



1. **EU-TYPE EXAMINATION CERTIFICATE**

2. **Equipment or Protective System Intended for use in  
Potentially explosive atmospheres  
Directive 2014/34/EU**

3. Reference: **VTT 18 ATEX 013**

4. Equipment: **Cable glands types K...**

Certified types: **KNV and KOV**

5. Manufacturer: **ZAVOD GORELTEX Co. Ltd.  
Saint-Petersburg, Revolutsii road, 18, lit. A  
Russian Federation**

6. These equipment and any acceptable variations thereto are specified in the schedule and possible annex(s) to this Certificate and the documents therein referred to.

7. VTT Expert Services Ltd, notified body number 0537, in accordance with Article 21 of the Directive 2014/34/EU of February 2014, certifies that these equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective system intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no.  
RU/CCVE/ExTR17.0006/00.

8. Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 60079-0:2012  
EN 60079-1:2014  
EN 60079-7:2015  
EN 60079-15:2010  
EN 60079-31:2014**

9. If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.



10. This EU-Type examination certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of these equipment. These are not covered by this certificate.
11. The marking of the equipment shall include the following:



II 2 G Ex db IIC Gb  
II 2 G Ex eb IIC Gb  
II 2 D Ex tb IIC Db  
II 3 G Ex nR IIC Gc  
IP66/67

Espoo, 15.2.2018  
VTT Expert Services Ltd

Martti Siirola  
Senior Expert

Risto Sulonen  
Senior Expert

KOVIIRA



12.

## Schedule

13.

### EU-TYPE EXAMINATION CERTIFICATE VTT 18 ATEX 013

14.

#### Description of equipment

The following types of the cable glands were considered: KOV and KNV .

KNV cable glands are intended for insertion of round non-armored cables. KNV cable gland has one sealing ring for cable crimping, which prevents transfer of forces to the cores and contact clamps caused by pulling and twisting loads, and ensures explosion protection of the cable gland.

KOV cable glands are intended for insertion of round armored cables. KOV cable gland has two sealing rings. Sealing ring at the entry of the cable into the cable gland is used for armor crimping and ensures ingress protection. Internal sealing ring is used for cable crimping and prevents transfer of forces to the cores and contact clamps caused by pulling and twisting loads, and ensures explosion protection of the cable gland.

Cable glands may be used in enclosures and equipment with the following types of explosion protection: «d», «e», «i», «n», and dust ignition protection type «t».

Ingress protection is IP66/67. Degree of protection is ensured when cable glands are installed in accordance with operating, safety and maintenance manual.

Cable gland can be applied for input and output of intrinsically safe circuits "I", and it shall be marked blue.

Connecting thread of the cable gland can be metric (M), pipe cylindrical (G) or taper inch (NPT).

The cable glands characteristics are further described in the Annex to this certificate.

15.

Report No. RU/CCVE/ExTR17.0006/00

16.

Special conditions for safe use

None

17.

Essential Health and Safety Requirements

Met by the compliance with the standards referred in point 8.

Espoo, 15.2.2018

VTT Expert Services Ltd



Martti Sirola  
Senior Expert



Risto Sulonen  
Senior Expert

## Annex

Cable glands types K... are used in mobile and stationary electrical installations inside production facilities and in outdoor facilities, ensuring explosion-proof cable sealing and additional ingress protection for cable armor.

Cable glands can be made from:

- brass;
- nickel-plated brass;
- stainless steel.

Sealing ring material – silicone.

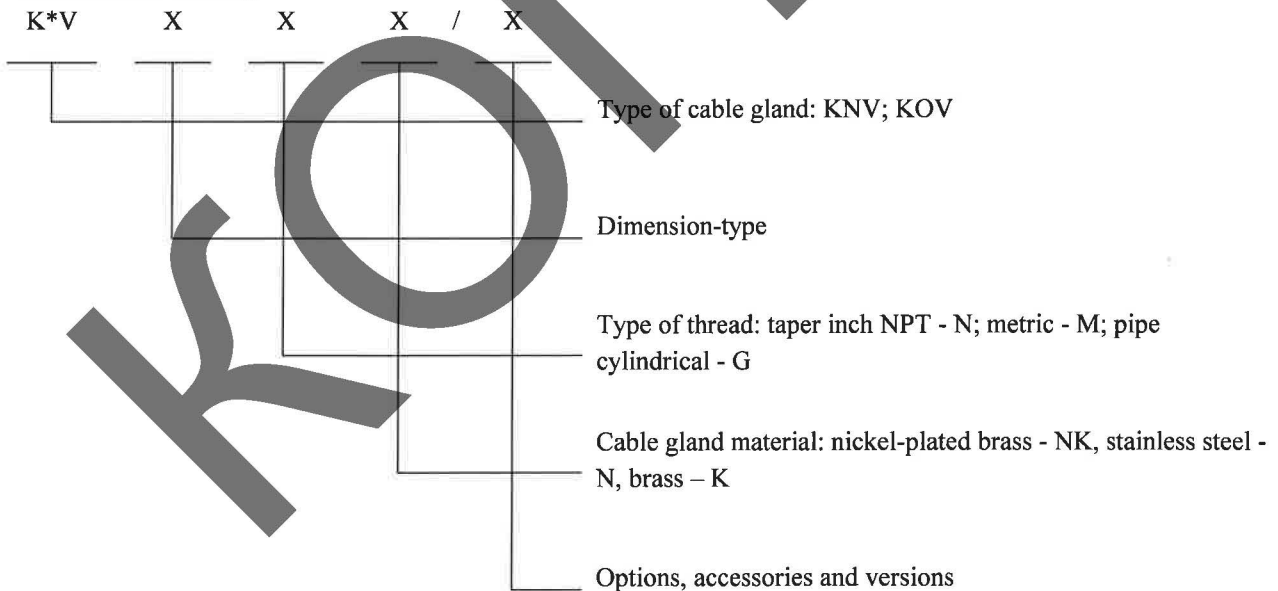
Service temperature: minus 60 °C...+130 °C

