

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Fire Detector**

with type designation(s)

SLR-E3NM, SLR-E-IS, SOC-E3NM, SOC-E3NM (WHT), DCD-R1EM, DCD-CE3M, DCD-1EM, DCD-AE3M, DCD-1E-IS, DRD-EM, YBO-R/5M, YBN-R/4M, YBN-R/6M, MBB-1, MCP1A, WCP1A

Issued to

**Hochiki Europe (UK) Ltd.
London, United Kingdom**

is found to comply with

DNV GL rules for classification – Ships**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.****Temperature B****Humidity B****Vibration A****EMC B****Enclosure Required protection according to the Rules shall be provided upon installation on board.**Issued at **Hamburg** on **2018-01-26**This Certificate is valid until **2019-03-09**.for **DNV GL**DNV GL local station: **Newcastle-upon-Tyne**Approval Engineer: **Heinz Scheffler****Joannis Papanuskas
Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

Smoke Detector:

SLR-E3NM: : Conventional optical smoke detector
SLR-E-IS: Intrinsically safe conventional optical smoke detector
SOC-E3NM: Conventional Photoelectric Smoke Detector
SOC-E3NM (WHT): Conventional Photoelectric Smoke Detector (Watertight)

Heat Detector:

DCD-R1EM, DCD-CE3M: Conventional high temperature heat detector
DCD-1EM, DCD-AE3M: Conventional heat detector

Flame Detector:

DRD-EM: Conventional flame detector
DCD-1E-IS: Intrinsically safe conventional rate of rise heat detector

Base:

YBN-R/4M, YBN-R/6M: Standard mounting base
YBO-R/5M: Mounting base with remote indicator output
YBN-R/4IS: Intrinsically Safe Mounting Base
MBB1: Marine back box
MBB2: Marine back box

Manual call point:

MCP1A: Manual call point, Type A
WCP1A with backbox: Waterproof manual call point, Type A, IP56

Application/Limitation

Eex ia IIC T5 (for "IS" types): tested and certify by EECS BASOIALEX1021, BASOIALEX1281

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNVGL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNVGL Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Type Approval documentation

Test Reports: TE 94412; 94410; 94411; 90716; 94408; 94409; 214876: 225839; 88577; 88579; 89111; 235603,101978111LHD-002d; 101978111LHD-014; 204016; 94410; 296268; 255345a; 103070255LHD-021; 103070255LHD-002; SW-P103234-1001 Issue:1; TE-P103234-1001 Issue:1
Documents: HA-01-590 ASSY PCB SOC-E3_E3N SERIES; HA-01-592 ASSY SOC-E3N_E3N(WHT)-ASSEMBLY; HA-01-592 ASSY SOC-E3N_SERIES, HA-08-121 SCHEMATIC SOC-E3(HFP)_E3N SERIES, HA-08-121_Schematic_Soc-e3_series; further documents according to submitted file (GL Project 20278-04HH)

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2016
EN 54-5 (2000)/A1(2002), EN 54-7 (2000)/A1(2002)/A2(2006), EN 54-10 (2002)/A1(2005), EN 54-11 (2001)/A1(2005)

Marking of product

The products to be marked with:

- Model name
- Manufacturer name
- Serial number

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE