 67 57 88 00, www.dnvgl.com

[13] **Schedule**

[14] **EU-Type Examination Certificate No:** Presafe 14 ATEX 4368 Issue 4

[15] **Description of Product**

The DZ-110 Transmitter is a single channel shunt diode safety barrier intended for energising a 2-wire, 2 to 20 mA signal transmitter in hazardous areas, powered from an uncritical 24 VDC supply (18 to 35VDC). Base made of insulating material for rail mounting. Earth strap shall be connected to separate earth rail.

Type designation
DZ-110

Electrical Safety Parameters
Maximum voltage Um: 250V AC

Maximum output voltage.	Uo:	25,5V DC
Maximum output current.	Io:	122mA
Maximum output power.	Po:	0,78W
Maximum external capacitance.	Co:	104nF
Maximum external inductance.	Lo:	2,2mH
Maximum external inductance to resistance ratio.	Lo/Ro	45,9µH/Ω

Ambient temperature:
-20°C to +55°C

Type Identification
DZ-110/U

Electrical Safety Parameters
Maximum voltage Um: 250V AC

Maximum output voltage.	Uo:	25,2V DC
Maximum output current.	Io:	116mA
Maximum output power.	Po:	0,73W
Maximum external capacitance.	Co:	107nF
Maximum external inductance.	Lo:	2,6mH
Maximum external inductance to resistance ratio.	Lo/Ro	48,8µH/Ω

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**.: 198929
Project No.: PRJN-198929-2020-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
DZ-110			
DZ-110	BOM	A	2015-01-20
7212-196.900	PCB specification	-	2014-10-01
7212-196.901	PCB BOM	A	2015-01-20
DZ-051	Schematics dwg	B	2015-01-19
7212-196.107	PCB layout dwg (side A)	1	1997-02-27
7212-196.007	PCB layout dwg (Side B)	1	1997-02-27
E-2003	Marking label	D	2015-04-16
AU-0604	DZ-110 Transmitter Barrier, Kontrollrutine	B	2015-02-25
DZ-110/U			
7212-496.900	PCB specification	A	2015-10-23
DZ-059	Schematics dwg	A	2015-10-19
7212-496.000	PCB layout dwg	A	2015-10-23
7212-496.901	PCB BOM	A	2015-10-26
BOM DZ-110/U	Unit BOM	A	2016-01-29
E-2761	Marking label	D	2021-01-05
410221	DZ-110/U and DZ-120 coating info	A	2016-02-15
428616	Marking of DZ-110/U	A	2017-08-25

[20] **Certificate History**

Issue	Description	Issue date	Report no.
1	Original issue of principal ATEX certificate	2015-04-17	D0000975
2	Adding modified model DZ-110/U	2016-02-16	D0000975 Rev.1
3	Change of manufacturer address	2017-08-28	D0000975 Rev.2
4	Changes concern update to latest standard of IEC 60079-0:2018 and correction of postal address.	2021-01-12	198929

END OF CERTIFICATE