Type of cable gland connecting thread:

- metric (M);
- pipe cylindrical (G);
- taper inch (NPT).

Cable gland shall be used only with round cables, diameters of which match the crimping range of cable gland. For fixation of cable gland with metric or pipe cylindrical thread in the equipment, the following additional items shall be used: KG locknut or special lubricant, UKF sealant. Also ground ring A may be applied. Locknut shall be used for thin-walled enclosures. For thin-walled plastic enclosures ground ring A shall additionally be used.

Formation of marking





Dimension-types of KNV cable glands are given in Table 1 in accordance with types of connecting thread and diameters of crimped cables:

Table 1

Dimension-type of cable gland	Thread, M	Thread, G	Thread, NPT	Diameter of crimped cable d, mm
KNV01	M16x1,5	3/8" G	3/8" NPT	3 – 8
KNV1	M20x1,5	1/2" G	1/2" NPT	6 – 12
KNV2	M25x1,5	3/4" G	3/4" NPT	12 – 18
KNV3	M32x1,5	1" G	1" NPT	18 – 25
KNV4	M40x1,5	1 1/4" G	1 1/4" NPT	25 – 31
KNV5	M50x1,5	1 1/2" G	1 1/2" NPT	31 – 39
KNV6	M63x1,5	2" G	2" NPT	39 – 47

Dimension-types of KOV cable glands are given in Table 2 in accordance with types of connecting thread and diameters of crimped cables with armor (D) and with removed armor (d):

Table 2

Dimension-type of cable gland	Thread, M	Thread, G	Thread, NPT	Diameter of crimped cable	
				d, mm	D, mm
KOV01	M16x1,5	3/8" G	3/8" NPT	3 – 8	8 – 12
KOV011	M16x1,5	3/8" G	3/8" NPT	6 – 11	9 – 17
KOV1	M20x1,5	1/2" G	1/2" NPT	6 – 12	9 – 17
KOV12	M20x1,5	1/2" G	1/2" NPT	6 – 12	15 – 25
KOV11	M20x1,5	1/2" G	1/2" NPT	12 – 15	15 – 25
KOV2	M25x1,5	3/4" G	3/4" NPT	12 – 18	15 – 25
KOV22	M25x1,5	3/4" G	3/4" NPT	12 – 18	21 – 31
KOV21	M25x1,5	3/4" G	3/4" NPT	18 – 20	21 – 31
KOV3	M32x1,5	1" G	1" NPT	18 – 25	21 – 31
KOV32	M32x1,5	1" G	1" NPT	18 – 25	27 – 37
KOV31	M32x1,5	1" G	1" NPT	25 – 27	27 – 37
KOV4	M40x1,5	1 1/4" G	1 1/4" NPT	25 – 31	27 – 37
KOV42	M40x1,5	1 1/4" G	1 1/4" NPT	25 – 31	36 – 46
KOV41	M40x1,5	1 1/4" G	1 1/4" NPT	31 – 34	36 – 46
KOV5	M50x1,5	1 1/2" G	1 1/2" NPT	31 – 39	36 – 46
KOV52	M50x1,5	1 1/2" G	1 1/2" NPT	31 – 39	45 – 53
KOV51	M50x1,5	1 1/2" G	1 1/2" NPT	39 – 42	45 – 53
KOV6	M63x1,5	2" G	2" NPT	39 – 47	45 – 53

Certificate without signatures shall not be valid.

This certificate, including the schedule, may only be reproduced in its entirety and without any change.