

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**That the Cable Gland**

with type designation(s)

**HSK-K-Ex-Active, HSK-K-Multi-Ex-Active, HSK-K-FLAKA-Ex-Active, HSK-K-MZ-Ex**

Issued to

**Hummel AG**

**Denzlingen, 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.**

<b>Material</b>	<b>Plastic</b>
<b>Suitable for open deck</b>	<b>No</b>
<b>Suitable for Hazardous areas</b>	<b>Yes</b>

Issued at **Hamburg** on **2018-12-13**

for **DNV GL**

This Certificate is valid until **2023-12-12**.

DNV GL local station: **Augsburg**

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.



## Product description

### HSK-Ex Standard:

<b>Type designation:</b>	<b>HSK-K-Ex-Active</b>
Gland material:	Polyamide, fiberglass reinforced, VO according to UL 94
Seal material:	Buna-N
Operating temperature range:	-20 °C to +85 °C
Degree of protection:	IP 68 (10 bar) within the specified clamping range
Cable type:	Braided / Armoured or Unbraided / Unarmoured (no connection for braid/armour)
Gland sizes range:	Metric thread size: 12, 16, 20, 25, 32, 40, 50, 63 NPT thread size: 3/8", 1/2", 1/2" (16), 3/4", 1", 1 1/4", 1 1/2"
Ex classification:	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Ex certificate number:	BVS 14 ATEX E 025 X, IECEx BVS 14.0020X

<b>Type designation:</b>	<b>HSK-K-Multi-Ex-Active</b>
Gland material:	Polyamide, fiberglass reinforced, VO according to UL 94
Seal material:	Elastomer (O-Ring: Buna-N)
Operating temperature range:	-20 °C to +85 °C
Degree of protection:	IP 68 (10 bar) within the specified clamping range
Cable type:	Braided / Armoured or Unbraided / Unarmoured (no connection for braid/armour)
Gland sizes range:	Metric thread size: 16, 20, 25, 32, 40, 50, 63 NPT thread size: 3/8", 1/2", 1/2" (16), 3/4", 1", 1 1/4", 1 1/2"
Ex classification:	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Ex certificate number:	BVS 14 ATEX E 025 X, IECEx BVS 14.0020X

<b>Type designation:</b>	<b>HSK-K-FLAKA-Ex-Active</b>
Gland material:	Polyamide, fiberglass reinforced, VO according to UL 94
Seal material:	Elastomer (O-Ring: Buna-N)
Operating temperature range:	-20 °C to +85 °C
Degree of protection:	IP 68 (10 bar) within the specified clamping range
Cable type:	Braided / Armoured or Unbraided / Unarmoured (no connection for braid/armour)
Gland sizes range:	Metric thread size: 20, 25, 32, 40, 50 NPT thread size: 1/2" (16), 3/4", 1", 1 1/4", 1 1/2"
Ex classification:	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Ex certificate number:	BVS 14 ATEX E 025 X, IECEx BVS 14.0020X

### HSK-Ex for special applications:

<b>Type designation:</b>	<b>HSK-K-MZ-Ex</b>
Gland material:	Polyamide-AL
Seal material:	Buna-N
Operating temperature range:	-20 °C to +70 °C
Degree of protection:	IP 68 (10 bar) within the specified clamping range
Cable type:	Braided / Armoured or Unbraided / Unarmoured (no connection for braid/armour)
Gland sizes range:	Metric thread size: 16, 20, 25, 32, 40, 50, 63 PG thread size: 9, 11, 13.5, 16, 21, 29, 36, 42, 48
Ex classification:	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Ex certificate number:	KEMA 99ATEX6671 X, IECEx KEM 07.0014x

Job Id: **262.1-029322-1**  
Certificate No: **TAE00003AC**

*Accessories:*

<b>Type designation:</b>	<b>Plug V-Ex</b>
Material:	Polyamide, fiber reinforced
O-Ring:	Buna-N
Operating temperature range:	-20 °C to +90 °C
Degree of protection:	IP 68 (10 bar)
Sizes range:	Metric thread size: 12, 16, 20, 25, 32, 40, 50, 63 PG thread size: 7, 9, 11, 13.5, 16, 21, 29, 36, 42, 48
Ex classification:	II 2G Ex e IIC Gb / II 1D Ex ta IIIC Da
Ex certificate number:	DMT 03 ATEX E 049, IECEx BVS 07.0021

<b>Type designation:</b>	<b>Plug HSK-V-Ex / HSK-V-Ex MZ version</b>
Material:	Elastomer
Operating temperature range:	-40 °C to +95 °C
Sizes range:	Metric thread size: 12, 16, 20, 25, 32, 40, 50*, 63* PG thread size: 7, 9, 11, 13.5, 16, 21, 29, 36, 42*, 48* NPT thread size: 3/8", 1/2", 1/2" (16), 3/4", 1", 1 1/4", 1 1/2" * Not for MZ version
Ex classification:	II 2G Ex e IIC Gb / II 1D Ex ta IIIC Da
Ex certificate number:	BVS 03 ATEX E 298 X, IECEx BVS 07.0022X

## Application/Limitation

Manufacturer's installation description, instructions and DNV GL rules to be followed.

Not to be used in bulkheads/decks or for penetrating boundaries of tanks.

Not suitable for open deck.

The information related to Ex certification from recognised test institution is given as information only. Applications where Ex certified equipment is required will in general be subject to approval case by case based on documentation as required in DNV Rules

Degree of protection will be safeguarded only when sealing and cable entry fittings are properly fitted. The manufacturer's instructions must be followed.

## Type Approval documentation

Test reports/Certificates:

BVS 14 ATEX E 025 X dated 2018.09.25, IECEx BVS 14.0020X dated 2018.10.02,  
KEMA 99ATEX6671 X dated 2017.07.19, IECEx KEM 07.0014x dated 2017.07.19,  
DMT 03 ATEX E 049 dated 2014.11.05, IECEx BVS 07.0021 dated 2014.11.12,  
BVS 03 ATEX E 298 X dated 2015.06.25, IECEx BVS 07.0022X dated 2015.07.02

Catalogue: Cable Glands – 2018-05

## Tests carried out

Type tests in accordance with IEC/EN 60079-0:2017/2012, IEC/EN 60079-7:2015,  
IEC/EN 60079-31:2013/2014, IEC/EN 60529:2013/2014

Job Id: 262.1-029322-1  
Certificate No: TAE00003AC

## Marking of product

Name of manufacturer – type designation – Ex rating.

## 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