



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx PRE 14.0005

Issue No: 2

Certificate history:

Issue No. 2 (2017-08-28)

Status: **Current**

Issue No. 1 (2016-02-15)

Date of Issue: **2017-08-28**

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Issue No. 0 (2015-04-17)

Applicant: **Kongsberg Maritime AS**
Skonnertvegen 1
Trondheim
Norway

Equipment: **Diode Safety Barriers**

Optional accessory:

Type of Protection: **Ex i (Intrinsic Safety)**

Marking:

Model: DZ-110
[Ex ia Ga] IIC -20°C≤Ta≤+55°C

Model: DZ-110/U
[Ex ia Ga] IIC -20°C≤Ta≤+70°C

*Approved for issue on behalf of the IECEx
Certification Body:*

Bjørn Spongsveen

Position:

Certification Manager

*Signature:
(for printed version)*

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](#).

Certificate issued by:

DNV GL Nemko Presafe AS
Veritasveien 3
1363 Høvik
Norway





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Manufacturer: **Kongsberg Maritime AS**
Skonnertvegen 1
Trondheim
Norway

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[NO/PRE/ExTR15.0015/02](#)

Quality Assessment Report:

[DE/TUN/QAR12.0010/04](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

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 24VDC supply (18-35VDC). Base made of insulating material for rail mounting. Earth strap shall be connected to separate earth rail.

Model DZ-110

Maximum voltage U_m : 250VAC

Maximum output voltage U_o : 25,5VDC

Maximum output current I_o : 122mA

Maximum output power P_o : 0,78W

Maximum external capacitance C_o : 104nF

Maximum external inductance L_o : 2,2mH

Maximum external inductance to resistance ratio L_o/R_o : 45,9 μ H/ Ω

Model DZ-110/U

Maximum voltage U_m : 250VAC

Maximum output voltage U_o : 25,2VDC

Maximum output current I_o : 116mA

Maximum output power P_o : 0,73W

Maximum external capacitance C_o : 107nF

Maximum external inductance L_o : 2,6mH

Maximum external inductance to resistance ratio L_o/R_o : 48,8 μ H/ Ω

SPECIFIC CONDITIONS OF USE: NO



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Change of manufacturer address.