

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Enclosure for Electrical Equipment

with type designation(s)
TK-PC

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**

This Certificate is valid until **2024-05-21**.

DNV GL local station: **Essen**

for **DNV GL**

Approval Engineer: **Harald Amberger**

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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 TK-PC

Type code designation / example

	I	II	III
	Width. Length.	Height	Version
TK-PC	-55	-4	-m

Material	TK-PC Box Base + Cover: Polycarbonate, glass fiber-reinforced Sealing: Polyurethane						
Width. Length. [mm]	I	Size	Width	Length	Size	Width	Length
		-55	52	50			
		-75	65	50	-1313	130	130
		-77	65	65	-1809	180	94
		-97	94	65	-1811	180	110
		-99	94	94	-1813	180	130
		-1005	100	52	-1818	180	180
		-1111	110	110	-2518	254	180
		-1309	130	94	-3625	361	254
Height [mm]	II	Size	Height	Size	Height		
		-4	35	-10	99		
		-6	57	-11	111		
		-7	66	-13	137		
		-8	81	-16	165		
		-9	90				
Version	III	-m	With metric pre-embossing				
		-o	Without knocking				
		-tm	With metric pre-embossing, Cover: polycarbonate, transparent				
		-to	Without knocking, Cover: polycarbonate, transparent				
		-v	With integrated cable gland				
		-tv	With integrated cable gland, Cover: polycarbonate, transparent				
		-2v	With 2 integrated cable gland				
		-2tv	With 2 integrated cable gland, Cover: polycarbonate, transparent				

Halogen-free
Rated insulation voltage AC : $U_i=690V$, DC : $U_i=1000V$
Ingress protection : IP66
Impact resistance : IK08

Application/Limitation

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

Operating instruction of the manufacturer to be observed

Type Approval documentation

Tests carried out

IEC 60670-22, damp heat, vibration, flame retardancy V-2 acc. UL 94, 5 inch flame acc. UL746C.

Job Id: **262.1-028980-1**
Certificate No: **TAE00003J1**

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