



(1) **EU-TYPE-EXAMINATION CERTIFICATE**
(Translation)

(2) Equipment or Protective Systems Intended for Use in
Potentially Explosive Atmospheres - **Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number:

PTB 04 ATEX 1112 X

Issue: 01

(4) Product: Cable gland type *MSKE(S)(-L)(-**-RDE) **(-**) (LT)
(MFD **/***(-**/****)) (*****)

(5) Manufacturer: WISKA Hoppmann GmbH

(6) Address: Kisdorfer Weg 28, 24568 Kaltenkirchen, Germany

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential Test Report PTB Ex 17-16048.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012 + A11:2013, EN 60079-7:2015, EN 60079-31:2014

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:



II 2 G Ex eb IIC Gb



II 2 D Ex tb IIIC Db

Konformitätsbewertungsstelle, Sektor Explosionsschutz

Braunschweig, September 15, 2017

On behalf of PTB:


Dr.-Ing. D. Markus
Oberregierungsrat



sheet 1/6

EU-Type Examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.

(13)

SCHEDULE

(14) **EU-Type Examination Certificate Number PTB 04 ATEX 1112 X, Issue: 01**

(15) Description of Product

The cable gland type *MSKE(S)(-L)(-**-RDE) **(-**) (LT) (MFD **/**(-**/**)) (*****) is made from brass. It is used for permanently wired cables entering electrical equipment of Increased Safety "eb" and Protection by enclosure "tb" type of protection.

The cable entry is installed in enclosures with threaded holes and through-holes.

The cable entry consists of an adapter with connection thread in two lengths; sealing element, cap nut and sealing ring at the connection thread.

Accessories used are: blind plug type BS**, different earthing elements, multiple and specially shaped sealing elements, nut with anti-kink-spiral, connection thread sealing rings and counter nut.

Technical data

Connection thread size	Metric, EN 60423: M12x1.5 to M75x1.5 Metric, DIN 89280: M16x1.5 to M72x2 NPT, ANSI 1.20.1: NPT ¼" up to NPT 2 ½" Pg, DIN 40430: Pg 7 to Pg 48
Connection thread length	5 mm to 15 mm
Minimum wall thickness of housing	Threaded hole, metal housing: 3 mm Threaded hole, plastic housing: 3 mm Through-hole, metal housing: 1 mm Through-hole, plastic housing: 2 mm
Suited for cable diameters	Subject to nominal size, between 1 mm and 62 mm
Suited for equipment of device group IIC with the mechanical risk level	high
Operating temperature range	Normal type -40°C to +75°C LT type -60°C to +75°C
Ingress protection	IP66 / IP68 (5bar, 30min) according to IEC 60529

SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 04 ATEX 1112 X, Issue: 01

Sealing range / Anchorage range [mm]	Type of cable gland	Reduced sealing range / Anchorage range [mm] (-RDE)	Type of cable gland	Test torques [Nm]
4 ... 7	EMSKE(S)(-L) 12 (LT) (*****) PMSKE(S)(-L) 7-12 (LT) (*****) NMSKE(S) 1/4 (LT) (*****)	1 ... 3	EMSKE(S)(-L)-RDE 12 (LT) (*****) PMSKE(S)(-L)-RDE 7-12 (LT) (*****) NMSKE(S)-RDE 1/4 (LT) (*****)	4
5 ... 10	EMSKE(S)(-L) 16 (LT) (*****) EMSKE(S)(-L) 12-16 (LT) (*****) NMSKE(S) 3/8 (LT) (*****) PMSKE(S)(-L) 7-16 (LT) (*****) PMSKE(S)(-L) 9-16 (LT) (*****) PMSKE(S)(-L) 11-16 (LT) (*****) MMSKE(S) 16 (LT) (*****)	2 ... 6	EMSKE(S)(-L)-RDE 16 (LT) (*****) EMSKE(S)(-L)-RDE 12-16 (LT) (*****) NMSKE(S)-RDE 3/8 (LT) (*****) PMSKE(S)(-L)-RDE 7-16 (LT) (*****) PMSKE(S)(-L)-RDE 9-16 (LT) (*****) PMSKE(S)(-L)-RDE 11-16 (LT) (*****) MMSKE(S)-RDE 16 (LT) (*****)	4
6 ... 13	EMSKE(S)(-L) 20 (LT) (*****) EMSKE(S)(-L) 16-20 (LT) (*****) NMSKE(S) 1/2 (LT) (*****) PMSKE(S)(-L) 11-20 (LT) (*****) PMSKE(S)(-L) 13,5-20 (LT) (*****) PMSKE(S)(-L) 16-20 (LT) (*****) MMSKE(S) 18 (LT) (*****)	4 ... 8	EMSKE(S)(-L)-RDE 20 (LT) (*****) EMSKE(S)(-L)-RDE 16-20 (LT) (*****) NMSKE(S)-RDE 1/2 (LT) (*****) PMSKE(S)(-L)-RDE 11-20 (LT) (*****) PMSKE(S)(-L)-RDE 13,5-20 (LT) (*****) PMSKE(S)(-L)-RDE 16-20 (LT) (*****) MMSKE(S)-RDE 18 (LT) (*****)	8
10 ... 17	EMSKE(S)(-L) 25 (LT) (*****) EMSKE(S)(-L) 20-25 (LT) (*****) NMSKE(S) 3/4 (LT) (*****) PMSKE(S)(-L) 13,5-25 (LT) (*****) PMSKE(S)(-L) 16-25 (LT) (*****) PMSKE(S)(-L) 21-25 (LT) (*****) MMSKE(S) 24 (LT) (*****)	7 ... 12	EMSKE(S)(-L)-RDE 25 (LT) (*****) EMSKE(S)(-L)-RDE 20-25 (LT) (*****) NMSKE(S)-RDE 3/4 (LT) (*****) PMSKE(S)(-L)-RDE 13,5-25 (LT) (*****) PMSKE(S)(-L)-RDE 16-25 (LT) (*****) PMSKE(S)(-L)-RDE 21-25 (LT) (*****) MMSKE(S)-RDE 24 (LT) (*****)	10
13 ... 21	EMSKE(S)(-L) 32 (LT) (*****) EMSKE(S)(-L) 25-32 (LT) (*****) NMSKE(S) 1 (LT) (*****) PMSKE(S)(-L) 21-32 (LT) (*****) MMSKE(S) 30 (LT) (*****)	9 ... 14	EMSKE(S)(-L)-RDE 32 (LT) (*****) EMSKE(S)(-L)-RDE 25-32 (LT) (*****) NMSKE(S)-RDE 1 (LT) (*****) PMSKE(S)(-L)-RDE 21-32 (LT) (*****) MMSKE(S)-RDE 30 (LT) (*****)	20
16 ... 28	EMSKE(S)(-L) 40 (LT) (*****) EMSKE(S)(-L) 32-40 (LT) (*****) NMSKE(S) 1 1/4 (LT) (*****) PMSKE(S)(-L) 29-40 (LT) (*****) MMSKE(S) 36 (LT) (*****)	12 ... 20	EMSKE(S)(-L)-RDE 40 (LT) (*****) EMSKE(S)(-L)-RDE 32-40 (LT) (*****) NMSKE(S)-RDE 1 1/4 (LT) (*****) PMSKE(S)(-L)-RDE 29-40 (LT) (*****) MMSKE(S)-RDE 36 (LT) (*****)	20
21 ... 35	EMSKE(S)(-L) 50 (LT) (*****) EMSKE(S)(-L) 40-50 (LT) (*****) NMSKE(S) 1 1/2 (LT) (*****) PMSKE(S)(-L) 36-50 (LT) (*****) PMSKE(S)(-L) 42-50 (LT) (*****) MMSKE(S) 45 (LT) (*****)	16 ... 25	EMSKE(S)(-L)-RDE 50 (LT) (*****) EMSKE(S)(-L)-RDE 40-50 (LT) (*****) NMSKE(S)-RDE 1 1/2 (LT) (*****) PMSKE(S)(-L)-RDE 36-50 (LT) (*****) PMSKE(S)(-L)-RDE 42-50 (LT) (*****) MMSKE(S)-RDE 45 (LT) (*****)	30
34 ... 48	EMSKE(S)(-L) 63 (LT) (*****) EMSKE(S)(-L) 50-63 (LT) (*****) NMSKE(S) 2 (LT) (*****) PMSKE(S)(-L) 48-63 (LT) (*****) MMSKE(S) 56 (LT) (*****)	28 ... 38	EMSKE(S)(-L)-RDE 63 (LT) (*****) EMSKE(S)(-L)-RDE 50-63 (LT) (*****) NMSKE(S)-RDE 2 (LT) (*****) PMSKE(S)(-L)-RDE 48-63 (LT) (*****) MMSKE(S)-RDE 56 (LT) (*****)	40
48 ... 62	EMSKE(S)(-L) 75 (LT) (*****) EMSKE(S)(-L) 63-75 (LT) (*****) NMSKE(S) 2 1/2 (LT) (*****) MMSKE(S) 72 (LT) (*****)	---	---	50

SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 04 ATEX 1112 X, Issue: 01

Nomenclature

*	M	S	K	E	(S)	(-L)	(-**)	(-RDE)		**	(-**)		(LT)		(MFD **/**** (-**/****))	(****)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

- 1 = Type of connection thread
 - E = metric connection thread according to EN 60423
 - N = NPT connection thread according to ANSI B1.20.1
 - P = Pg connection thread according to DIN 40430
 - M = metric connection thread according to DIN 89280
- 2 = material
 - M = brass
- 3 = code for the cable gland system
 - S = WISKA SPRINT System
- 4 = code for the product type
 - K = cable gland (Kabelverschraubung)
- 5 = code for the application area
 - E = explosion-proof area
- 6 = optional declaration for a special cable protection
 - S = cap nut with anti-kink spiral
- 7 = optional declaration for a special connection thread
 - L = long connection thread (only for E and P – see position 1)
- 8 = declaration of the surface treatment
 - Ni = nickel plated (standard for thread E, N and P)
 - Cr = chrome plated, -Bl = blank (standard for thread M)
- 9 = optional declaration for an additional reduced sealing insert
 - RDE = reduced sealing insert
- 10 = space
- 11 = nominal size of the connection thread, for example:
 - 16 = metric thread M16x1.5, 40 = metric thread M40x1.5
 - 1/2 = NPT thread 1/2", 1 1/4 = NPT thread 1 1/4"
 - 13.5 = Pg thread Pg 13.5, etc.
- 12 = optional declaration of the sealing range of cable glands with Pg-thread and enlargement cable glands (base is the standard sealing range of the metric cable glands), not necessary with cable glands "Normal"-E, N and M, for example:
 - 12 = sealing range from the cable gland M12,
 - 25 = sealing range from the cable gland M25
- 13 = space
- 14 = optional declaration of a special temperature range
 - LT = low temperature configuration (-60°C)
- 15 = space
- 16 = see below
- 17 = optional declaration of the EMC configuration
 - EMV-Z = configuration with earthing cones
 - EMV-S = configuration with contact cage made of stainless steel
 - EMV-C = configuration with contact cage made of copper-beryllium

SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 04 ATEX 1112 X, Issue: 01

(MFD		**	/	***	(-**	/	***))
16							
A	B	C	D	E	F	G	H

16 = optional declaration of configuration with multiple sealing insert

A = Type of insert: MFD = multiple sealing insert

B = space

C = number of holes, e.g. 01 = 1

D = slash

E = diameter of holes in 1/10 mm, e.g. 063 = 6.3 mm*

F = optional second number of holes

G = optional slash

H = size of holes in 1/10 mm for second size of holes

The sealing range of the multiple sealing inserts is between the given diameter of the hole and this diameter - 10 % (max. 1 mm less than the given diameter)

Modifications

1) The companies name is changed to "WISKA Hoppmann GmbH".

2) Addition of multiple sealing inserts.

3) The type reference is changed to type *MSKE(S)(-L)(-**)(-RDE) **(-**) (LT) (MFD **/**(-**/**)) (*****).

4) The cable gland has been retested according to EN 60079-0:2012 + A11:2013, EN 60079-7:2015 and EN 60079-31:2014. Therefore, the marking is changed to:

 II 2 G Ex eb IIC Gb

 II 2 D Ex tb IIIC Db

(16) Test Report PTB Ex17-16048

(17) Specific conditions of use

Only permanently wired cables may be entered. The user shall provide for the required strain relief.

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

SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 04 ATEX 1112 X, Issue: 01

(18) Essential health and safety requirements

Met by compliance with the aforementioned standards.

According to Article 41 of Directive 2014/34/EU, EC-type examination certificates which have been issued according to Directive 94/9/EC prior to the date of coming into force of Directive 2014/34/EU (April 20, 2016) may be considered as if they were issued already in compliance with Directive 2014/34/EU. By permission of the European Commission supplements to such EC-type examination certificates and new issues of such certificates may continue to hold the original certificate number issued before April 20, 2016.

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Braunschweig, September 15, 2017


Dr.-Ing. D. Markus
Oberregierungsrat

