

Operating Instruction

IECEX BVS 15.0040X

ATEX BVS 15 ATEX E051 X

Product KV-Ms-Ex, HSK-M-Ex, HSK-INOX-Ex

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ENGLISH

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This documentation includes the following documents:

- Accident Prevention Regulations and related installation instructions /
Electrotechnical Regulations (responsibility lies with installer)

Manufacturer	HUMMEL AG Lise-Meitner-Straße 2 79211 Denzlingen / Germany
Notified body	DEKRA Testing and Certification GmbH Dinnendahlstraße 9 D-44809 Bochum
ID number	0158
IECEX CoC	IECEX BVS 15.0040X
Type Examination Certificate	BVS 15 ATEX E051 X
Scope	Cable glands: KV-Ms-Ex, HSK-M-Ex, HSK-INOX-Ex
Reference standards	<ul style="list-style-type: none">• DIN EN IEC 60079-0:2019• DIN EN IEC 60079-7 / A1:2018• DIN EN 60079-31 : 2014• DIN EN 60529 : 2014
Temperature range	KV-Ms-Ex : -50 °C – 130 °C (-58 °F – 266 °F) HSK-M-Ex, HSK-INOX-Ex : -60 °C – 95 °C (-76 °F – 203 °F)
Type of protection	KV-Ms-Ex : IP 68, up to 5 bar HSK-M-Ex, HSK-INOX-Ex : IP 68, up to 10 bar

Technical Data

Series	Connection Thread Metric	Clamping Range [mm]	Torque [Nm] Dome Nut / Body / Lock Nut
AB61-M020ISEH	M20x1,5	5-12	8
T6402050EH	M20x1,5	5-12	8
AB66-M012SE	M12x1,5	6-6,8	2,5
AB66-M010SE	M10x1	6-6,8	2,5

The tightening torque specified in the table must be applied to the cable gland using a torque wrench.

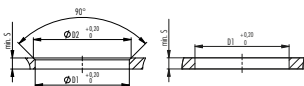
Installation conditions - general

Be sure to check the products for proper working order (integrity) before mounting them. Only qualified personnel (electricians) may carry out installations, using suitable tools. The products must be used as delivered, no modifications permitted. To prevent accidental loosening, use a lock nut or suitable safeguard adhesive. As the tightening torques depend on the cables used, it is the user's responsibility to determine the appropriate torque in each case. Both the gland screw and the cap nut must be properly tightened. Note that undertightening or overtightening the connecting thread or the cap nut may adversely affect the type of protection, the tightness and / or the strain relief.

Surface roughness:	max. Rz 16
Perpendicularity:	The sealing surface of the cable gland must always be mounted at right angle to the housing surface.
Earhtag:	The installation of earhtags is only permitted on the sealing surface between the housing and the cable gland. The user has to ensure the tightness with regard to IP and explosion protection.
Housing material:	If an EMC connection of the device / cable gland is provided, the housing material must consist of conductive material. If this conductive material is coated with a non-conductive material, a special EMC lock nut must be used. There are no further restrictions of the housing material.
Sealing method:	The sealing at the cable is done by the sealing insert. Sealing at the housing is done by an O-ring.

Installation conditions - through hole

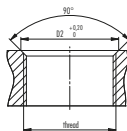
The cable gland must be fixed with a lock nut



Thread	D1	D2	S
M6x1	6	7,3	2,5
M8x1,25	8	9	2,5
M10x1,5	10	10,4	2,5
M12x1,5	12	13	2,5
M16x1,5	16	17	2,5
M20x1,5	20	21	2,5
M25x1,5	25	26	2,5
M32x1,5	32	33	2,5
M40x1,5	40	41	2,5
M50x1,5	50	51	2,5
M63x1,5	63	64	2,5
M75x1,5	75	76	2,5
M80x2	80	81	4
M90x2	90	91	5
M100x2	100	101,3	5
M110x2	110	111	5

