

(1) **EC-TYPE EXAMINATION CERTIFICATE**

(2) Equipment or protective system intended for use in potentially explosive atmospheres
- Directive 94/9/EC

(3) EC-Type Examination Certificate Number: **KEMA 99ATEX6971 X**

(4) Equipment or protective system: **Cable entries, Series:**
- **HSK-M-Ex, HSK-M-EMV-Ex, HSK-M-EMV-D-Ex**
- **HSK-MZ-Ex, HSK-MZ-EMV-Ex**
- **HSK-INOX-Ex, HSK-INOX-EMV-Ex**

(5) **Manufacturer: Hummel Elektrotechnik GmbH**

(6) **Address: Merklinstraße 34, 79183 Waldkirch, Germany**

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

(8) KEMA, notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems 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. 96971.


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

EN 50014:1997 + A1, A2 and prA3 EN 50019:1994 + prA1 and prA2

(10) 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.

(11) This EC-Type Examination Certificate relates only to the design and construction of the specified equipment or protective system. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.

(12) The marking of the equipment or protective system shall include the following:

 **II 2 G EEx e II**

Arnhem, 6 March 2000
by order of the Board of Directors of N.V. KEMA



L.M.J. Vries
Certification Manager

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to EC-Type Examination Certificate KEMA 99ATEX6971 X**Manufacturer: Hummel Elektrotechnik GmbH****Address: Merklinstraße 34, 79183 Waldkirch, Germany****Description**

Cable entries, Series HSK-K-MZ-Ex, for Group II, in type of explosion protection increased safety "e".

Operating temperature range -20 °C ... +70 °C.

Maximum operating temperature at the branching point of the conductors: 70 °C.

Installation instructions

The installation instructions for safe use of the cable entries, as provided by the manufacturer, shall be followed in detail to assure correct installation of the cable entry.

Report

KEMA No. 2004246

Special condition for safe use

The cable entries of series HSK-K-MZ-Ex are capable of withstanding an impact energy level of 4 Joules and shall be protected against higher impact energy levels.

The other special conditions for safe use remain unchanged.

Essential Health and Safety Requirements

Essential Health and Safety Requirements not covered by the standards listed at (9)	
Clause	Subject
1.0.5	Marking
1.0.6 (b) and (d)	Instructions

These Essential Health and Safety Requirements are examined and positively judged. The results are laid down in the report listed at (16).

(13)

SCHEDULE

(14)

to EC-Type Examination Certificate KEMA 99ATEX6971 X

(15) **Description**

Cable entries, Series HSK-M-Ex, HSK-M-EMV-Ex, HSK-M-EMV-D-Ex, HSK-MZ-Ex, HSK-MZ-EMV-Ex, HSK-INOX-Ex, HSK-INOX-EMV-Ex, for Group II, in type of explosion protection increased safety "e".

Operating temperature range -60 °C ... +105 °C.

Maximum operating temperature at the branching point of the conductors: 105 °C.

Installation instructions

The installation instructions for safe use of the cable entries, as provided by the manufacturer, shall be followed in detail to assure correct installation of the cable entry.

(16) **Report**

No. 96971

(17) **Special condition for safe use**

The following cable entries are marked with the symbol "X" after the certificate number and are capable of withstanding an impact energy level of only 4 Joules. They shall be protected against higher impact energy levels:

- HSK-MZ-Ex, Type M50 x 1,5, with normal and reduced clamping range
- HSK-MZ-EMV-Ex, Type M50 x 1,5, with normal and reduced clamping range
- HSK-INOX-Ex, Types PG11 and PG 13,5, with normal clamping range
- HSK-INOX-EMV-Ex, Types PG11 and PG 13,5, with normal clamping range

(18) **Essential Health and Safety Requirements**

Essential Health and Safety Requirements not covered by standards listed at (9)	
Clause	Subject
1.0.5	Marking
1.0.6. (b) and (d)	Instructions

These Essential Health and Safety Requirements are examined and positively judged. The results are laid down in the report listed at (16).

SCHEDULE

(13)

(14)

to EC-Type Examination Certificate KEMA 99ATEX6971 X(19) **Test documentation**

1. Certificate of Conformity KEMA No. Ex-98.E.4559 X

signed2. Drawing No. E-99172)
 E-99173)
 E-99174)
 E-99175)

