

Certificate No: **TAE00004SS**

TYPE APPROVAL CERTIFICATE

| This is to certify: | | | | | |
|---|--|--|--|--|--|
| That the Enclosure for Electrical Equipment | | | | | |
| with type designation(s) Abox Pro | | | | | |
| Issued to Günther Spelsberg GmbH + Co. KG Schalksmühle, Germany | | | | | |
| is found to comply with DNV rules for classification – Ships, offshore units, and high speed and light craft | | | | | |
| Application: | | | | | |
| Product(s) approved by this certificate is/are accepted for instal | lation on all vessels classed by DNV. | | | | |
| Issued at Hamburg on 2023-07-26 | | | | | |
| This Certificate is valid until 2028-07-24 . DNV local unit: Essen | for DNV | | | | |
| Approval Engineer: Harald Amberger | Marta Alonso Pontes Head of Section | | | | |

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.

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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.



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Product description

Junction Box Type Abox Pro

Type code designation / example

| | | I | III | IV | V |
|----------|---------|------------|----------|-----------|-------|
| | Version | Dimensions | Mounting | Terminals | Color |
| Abox Pro | | 025 | AB | -L | |

| Version | I | () SL SLK | Junction box with screwless terminal Junction box with screwless terminal compact | | |
|--------------------|----|---|--|--|--|
| Dimensions [mm] | II | () 025 040 060 100 160 250 350 | Width Length Height SL/SLK junction boxes with fixed cross-section 80 80 52 93 93 55 110 110 67 140 140 79 180 180 91 250 200 115 250 250 115 | | |
| Mounting | Ш | () AB | Internal fixation External attachment lugs | | |
| Terminals | IV | -L -X² | Without terminal block 5 pol. Feed-through terminal block 2,5mm² up to 35mm² | | |
| Colour | V | () /sw /w /SB | grey black white grey with red cover | | |

Halogen-free

Material: Box / Cover: Polycarbonate, glass fiber-reinforced, Sealing: Polyurethane

Rated insulation voltage AC or DC: Ui = 400V / 450V with terminal block, 690V without terminal block

Ingress protection: IP66/P67/IP69

Application/Limitation

Location Classes:

Temperature: D, Humidity: B, Vibration: B

Operating instruction of the manufacturer to be observed

Type Approval documentation

306027-TL7-1, 283520_TL3_1

Tests carried out

IEC 60670-22, vibration, flame retardancy V-2 acc. UL 94.

Marking of product

Spelsberg - Type designation - Main data.

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Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and 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

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