[1] # EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU**

[3] EU-Type Examination Certificate Number: **DEMKO 15 ATEX 1405X Rev. 2**

[4] Product: **HKH Series Control Stations**

[5] Manufacturer: **Killark, A Division of Hubbell Inc. (Delaware)**

[6] Address: **2112 Fenton Logistics Park Blvd., Fenton, MO 63026 USA**

[7] This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8] UL International Demko A/S, notified body number 0539 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to 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 confidential report no. **US/UL/ExTR15.0063/03.**

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 **EN 60079-1:2014** **EN 60079-18:2015+A1:2017**
EN IEC 60079-7:2015+A1:2018 **EN 60079-31:2014**

[10] If the sign "**X**" is placed after the certificate number, it indicates that the product is subject to special conditions for safe 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. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by the certificate.

[12] The marking of the product shall include the following:

Ex II 2 G Ex de IIC T6...T4 Gb

Ex II 2 G Ex e mb IIC T6...T4 Gb

Ex II 2 G Ex e IIC T6...T4 Gb

Ex II 2 G Ex de mb IIC T6...T4 Gb

Ex II 2 D Ex tb IIIC T85°C …T135°C Db

Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

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[13] [14]

Schedule
EU-TYPE EXAMINATION CERTIFICATE No.
DEMKO 15 ATEX 1405X Rev. 2

[15] Description of Product

The HKH Series Control Station are stainless steel or polymeric enclosures that can house a variety of Ex components, such as pilot lights, contact blocks, operators, E-Stops, and terminals.

The components are covered under the following Ex component certificates:

HKH Series Contact Block:	DEMKO 12 ATEX 1202251U
HKH Series Pilot Light:	DEMKO 14 ATEX 1337U
HKH Series Actuators, Pilot Light Lens Covers and Plugs:	DEMKO 14 ATEX 1400U
HKH Series Polymeric Enclosures:	DEMKO 14 ATEX 1399U
HKH Series Stainless Steel Enclosures:	DEMKO 14 ATEX 1323U
HKH Series E-Stops:	DEMKO 15 ATEX 1422U
ABB ZS4 Terminal Blocks:	LCIE 08 ATEX 0007U
Weidmuller WDU 2.5 or 4 and WPE 2.5 or 4 Terminal Blocks:	DEMKO 14 ATEX 1338U
EXM Calotte Cover	SIRA 15 ATEX 3333U
CZ0205 Series Ammeter/Milliammeter/ Voltmeter	SIRA 14 ATEX 3169U

Ex de IIC T6…T4 Gb
To be used when control station includes an HKH Contact Block, HKH Pilot Light, HKH E-Stop, WDU, WPE or ZS4 Terminal Blocks, and a CZ0205 Ammeter.

Ex e IIC T6…T4 Gb
To be used when control station includes only series WDU, WPE, or ZS4 terminal blocks, and/or CZ0205 ammeter.

Ex e mb IIC T6…T4 Gb
To be used when control station includes only series WDU, WPE, or ZS4 terminal blocks, and a CZ0205 voltmeter or milliammeter.

Ex de mb IIC T6…T4 Gb
To be used when control station includes an HKH contact block or HKH pilot light and a CZ0205 voltmeter or milliammeter.

Ex tb IIIC T85ºC…T135ºC Db
All options.

Note: When a CZ0205 meter is in use, the EXM calotte cover shall also be installed.

Nomenclature for HKH Series Control Station:

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
HKH	1B	N	P	x	E	xx	3	x	xx	x	S

I – Product Series
HKH Series Control Stations

II – Enclosure Type/Size
1A - One Device
1B - One Device / Two Device
1C - Two Device / Three Device

III – Enclosure Material
N - Polymeric
S - 316 Stainless Steel (Inward Flange)
E - 316 Stainless Steel (Outward Flange)

IV - Contact Block / Pilot Light Mounting Method
D - DIN-rail mount
P - Panel mount

V - Cable Entry (optional)
x - Letter or Digit indicating size and location

VI - Earthing Plate (optional)
E - Brass Earthing Continuity Plate (Metric Only)

VII - Operator/ Meter
xx - Letter-Digit or Letter-Letter indicating HKH Series Actuator(s) and/or Series CZ0205 meter installed

VIII - Control Module
L - LED Lamp (Pilot Light)
1 - 1 NO / 1 NC
2 - 1 NO

3 - 1 NC
4 - 2 NO
5 - 2 NC

IX - Legend Plate (optional)
x - Letter or Digit

X - Accessory Type (optional)
xx - Letter-Digit

XI - Hub / Gland Designator (optional)
x - Letter or Digit

XII - Earthing Stud Kit (optional)
S - Internal/External Earth Stud

Alternate Nomenclature

I	II	III
HKH	MOD	xxxxxx

I – Product Series
HKH Series Control Stations

II – Extended Catalog Number Designator
MOD – indicates the Standard Nomenclature exceeds 18 characters

III – Dedicated Configuration Designator
Xxxxxx – 1 to 6 characters indicating a specific component configuration

Additional optional suffix numbers or letters indicating labelling or other non-construction related options may follow those noted above.

