

TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MERB00008FC
Revision No:
0

This Certificate is issued by DNV UK Limited based on authorisation of the Maritime & Coast Guard Agency (MCA) as an UK Approved Body to undertake conformity assessments on marine equipment in accordance with the requirements of the Merchant Shipping (Marine Equipment) Regulations 2016 as amended.

This is to certify:

That the Penetrations through "A" class divisions: electric cable transits

with type designation(s)
WGS ES

Issued to
Roxtec International AB
Karlskrona, Sweden

is found to comply with the requirements in the following Regulations/Standards:
Regulation **MSN 1874 Amendment 9**,
item No. UK/3.26a. SOLAS 74 as amended, Regulation II-2/9, IMO 2010 FTP Code and IMO MSC.1/1488

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2029-04-22**.

Issued at **London** on **2024-11-21**

DNV local unit:
Denmark CMC



for **DNV UK Ltd.**

Approval Engineer:
Karolina Kusmider

Approved Body No.: **0097**

Mydlak-Röder, Christine
MER Service Responsible



**Maritime &
Coastguard
Agency**

UK Approved Body Authorised
by the MCA

This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the approved body named on this certificate.

During the period of validity of this certificate the applicable regulations (international conventions and the relevant resolutions and circulars of the IMO) and testing standards may change, therefore the product conformity may need to be re-assessed by the Approved Body.

"The Mark of Conformity" may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D, E or F) of Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended is fully complied with and controlled by a written inspection agreement with an approved body. In case limitations of use apply, these should be indicated in the Annex.

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

“WGS ES”

is designed for routing non-metallic fiber optic cables into a shielded enclosure with maintaining the enclosure’s electromagnetic integrity.

The Roxtec WGS ES are available in both welded and bolted version and could be installed with single, multiple or without any cables.

For more details, see drawings listed under Type Examination documentation below.

Application/Limitation

Approved for use as empty, single or multiple cable penetration system in A-60 steel bulkheads/decks. Other applications are subject to case-by-case approval.

Class A-0, A-15 and A-30 shall be insulated as A-60 and in addition the division is to be insulated at least 200 mm around the penetration.

Table 1: Approved cable penetration in A-60 steel bulkhead.

Size	Seal Type	Cable type	Max. cable diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation
25 - 70	WGS ES	Fiber optic	12	87 - 130	N/A	Either	Fully insulated. (S1590970 Rev. A)

Table 2: Approved cable penetration in A-60 steel deck.

Size	Seal Type	Cable type	Max. cable diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation
25 - 70	WGS ES	Fiber optic	12	87 - 130	N/A	Top side	Fully insulated. (S1590970 Rev. B)

The insulation materials used have to be approved according to the Marine Equipment Regulation and bear the Mark of Conformity.

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

Type Examination documentation

Test report No. PGB10174A dated 13 July 2022 from DBI, Hvidovre, Denmark.

Test report No. RS-22/B-338/E dated 28 October 2022 from CTO, Gdansk, Poland.

Drawing No. S1590970 Rev. A dated 25 April 2023 from maker.

Drawing No. S1574166 Rev. A dated 17 December 2021 from maker.

Drawing No. S1574122 Rev. A dated 17 December 2021 from maker.

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 and address of manufacturer, type designation, fire-technical rating, Mark of Conformity (see first page).

Appendix

Additional application/information for watertightness/gastightness (Not part of the Marine Equipment Regulation requirement)

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Application/Limitation

Approved for penetration in steel bulkheads or decks limited to a pressure of 2.5 bar watertightness and 0.67 bar gastightness.

For bolted versions the pressure are limited to 1 bar watertightness and 0.67 bar gastightness.

The penetration system is not to be used for penetrating boundaries of tanks.

Type Examination documentation

Test report No. N142G51R dated 11 November 2022 from DNV, Sweden.

Test report No. N142G5DF dated 14 November 2022 from DNV, Sweden.

Test report No. N142VRRD dated 29 February 2024 from DNV, Sweden.

Tests carried out

Pressure tests with water and helium according to DNV-CP-0165.