



Certificate No:
TAF00001S8

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Class B Recesses for Light Fittings, Ventilation Units and similar

with type designation(s)

Light and electrical fittings, models: GRX3, DL42-R, DL60-R, TL11-R, GIM, AL40-R, EL40, DL70-R, DL41-R, AL40-R GP and EB3

Issued to

Glamox AS
Molde, Norway

is found to comply with

DNV rules for classification – Ships

DNV offshore standards

DNV statutory interpretations DNV-SI-0364 – SOLAS interpretations, Edition July 2021

Application :

Approved for use in B-15 class ceiling.

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Høvik** on **2023-03-02**

for **DNV**

This Certificate is valid until **2028-03-01**.

DNV local unit: **Norway NB**

Approval Engineer: **Karolina Kusmider**

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Jowita Permoda
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

“Light and electrical fittings, models: GRX3, DL42-R, DL60-R, TL11-R, GIM, AL40-R, EL40, DL70-R, DL41-R, AL40-R GP and EB3”

Light and electrical fixtures installed in cut-outs in approved B-15 ceilings.

The fittings GRX3, DL60-R, TL11-R, GIM, AL40-R, DL70-R155, DL41-R, EB3 and AL40-R GP are covered by 50 mm thick insulation box. The insulation was of type ‘SeaRox SL 620’ with density 100 kg/m³ (manufactured by Rockwool) glued with Conlit and placed on top side of the ceiling. In addition, a 50 mm thick insulation mat of type ‘ProRox WM 967’ with density 100 kg/m³ (manufactured by Rockwool) shall be provided between the insulation box and the ceiling panel.

DL42-R is not covered by an insulation box because the fitting itself is equipped with insulation materials. An intumescent material, Flaton-flex-A, is factory-wrapped around the fitting as a seal against the ceiling panel.

EL40 was covered only by 50 mm thick insulation sheet type SeaRox SL 620 with density 100 kg/m³ (manufactured by Rockwool).

For further details, see drawings listed under Type Approval documentation below.

Application/Limitation

Approved for use in B-15 class ceilings.

Table 1

Type	Max. Cut out size (W x L) [mm]	Max. Weight [kg]	Insulation box inner dimensions (W x L x H) [mm]*
GRX3	240 x 1315	17,1	370 x 1415 x 200
DL42-R	Ø77	1,0	-
DL60-R	Ø155	2,2	250 x 480 x 170
TL11-R / GIM	285 x 1240	8,5	405 x 1380 x 150
AL40-R	175 x 920	4,3	360 x 1085 x 120
EL40	46 x 380 / Ø50	0,5	-
DL70-R	Ø155	1,4	250 x 600 x 150
DL41-R	Ø155	0,5	240 x 240 x 110
AL40-R GP	175 x 920	6,6	340 x 1060 x 140
EB3	Ø128	1,4	230 x 230 x 160

***Height including ceiling thickness. Width and length can be reduced in the same proportion as the fittings.**

Maximum width of panels: 500 mm

Minimum distance between the recesses should not be less than 200 mm.

The manufacturer of ceiling is responsible to document that the structural and thermal integrity is maintained after fitting the light fixtures into the ceiling.

The arrangement is subject for approval in each case.

Each product is to be supplied with its manual for installation, use and maintenance.

Type Approval documentation

Certification in accordance with Class Programme DNV-CP-0338, September 2021.

Test report No. 150070-28-T3 Rev. 1 dated 07 June 2022 from RISE Fire Research AS, Tiller, Norway.

Test report No. 150070-28-T4 Rev. 1 dated 10 March 2022 from RISE Fire Research AS, Tiller, Norway.

Assessment Report No.150101-61 Version 1 dated 25 August 2022 from RISE Fire Research AS, Tiller, Norway.



Job Id: **262.1-037485-1**
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Drawings no. 11902199 Rev.0, 11902181 Rev.0 dated 19.01.2022 from manufacturer.
Drawings no. 11904214 Rev.1, 11904215 Rev.1, 11904216 Rev.0, 11904217 Rev.0, 11904278 Rev.0, 11904207 Rev. 0 dated 1.03.2022 from manufacturer.
Drawings no. 11904210 Rev.0, 11904204 Rev.0, 11904205 Rev.0 dated 02.03.2022 from manufacturer.
Drawing no. 11902213 Rev.0 dated 21.01.2022 from manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code part 3.

Marking of product

The product or packing is to be marked with name of manufacturer, type designation and fire-technical rating.

Periodical assessment

DNV's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNV-CP-0338, Section 4.