

# TYPE APPROVAL CERTIFICATE

Certificate No:  
**TAF00001E2**  
Revision No:  
**1**

## This is to certify:

**That the Class A and B Penetration**

with type designation(s)

**BUSBAR PENETRATION SYSTEM FOR CLASS A-60 and A-0 BULKHEADS AND DECKS  
Roxtec GK Firestop Sealing Kit (GK FS SK) size 127-244**

Issued to

**Roxtec International AB  
Karlskrona, Sweden**

is found to comply with

**DNV statutory interpretations DNV-SI-0364 – SOLAS interpretations, Edition July 2021  
DNV rules for classification – Ships  
DNV offshore standards**

## Application :

**Approved for use as a busbar penetration system for Schneider Electric Industries S.A.S. type KTA 1000-1600,  
KSA 250-1000 and KNA 63-160 in class A-60 and A-0 steel bulkheads and decks.**

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.**

Issued at **Hamburg** on **2022-03-21**

for **DNV**

This Certificate is valid until **2027-03-20**.

DNV local station: **Sweden CMC**

Approval Engineer: **Carsten Hunsalz**

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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.

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

A-60 and A-0 steel bulkhead and deck penetration for “Schneider Electric Industries S.A.S.” busbar system type KTA 1000-1600, KSA 250-1000 and KNA 63-160.

“GK FS SK sealing kit” consisting of a fiberglass cloth with built in heat activated intumescent material to be wrapped around busbar and fitted into circular or steel pipe sleeves. Folded back on each side with ends sealed off to create a cold smoke tight seal and secured by metal cable ties.

The installation shall be made in symmetrically welded or bolted pipe sleeves.

Installation details according drawing Roxtec No. S1573045 Rev.A and S1572947 Rev.A

Table 1: Approved penetrations in A60 Bulkhead.

Sealing kits for round sleeves	Pipe sleeve depth Min – Max [mm]	Type of penetration	Insulation drawing No.	Arrangement No.
GK FS SK 127-244	105 - 205	KTA1000 - KTA1600 KSA250 - KSA1000 KNA63 - KNA160	S1572947 Rev. A	1
GK FS SK 127-244	105 - 205	No service	S1572947 Rev. A	2

Table 2: Approved penetrations in A60 Deck.

Sealing kits for round sleeves	Pipe sleeve depth Min – Max [mm]	Type of penetration	Insulation drawing No.	Arrangement No.
GK FS SK 127-244	105 - 205	KTA1000 - KTA1600 KSA250 - KSA1000 KNA63 - KNA160	S1572947 Rev. A	3
GK FS SK 127-244	105 - 205	No service	S1572947 Rev. A	4

Table 3: Approved penetrations in A0 Bulkhead.

Sealing kits for round sleeves	Pipe sleeve depth Min – Max [mm]	Type of penetration	Insulation drawing No.	Arrangement No.
GK FS SK 127-244	105 - 205	KTA1000 - KTA1600 KSA250 - KSA1000 KNA63 - KNA160	S1573045 Rev. A	1
GK FS SK 127-244	105 - 205	No service	S1573045 Rev. A	2

Table 4: Approved penetrations in A0 Deck.

Sealing kits for round sleeves	Pipe sleeve depth Min – Max [mm]	Type of penetration	Insulation drawing No.	Arrangement No.
GK FS SK 127-244	105 - 205	KTA1000 - KTA1600 KSA250 - KSA1000 KNA63 - KNA160	S1573045 Rev. A	3
GK FS SK 127-244	105 - 205	No service	S1573045 Rev. A	4

## Application/Limitation

Only the penetration system is covered by this type approval certificate. The busbars itself shall hold a valid Type Approval Certificate.

Approved for Schneider busbar system KTA 1000-1600, KSA 250-1000 and KNA 63-160 in class A-60 and A-0 steel bulkheads and decks. Other applications are subject to case-by-case approval. Approved for use in class A-15 and A-30 when the penetration system is insulated as A-60. In addition the division is to be insulated with A-60 insulation at least 200 mm around the penetration.

The insulation material used has to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

Only one busbar system per GK FS SK sleeve is approved, the busbar system shall be arranged in the center of the sleeve.

The systems must not be installed in bulkheads and decks if water- and gas- tightness is required.

The busbar trunking systems KTA, KSA and KNA shall be constructed in that way, that no smoke can pass through them, at the locations of the bulkhead or deck penetrations.

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

## Type Approval documentation

Test Reports A-60 Fire Class:

No. RS-20/B-083/E, dated 2020-04-20; No. PGA11611A, dated 2020-01-11

RS-21/B-242/E, dated 2021-06-30; RS-21/B-445/E, dated 2021-10-07; RS-19/B-255/E, dated 2019-08-20; PGB10113A, dated 2021-07-23; PGB10118A, dated 2021-11-15; RS-19/B-225/E, dated 2019-08-01; RS-19/B-256/E, dated 2019-08-20;

Test Reports A-0 Fire Class:

No. RS-19/B-423/E, dated 2019-11-19; No. PGA11610A, dated 2020-01-10

RS-21/B-240/E, dated 2021-06-30; RS-20/B-081/E, dated 2020-03-31; PGB10110A, dated 2021-04-27; PGB10119A, dated 2021-11-15; RS-21/B-517/E, dated 2021-12-15;

Test Reports Cold Smoke:

Roxtec No. 29092016-01, dated 2016-09-29; No. 22032017-01, dated 2017-03-22; No. 14122016-01, dated 2016-12-14; No. 25042017-01, dated 2017-04-25

Installation Drawing:

Roxtec No. S1573045 Rev.A and S1572947 Rev.A dated 2021-12-01

## Tests carried out

Fire Test acc. 2010 FTP Code, Annex 1: Part 3, IMO Resolution MSC.307(88)

## Marking of product

The product or packing is to be marked with name of manufacturer, type designation and fire-technical rating.

## Periodical assessment

DNV's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in DNV-CP-0338 Section 4.