07.02.2000

3. Installation instructions (2 pages)

01.03.2000

4. Samples

AMENDMENT 1

to EC-Type Examination Certificate KEMA 99ATEX6971 X

Test documentation

		<u>signed</u>
1. Drawing No.	E-99293, rev. 2	05.06.2000
	E-99294	15.11.1999
	1.215.0901.14, rev. 1	05.06.2000
	1.215.1101.14, rev. 1	05.06.2000
	1.215.1301.14, rev. 1	05.06.2000
	1.215.1601.14, rev. 1	05.06.2000
	1.215.2101.14	19.05.2000
	1.215.2901.14	19.05.2000
	1.215.3601.14	19.05.2000
	1.215.4201.14	19.05.2000
	1.215.4801.14	19.05.2000
	1.215.1601.50, rev. 1	05.06.2000
	1.215.2001.50, rev. 1	05.06.2000
	1.215.2501.50	19.05.2000
	1.215.3201.50	19.05.2000
	1.215.4001.50	19.05.2000
	1.215.5001.50	19.05.2000
	1.215.6301.50	19.05.2000
	1.000.2150.90	19.05.2000
	1.000.2151.10	19.05.2000
	1.000.2151.30	19.05.2000
	1.000.2151.60	19.05.2000
	1.000.2152.10	19.05.2000
	1.000.2152.90	19.05.2000
	1.000.2153.60	19.05.2000
	1.000.2154.20	19.05.2000
	1.000.2154.80	19.05.2000
	1.087.**00.16, rev. 1	15.11.1999
2. Installation instructions (3 pages)		01.05.2000
3. Samples		

Arnhem, 4 September 2000

by order of the Board of Directors of N.V. KEMA

C.M. Boschloo
Certification Manager

to EC-Type Examination Certificate KEMA 99ATEX6971 X**Manufacturer: Hummel Elektrotechnik GmbH****Address: Mörklinstraße 34, 79183 Waldkirch, Germany****Description**

The cable entries Series HSK-M-Ex and HSK-M-EMV-Ex are extended with sizes PG 36, PG 42, PG 48, M40 x 1,5, M50 x 1,5 and M63 x 1,5.

Furthermore the cable entries Series HSK may also be used in areas where combustible dust may be present.

Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 50281-1-1 : 1998.

The cable entries are marked with the following code :  II 2 GD EEx e II

Special conditions for safe use

The cable entries Series HSK-M-Ex, HSK-M-EMV-Ex, HSK-M-EMV-D-Ex, HSK-INOX-Ex and HSK-INOX-EMV-Ex are tested to 25 % of the required values stated in clause B.3 of EN 50014 and may be used only for fixed installations of Group II. The user shall ensure adequate clamping of the cable.

All other data remain unchanged.

Test documentationsigned

Drawing No. E-0401151

29.03.2004

E-0401075 to E-0401080)
1.000.6093.61 to 1.000.6093.65)
1.000.6094.21 to 1.000.6094.25)
1.000.6094.81 to 1.000.6094.85)
AAK5-1MA40B)
AAK5-1M0500)
AAZ2-AM0400)
AAZ2-AM0401)
AAZ2-AM0500)
AAZ2-AM0501)
AAZ2-AM0630)
AAZ2-AM0631)
AAK7-1PA360)
AAK7-1PA36A)
AAK7-1PA420)
AAK7-1PA42A)
AAK7-1PA480)
AAK7-1PA48A)
AAK7-1MA400)
AAK7-1MA500)

19.02.2004

translation

AMENDMENT 2

original language: German

to EC-Type Examination Certificate KEMA 99ATEX6971 X

signed

Drawing No. 1.087.3600.16)
1.087.4200.16)
1.087.4800.16)
1.085.**00.16)

19.02.2004

Arnhem, 1 April 2004
KEMA Quality B.V.



T. Pijpker
Certification Manager

to EC-Type Examination Certificate KEMA 99ATEX6971 X

Manufacturer: **Hummel Elektrotechnik GmbH**

Address: **Merklinstraße 34, 79183 Waldkirch, Germany**

Description

The cable entries Series HSK-M-Ex, HSK-M-EMV-Ex, HSK-MZ-Ex and HSK-MZ-EMV-Ex are extended with sizes PG 7, M12 x 1,5 and 3/8" NPT.

The cable entries Series HSK-M and HSK-INOX can also be provided with a PVDF clamping insert and a FPM O-ring and sealing insert. The operating temperature range of this version is -20 °C ... +130 °C.

The cable entries Series HSK-M and HSK-INOX now withstand the 7 Joule impact energy level. Protection is no longer necessary.

Special conditions for safe use

The cable entries Series HSK-M-Ex, HSK-M-EMV-Ex, HSK-M-EMV-D-Ex, HSK-INOX-Ex and HSK-INOX-EMV-Ex are tested to 25 % of the required values stated in clause B.3 of EN 50014 and may be used only for fixed installations of Group II. The user shall ensure adequate clamping of the cable.

All other data remain unchanged.

Test documentation

Drawings on drawing list (3 pages)

dated

28.04.2005

Arnhem, 29 April 2005
KEMA Quality B.V.



T. Pijpker
Certification Manager