

TYPE APPROVAL CERTIFICATE

Certificate no.: **TAE00003J1** Revision No: **1**

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 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.

Issued at Hamburg on 2024-07-02

This Certificate is valid until **2029-05-21**. DNV local unit: **Essen**

Approval Engineer: Harald Amberger

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.



for **DNV**

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.



Job ID: Certificate no.: Revision No:

262.1-028980-3 TAE00003J1 1

Product description

Junction Box Type TK-PC

			11	111				
Wid	th. Leng	ath. H	eight	Version				
TK-PC	-55		-4 -m					
•								
Material		TK-PC	Box Base + Cover: Polycarbonate, glass fiber-reinforced					
			Sealing: F	Polyurethane				
Width. Length.	I	Size	Width	Length	Size	Width	Length	
[mm]		-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	П	Size	Height	Size	Height			
[mm]		-4	35	-10	99			
		-6	57	-11	111			
		-7	66	-13	137			
		-8	81	-16	165			
		-9	90					
Version	Ш	-m	With metric pre-embossing					
		-0	Without knocking					
		-tm	With metr	ic pre-embos	sing, Cove	r: polycarb	onate, transparent	
		-to		nocking, Cov		bonate, tra	Insparent	
		-V		grated cable				
		-tv				er: polycar	bonate, transparent	
		-2v		egrated cable				
		-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

239337-CC3-2 dated 16.10.2018, 258088-TL7-1 dated 22.03.2019

Tests carried out

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



Job ID: 26 Certificate no.: 7/ Revision No: 1

262.1-028980-3 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