Installation conditions - thread

For all thread sizes the thread tolerance is 6g



Thread	D1	D2	S
Pg7	12,7	13,2	2,5
Pg9	15,4	15,9	2,5
Pg11	18,8	19,3	2,5
Pg13,5	20,7	21,2	2,5
Pg16	22,8	23,3	2,5
Pg21	28,6	29,1	3
Pg29	37,4	38,4	3
Pg36	47,5	48,5	3
Pg42	54,5	55,5	3
Pg48	59,8	60,8	3

Thread	D1	D2	S
NPT 3/8"	17,3	18	4
NPT 1/2"	21,1	22	5
NPT 3/4"	26,7	27,5	4
NPT 1"	34,3	35	4
NPT 1 1/4"	41,9	42,5	5
NPT 1 1/2"	48,8	49,5	5
NPT 2"	61,1	62,0	5
NPT 2 1/2"	74,0	76,5	6
NPT 3"	89,8	92,5	6

D1: through hole
D2: countersink



If the cable gland is used in a way that deviates from the specified installation conditions, the user must ensure the safety of the system.

Special conditions

These cable glands are suitable only for use with permanently installed cables. The installer is responsible for providing appropriate strain relief. By using the glands in Zone 20 / Da and Zone 21 / Db the user should fulfill the requirements of EN/IEC 60079-31 and EN/IEC 60079-14.

Marking

The products and /or their smallest packaging units are marked as specified below. Products marked otherwise may not be used under this type-examination certificate. Non-compliance shall void the manufacturer's liability.

- Manufacturer's name and address (only on packaging)
- Trademark
- $-50^{\circ}\text{C} \leq +130^{\circ}\text{C} / -60^{\circ}\text{C} - +95^{\circ}\text{C}$
- Type and connecting thread size (only on packaging)
- BVS 15 ATEX E051 X
- IECEx BVS 15.0040X
-  II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da (only on packaging)
-  -mark incl. ID number of notified body (only on packaging)
- Clamping range (only on packaging)
- IP 68 – 5bar / IP 68 – 10 bar (only on packaging)

Safety

The products may only be used within the specified temperature range. The manufacturer shall not be liable for damage caused by use in non-specified fields of application. Only qualified personnel may carry out work in hazardous areas. All relevant regulations must be observed in this case!

Resistance / Endurance

The products consist of:

Body of gland:	nickel plated brass; stainless steel
Gasket and O-ring:	EPDM ; NBR; HNBR
Insert:	PA6

The materials used are suitable for „industrial atmospheres“, within the specified temperature-range. For all other applications, consult the manufacturer!

Maintenance

At the specified maintenance intervals it is recommended to check the articles and tighten as necessary.

Prior to use

Before putting the installation into service, check it for compliance with these installation instructions as well as local and international standards (incl. application-specific ones).

Should you have additional questions, please contact the manufacturer. Please note that unauthorized or improper application or non-compliance with these installation instructions shall void the manufacturer's liability.

EU Declaration of Conformity

issued under the sole responsibility of the manufacturer
Complying the EU Directive 2014/34/EU, Attachment X

Types Cable Glands KV-Ms-Ex, HSK-M-Ex, HSK-INOX-Ex

**Certified in Type
Examination certificates** BVS 15 ATEX E 051 X

Issued by notified body DEKRA Testing and Certification GmbH
Dinnendahlstraße 9
44809 Bochum

ID number 0158

Following standards are applied

DIN EN IEC 60079-0 : 2019 Electrical apparatus for potentially explosive atmospheres
– General requirements

DIN EN IEC 60079-7 / A1:2018 Electrical apparatus for potentially explosive atmospheres
– Increased safety „e“

DIN EN 60079-31 : 2014 Electrical apparatus for use in the presence of combustible dust,
Electrical apparatus protected by enclosures – Construction and testing

DIN EN 60529 : 2014 Degrees of protection provided by enclosures (IP-Code)

We declare that the above articles were developed and manufactured in the responsibility of HUMMEL AG.



Michael Nörr
HUMMEL AG / CEO