The relation between ambient temperature and the assigned temperature class is as follows:

Ambient temperature range	**Temperature class**	**Maximum Surface Temperature**	**Control Station Limitations**
-50 °C to +60 °C	T6…T4	T85°C…T135°C	See below
-40°C to +55°C (when calotte or CZ0205 meter is installed)	T5	T100°C	See below

For a **T6** Temperature Code/**T85°C** Maximum Surface Temperature, the following electrical ratings are in effect:

Enclosure Size	Maximum No. of CZ Meters	Maximum No. of HKH Contact Blocks	Max. No. of ABB ZS4 Terminal Blocks	Maximum No. of HKH Pilot Lights	Minimum Wire Size	Maximum Continuous Current Rating
2c	2	12	16	6	2 mm^2 (14 AWG)	10 A
2a	1	8	16	4	2 mm^2 (14 AWG)	10 A
1c	1	6	8	3	2 mm^2 (14 AWG)	10 A
1b	1	4	6	2	2 mm^2 (14 AWG)	10 A
1a	1	2	N/A	1	4 mm^2 (12 AWG)	20 A

[13]

[14]

Schedule
EU-TYPE EXAMINATION CERTIFICATE No.
DEMKO 15 ATEX 1405X Rev. 2

For a **T5** Temperature Code/**T100°C** maximum Surface Temperature, the following electrical ratings are in effect:
(For Complete Control Stations with Pilot Lights only)

Enclosure Size	Maximum No. of CZ Meters	Maximum No. of HKH Pilot Lights	Minimum Wire Size	Maximum Wattage Rating	Maximum Continuous Current Rating
2c	2	6	0.5 mm^2 (20 AWG)	0.6 Watts	20A
2a	1	4	0.5 mm^2 (20 AWG)	0.6 Watts	20A
1c	1	3	0.5 mm^2 (20 AWG)	0.6 Watts	20A
1b	1	2	0.5 mm^2 (20 AWG)	0.6 Watts	20A
1a	1	1	0.5 mm^2 (20 AWG)	0.6 Watts	20A

For a **T4** Temperature Code/**T135°C** Maximum Surface Temperature, the following electrical ratings are in effect:

Enclosure Size	Maximum No. of CZ Meters	Maximum No. of HKH Contact Blocks	Max. No. of ABB or Weidmuller Terminal Blocks	Maximum No. of HKH Pilot Lights	Minimum Wire Size	Maximum Continuous Current Rating
2c	2	12	16	6	4 mm^2 (12 AWG)	20 A
2a	1	8	16	4	4 mm^2 (12 AWG)	20 A
1c	1	6	8	3	4 mm^2 (12 AWG)	20 A
1b	1	4	6	2	4 mm^2 (12 AWG)	20 A

Electrical data:
Killark HKH Series Contact Blocks, E-Stops, and Operators:
AC690V, 16A, AC-12, 50-60Hz
AC230V, 16A, AC-15, 50-60Hz
DC60V, 5A, DC-13, 50-60Hz
DC125V, 1A, DC-13, 50-60Hz

Killark HKH Series Pilot Light:
12 - 254 Vac/dc, 50/60Hz, 0.6 Watts

Weidmuller WDU and WPE 2.5 Series Terminal Blocks:
21A, 690 V

Weidmuller WDU and WPE 4 Series Terminal Blocks:
28 A, 690 V

ABB ZS4 Series Terminal Blocks:
32 A, 693 V

CZ 0205 Series Milliammeter
0-20/40 mA, 4-20/40mA; DC, AC 50/60 Hz

CZ 0205 Series Ammeter
0-1 A, 0-5 A, 0-10A; AC 50-60 Hz

CZ 0205 Series Voltmeter
0-10V, 0-25V, 0-40V, 0-50V, 0-100V, 0-120V, 0-150V, 0-250V, 0-500V; AC50/60 Hz

[13] [14]

Schedule
EU-TYPE EXAMINATION CERTIFICATE No.
DEMKO 15 ATEX 1405X Rev. 2

Installation Instructions:

