

# **Certificate of Compliance**

Mouhamad Dalal

Certificate: 70010389 Master Contract: 182407

**Project:** 80233290 **Date Issued:** 2025-09-08

**Issued to:** Hummel AG Issued by: Mouhamad Dalal

Lise-Meitner-Strasse 2 Denzlingen, Baden-Württemberg 79211

Germany

**Attention:** Christian Latte

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



#### **PRODUCTS**

Class 4418 05 CABLE - Hardware - For Hazardous Locations

Class 4418 85 CABLE - Hardware - For Hazardous Locations-Certified to U.S. Standards

Class II, Div 1, Groups E, F and G Class I, Zone 1, AEx e IIC Gb Class II, Zone 1, AEx ta IIIC Da

#### Cable glands

Model(s)	Operating Temp. Range	Ingress Protection
	(°C)	Code



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Type HSK-K-Flaka-Ex-Active 1.582.****, and Type HSK-K-Flaka-Ex-Active	-20 to +85	IP 68 (At 10 bar)
1.582.****.**		

#### Notes:

- 1. Cable glands sizes M12, M16 and NPT 3/8" to be protected by the enclosure against mechanical impact energy levels higher than 4 Joule.
- 2. The cable glands are with O-ring sealing made of NBR, additionally they can be used with FKM or VMQ sealing.
- 3. The classification of the temperatures to the Temperature Code of the bushing is to be determined in the type test of the respective electrical equipment.
- 4. Suitability of end use installation to be determined by certification body or Local Authority having Jurisdiction

#### Polyamide Cable Glands

Model(s)	Operating Temp. Range (°C)	Ingress Protection Code
Models HSK-K-Ex-ACTIVE	-20 to +85	IP 68 (At 10 bar)

#### Notes:

- 1. Cable glands sizes M12, M16 and NPT 3/8" to be protected by the enclosure against mechanical impact energy levels higher than 4 Joule.
- 2. The classification of the temperatures to the Temperature Code of the bushing is to be determined in the type test of the respective electrical equipment.
- 3. Suitability of end use installation to be determined by certification body or Local Authority having Jurisdiction

#### **APPLICABLE REQUIREMENTS**

CSA C22.2 No. 25:17 - Fourth Edition - Enclosures for use in Class II, Division 1, Groups E, F, and G hazardous locations

CSA C22.2 No. 174-M1984 - Second Edition - Cables and Cable Glands for Use in Hazardous Locations - General Instruction No. 1: June 1984; General Instruction No. 2: February 1985; General Instruction No. 3: December 1987; General Instruction No. 4: February 1988; General Instruction No. 5: September 1989

CAN/CSA C22.2 No. 60079-0:11 - Second Edition - Explosive atmospheres — Part 0: Equipment — General requirements

CAN/CSA-C22.2 No. 60079-7:12 - First Edition - Explosive atmospheres - Part 7: Equipment protection by increased safety 'e'

CSA C22.2 No. 60079-31:15 - Second Edition - Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

CSA C22.2 NO. 18.3:12 - Conduit, tubing, and cable fittings - Second Edition; Incorporating Update No. 1: November 2014; Update No. 2: May 2020; Update No. 3: March 2024

C22.2 NO. 18-92 - Outlet Boxes, Conduit Boxes, and Fittings



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UL 2225:2005 - Second Edition - UL Standard for Safety Cables and Cable-Fittings For Use In Hazardous (Classified) Locations

ANSI/UL 1203 (Third Edition) - Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations

ANSI/UL 514B (Fifth Edition) - UL Standard for Safety Conduit, Tubing, and Cable Fittings

UL 60079-0 - Seventh Ed - Rev April 15,2020 - Standard for Safety Explosive Atmospheres - Part 0:

Equipment – General Requirements

UL 60079-7 - UL Standard for Safety Explosive Atmospheres –Part 7: Equipment protection by increased safety "e" - Fifth Edition; Reprint with Revisions Through and Including June 3, 2021

UL 60079-31:2015 - Second Edition - Standard for Safety Explosive Atmospheres - Part 31: Equipment Dust Ignition Protection by Enclosure "t"

#### **Markings**

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

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In addition to the markings for the ordinary locations:

- submittor's identification;
- model designation or equivalent;
- applicable hazardous locations ratings.
- cautions, warnings and additional markings as may be required by the applicable Standards;
- CSA Monogram with C/US Indicator, provided on the packaging.
- Reference to certification number (CSA 15. 70010389X), provided on the packaging.
- Class I, Zone 1, Ex/AEx e IIC, provided on the packaging.
- Class II, Zone 1, Ex/AEx ta IIIC Da
- Cable glands do not have to be marked with the serial number and the temperature class. The complete address is only stated on the packaging and in the instructions.



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- The complete address is only stated on the packaging and in the instructions.
- The IP marking is only stated on the packaging and in the instructions.
- The instructions refer to the special requirements of the installation instructions
- Special conditions are mentioned in the installation sheet.
- · Installation sheet and assembly instruction are attached in every packaging unit.

#### **Conditions Of Acceptability**

- 1. The cable glands are intended for use external connections for enclosures installed in Zone 1/Div 2 hazardous locations.
- 2. Cable glands require additional evaluation and testing in the end product to verify compliance to CSA Certification requirements.
- 3. Conductors shall not be subjected to a pull force of more than 71bf (31N).
- 4. The ambient temperature range of electrical equipment is usually limited. The maximum ambient temperature permited for these cable glands may in use be utilized up to permitted service temperature.
- 5. The test of the clamping connection (tensile tests) was done applying 25% of the values required by A3 of IEC/CSA/UL 60079-0. The user shall ensure adequate clamping of the cable. Therefore, a X-marking is provided and special conditions are called.
- 6. The cable glands sizes M12, M16 and NPT 3/8" are tested for low risk of mechanical danger (drop height 0.4 m with 1 kg mass) and shall be protected against higher impact energy levels.



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Notes:

Products certified under Class(es) C441805, C441885 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC).  $\underline{www.scc.ca}$ 



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## Supplement to Certificate of Compliance

Certificate: 70010389 Master Contract: 182407

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

### **Product Certification History**

Project	Date	Description
80233290	2025-09-08	Evaluation for update to cCSAus report 70010389 to update the standard CSA C22.2 No. 25-1966 as per the applicable Hazloc Notice, Hazardous Locations Products No. 35, and to clarify the use of plastic materials
80229846	2025-01-24	FIR follow-up, update to Report 70010389 to address (FC# 182408) FIR dated July 31, 2024.  Removal of Class I Div 2 markings from report as per HAZLOC Notice. 27
70143895	2017-08-28	Update certificate 70010389
70076838	2016-07-03	Update to existing Report 70010389 to add cable glands type HSK-K-Multi-Ex-Active and HSK-K-Flaka-Ex-Active series.
70076838	2016-06-03	Update to existing Report 70010389 to add cable glands type HSK-K-Multi-Ex-Active and HSK-K-Flaka-Ex-Active series.
70010389	2015-08-28	CSA certification of HSK-K-Ex-Active Poliamid cable glands based on ATEX and IEC EX certification.