

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Enclosure for Electrical Equipment**with type designation(s)
Abox-i

Issued to

Günther Spelsberg GmbH + Co. KG
Schalksmühle, Germany

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Hamburg** on **2019-05-22**for **DNV GL**This Certificate is valid until **2024-05-21**.DNV GL local station: **Essen**Approval Engineer: **Harald Amberger**

Arne Schaarmann
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

Junction Box Type Abox-i

Type code designation / example

	I	II	III	IV	V	VI	VII
	Material	Version	Dimensions	Mounting	Lid color	Terminals	Color
Abox	-i	m	025	AB	-SB	-L	/sw

Material	I	-i	i 025, i 040			Box / Cover: ASA-PC, soft inlet membranes Sealing: Thermoplast elastomer	
			i 060, i 100, i 160 i 250, i 350			Box / Cover: Polycarbonate, glass fiber-reinforced Sealing: Polyurethane	
Version	II	m	i-m 025, i-m 040			Box / Cover: Polycarbonate, glass fiber-reinforced Sealing: Thermoplast elastomer	
Dimensions [mm]	III		Width	Length	Height		
		025	80	80	52		
		040	93	93	55		
		060	110	110	67		
		100	140	140	79		
		160	180	180	91		
		250	250	200	115		
		350	250	250	115		
Mounting	IV	() AB	Internal fixation External attachment lugs				
Lid color	V	-SB	Red				
Terminals	VI	-L -X ²	Without terminal block 5 pol. Feed-through terminal block 2,5mm ² up to 35mm ²				
Color	VII	() /sw /w	grey black white				

Halogen-free
 Rated insulation voltage AC : U_i=690V
 Ingress protection : Abox-i IP65, Abox-i-m IP66

Application/Limitation

Location Classes:
 Temperature: A, Humidity: A, Vibration: B

Operating instruction of the manufacturer to be observed

Type Approval documentation

As per tech.-docs. in NPS 262.1-028980-1

Job Id: **262.1-028980-1**
Certificate No: **TAE00003JO**

Tests carried out

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

Marking of product

Spelsberg - Type designation - Main data.

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