- The HKH Contact Blocks, Weidmuller WDU and WPE 2.5 and 4 Series, and ABB ZS4 Series must be mounted to provide a minimum of 10 mm clearance to any conductive surfaces.
- The Series HKH Pilot Lights must be mounted to provide a minimum clearance of 5.0 mm to any conductive surfaces.
- The Series HKH Contact Block and Pilot Lights can accommodate wire sizes from 22 AWG (0.5 mm^2) to 12 AWG (4 mm^2) solid and stranded and 10 AWG (4.0 mm^2) stranded, with a maximum of two wires per terminal. Strip wire insulation 10 mm. Tighten terminal screws 15 in-lbs. (1.7 N-m).
- The Weidmuller WDU and WPE 4 Series and ABB ZS4 Series will accommodate wire sizes from 20 AWG (0.5 mm^2) to 10 AWG (6 mm^2) and Weidmuller WDU and WPE 2.5 Series will accommodate wire sizes from 20 AWG (0.5 mm^2) to 12 AWG (4 mm^2), with a maximum of two wires per terminal. Strip wire insulation 10 mm for Weidmuller terminals and 10.3 mm for ABB terminals. Tighten terminal screws 3.5 to7 in-lbs. (0.4 to 0.8 N-m) for WDU and WPE 2.5 Series, 4.4 to8 in-lbs. (0.5 to 1.0 N-m) for WDU and WPE 4 Series, and 5.3 in-lbs. (0.6 N-m) for ABB ZS4 Series.
- The Weidmuller Series WDU terminal blocks require an additional accessory (end section or circuit separator) when a jumper bar with “cut extremity” is used.
- The Weidmuller Series WDU and WPE and ABB Series ZS terminals can accommodate one or two solid or stranded Cu wires. When two wires are installed under a single terminal, they must be of the same type (STR or SOL) and of equal sizes.
- The Series HKH Polyamide Enclosure cover bolts should be torqued to 3 Nm to 4 Nm.
- The Series HKH Stainless Steel Enclosure cover bolts should be torqued to hand tight. Do not over-tighten.
- To maintain the IP66 rating or dust protection method “tb”, all actuator/enclosure sealing gaskets must be installed in accordance with these installation instructions.
- These enclosures may be provided without cable glands/ conduit entries. When installing glands or entries, the cable glands/ conduit entries must be certified as increased safety or flameproof for protection type “tb” and have a minimum IP 66 rating.
- To assure the IP ratings are not compromised, Cable Gland and Conduit Entry holes must not exceed the maximum dimensions noted in the gland/ entry manufacturer's installation instructions.
- All unused wiring terminals shall be tightened.
- All conductors shall be suitable for the minimum ambient and maximum temperature achieved in service – use 90°C rated conductors (minimum) for T6 applications and use 105°C conductors (minimum) for T5 and T4 applications.
- Do not remove the tamper-proof screws or attempt to open or alter the Series HKH contact blocks.

Routine tests
N/A

[16] Descriptive Documents
The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this EU-Type Examination Certificate.

[17] Specific conditions of use:

- CZ0205 modules are intended to be installed as TS35*7.5 rail mounted or panel-mounted (mounting frame is screw-fixed to the enclosure cover). Dimensions of all models are 66mm x 66mm x47.5mm.
- EXM Calotte covers must be installed per the manufacturer’s instructions through the wall of a suitable ATEX certified enclosure. Note- mounting screw length is dependent upon enclosure wall thickness.
- The EXM Calotte viewing window frame presents a potential electrostatic hazard and shall be fitted to fixed installations only to allow it to comply with EN 60079-0: Clause 7.4.2 e) and Clause 7.4.3 d). The polymeric frame shall only be cleaned with a damp cloth and sited away from any static charging methods (i.e.: near forced air movement or where they can easily be rubbed by passers-by).
- The EXM Calotte viewing window is intended for use when Series CZ0205 meters are installed.
- The ammeter and voltmeter modules must be mounted in a suitable Ex enclosures and after installation must maintain the creepage and clearance distances as noted in IEC 60079-7, Clauses 4.3 and 4.4 and Table 1. (Series CZ0205 meters shall be mounted to provide a minimum clearance of 10mm and minimum creepage of 16mm.
- Tightening torque of the CZ0205 meter wiring terminals is 1.2 Nm and the EXM mounting frame screw is 1.1 Nm.

[18] Essential Health and Safety Requirements
The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9

Additional information
The HKH Series Control Station has in addition passed the tests for Ingress Protection to IP XX in accordance with EN60529:1991+A1:2000+A2:2013.

The trademark Harsh & Hazardous will be used as a company identifier on the marking label.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.