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Certificate No: LR24124403TA  
Issue Date: 10/10/2024 (Issue 0)  
Expiry Date: 09/10/2029  
Reference: TSO/24-022565

## LLOYD'S REGISTER TYPE APPROVAL – DESIGN APPRAISAL DOCUMENT

Issued by: HAMBURG TECHNICAL SUPPORT OFFICE

Issued to: NAME

For: SYSTEM; TYPES:

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register Type Approval System Procedure TA14 Version 04 (September 2020) and this Design Appraisal Document forms part of the Certificate.

### APPROVAL DOCUMENTATION

unnumbered	Type Approval Application Checklist	03.10.2024
439765	Request for Marine Services – Type Approval	10.10.2024
ETS 39787-20MK/JB	Design Appraisal Document of previous certificate no. LR2002815TA	15.04.2020
LR202815TA	LR Type Approval Certificate for Barrier Units DZ-110, DZ-110/U, DZ-120	15.04.2020
PRJ11100416436-2	Production quality assessment (PQA) report of Kongsberg Ranheim	21.06.2023
C561587	Certificate ISO 9001:2015 of Kongsberg Maritime AS, incl. locations listed in appendix	31.05.2023
397305/C	Material declaration / Declaration of Conformity	09.09.2021
P-DZ110U/CE Rev. C	Datasheet Transmitter Barrier Unit DZ-110/U	06.01.2021
P-DZ120/CE Rev. C	Datasheet Zener Barrier Unit DZ-120	06.01.2021
Presafe 14 ATEX 4368	EC-Type Examination Certificate (Issue 4) Diode Safety Barriers, type DZ-110 / DZ-110/U	12.01.2021
Presafe 16 ATEX 7965	EC-Type Examination Certificate (Issue 2) Diode Safety Barriers, type DZ-120	28.01.2021
IECEX PRE 14.0005	IECEX Certificate of Conformity (Issue 3) Diode Safety Barriers, type DZ-110 / DZ-110/U	12.01.2021
IECEX PRE 16.0020	IECEX Certificate of Conformity (Issue 2) Diode Safety Barriers Unit, type DZ-120	28.01.2021



Matthias Karg  
Specialist  
Electrotechnical Systems  
Hamburg Technical Support Office  
Lloyd's Register EMEA  
T +49 40 3497 0010 240  
E [matthias.karg@lr.org](mailto:matthias.karg@lr.org)

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**Supplementary Type Approval Terms and Conditions**

*Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.*

*Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.*

*Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations. Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the Lloyd's Register Type Approval System Procedure.*

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