

# Operating Instruction

IECEX KEM 07.0014X

KEMA 99 ATEX 6971X

Cable gland: HSK-INOX-Ex AB61-M020IB

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ENGLISH

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This documentation includes the following documents:

- Current Sales Catalog of HUMMEL AG
- Accident Prevention Regulations and related installation instructions /  
Electrotechnical Regulations (responsibility lies with installer)

<b>Manufacturer</b>	HUMMEL AG Lise-Meitner-Straße 2 79211 Denzlingen / Germany	
<b>Notifies body</b>	DEKRA Testing and Certification GmbH Dinnendahlstraße 9 44809 Bochum / Germany	DEKRA Certification B.V. Meander 1051 6825 MJ Arnhem / Netherlands
<b>ID number</b>	0158	0344
<b>IECEX CoC</b>	IECEX KEM 07.0014X	
<b>Type-examination certificate</b>	KEMA 99 ATEX 6971X	
<b>Scope</b>	Cable gland: HSK-INOX-Ex AB61-M020IB	
<b>Reference standards</b>	<ul style="list-style-type: none"><li>• DIN EN IEC 60079-0:2019</li><li>• DIN EN IEC 60079-7 / A1:2018</li><li>• DIN EN 60079-31:2014</li><li>• DIN EN 60529:2014</li></ul>	
<b>Temperature range</b>	-60 °C – 95 °C (-76 °F – 203 °F)	
<b>Type / degree of protection</b>	IP 66/68, up to 10 bar – 30 min	

## Technical Data

Series	Connection Thread Metric	Clamping Range [mm]	Torque [Nm] Dome Nut / Body / Lock Nut
AB61-MO20IB	M20 x 1,5	7 – 12	10

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

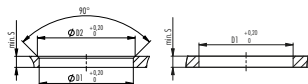
### Installation conditions - general

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 earthtags 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:	There are no restrictions regarding 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

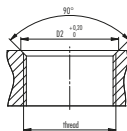
The cable gland must be fixed with a lock nut



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

Cable glands with cap nut but without a strain-relief device are suitable only for use with permanently installed cables. The installer is responsible for providing appropriate strain-relief. If the cable gland is purchased without an O-ring on the connection thread or is used with an O-ring other than those supplied by HUMMEL, the user must take care of compliance to the applicable standards with respect to the required ingress protection level between the cable gland and the enclosure.

## 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
-  II 2G 1D Ex eb II IP 68 (only on packaging)
-  II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
- KEMA 99 ATEX 6971X / IECEx KEM 07.0014X
- Connecting thread size
-  , 0158 (only on packaging)
- -60 °C – 95 °C (-76 °F – 203 °F)

## 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:	stainless steel
Clamping insert:	polyamide
Gasket and O-ring:	NBR

The materials used are suitable for „industrial atmospheres“, meaning that they are resistant or highly resistant to mineral oils 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 further questions, please contact the manufacturer.

**EU Declaration of Conformity**

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

<b>Types</b>	Cable gland: HSK-INOX-Ex AB61-M020IB	
<b>Certified in Type Examination certificates</b>	KEMA 99 ATEX 6971 X	
<b>Issued by notified body</b>	DEKRA Testing and Certification GmbH Dinnendahlstraße 9 44809 Bochum / Germany	DEKRA Certification B.V. Meander 1051 6825 MJ Arnhem / Netherlands
<b>ID number</b>	0158	0344
<b>Following standards are applied</b>		
<b>DIN EN IEC 60079-0 : 2019</b>	Electrical apparatus for potentially explosive atmospheres – General requirements	
<b>DIN EN IEC 60079-7 / A1:2018</b>	Electrical apparatus for potentially explosive atmospheres – Increased safety „e“	
<b>DIN EN 60079-31 : 2014</b>	Electrical apparatus for use in the presence of combustible dust, Electrical apparatus protected by enclosures – Construction and testing	
<b>DIN EN 60529 : 2014</b>	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