

EU-TYPE EXAMINATION CERTIFICATE



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

- [2] EU-Type Examination Certificate Number: **DEMKO 15 ATEX 1405X Rev. 1**
- [4] Product: **HKH Series Control Stations, Increased Safety, Encapsulated, and Flameproof Components in Increased Safety Enclosures**
- [5] Manufacturer: **Killark, Div of Hubbell Inc. (Delaware)**
- [6] Address: **3940 Martin Luther King Drive, St. Louis, MO 63113 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 product 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. **4787237586**
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN 60079-0:2012+A11:2013 EN 60079-1:2007 EN 60079-18:2009**
EN 60079-7:2007 EN 60079-31:2014
- [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 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 equipment or protective system shall include the following:

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

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

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

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

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 Equipment described herein ("Certified Equipment") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Equipment Certification Program Requirements. This certificate and test results obtained apply only to the equipment 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 equipment. UL has not established Follow-Up Service or other surveillance of the equipment. The Manufacturer is solely and fully responsible for conformity of all equipment 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.

Date of issue: 2015-11-24

Re-issued: 2016-07-14



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Schedule

EU-TYPE EXAMINATION CERTIFICATE No.

DEMKO 15 ATEX 1405X Rev. 1

Notified Body UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
Tel. +45 44 85 65 65, info.dk@ul.com, www.ul.com

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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 T85°C...T135°C 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 HKH	II 1B	III N	IV P	V x	VI E	VII xx	VIII 3	IX x	X xx	XI x	XII S
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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

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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

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

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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

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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 mm²) to 12 AWG (4 mm²) solid and stranded and 10 AWG (4.0 mm²) 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 mm²) to 10 AWG (6 mm²) and Weidmuller WDU and WPE 2.5 Series will accommodate wire sizes from 20 AWG (0.5 mm²) to 12 AWG (4 mm²), 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 to 7 in-lbs (0.4 to 0.8 N-m) for WDU and WPE 2.5 Series, 4.4 to 8 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.

Mounting instructions

Refer to "Instructions".

Routine tests

N/A

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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.

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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 x 47.5mm.
- 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.

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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 66 and IP 67 (stainless steel outward flange only) 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.

EU Declaration Of Conformity



KILLARK

Manufacturer :	Killark Electric , Div of Hubbell Inc.(Delaware), 2112 Fenton Logistics Park Blvd , Fenton, MO 63026, USA Tel : (314) 531-0460 Email: killarkinfo@hubbell.com	
Declares in its sole responsibility that the product mentioned below		
Product Designation :	Control Stations	
Type Designation :	HKH	
is in conformity with the essential protection requirements of the following Directive(s), Certification Scheme(s) and Standard(s).		
Directive(s) / Scheme(s)		Standard(s)
2014/34/EU ATEX Directive		EN 60079-0:2012+A11:2013 EN 60079-1:2007 EN 60079-7:2007 EN 60079-18:2009 EN 60079-31:2014
IEC Certification Scheme For Explosive Atmosphere		IEC 60079-0:2011, Ed. 6.0 IEC 60079-1:2007-04, Ed. 6.0 IEC 60079-7:2006-07, Ed. 4.0 IEC 60079-18:2014, Ed. 4.0 IEC 60079-31:2013, Ed. 2.0
Others		EN 60529:1991+A1:2000+A2:2013
Type Examination Certificate		
ATEX		IECEX
DEMKO 15 ATEX 1405X Issue No. 1		IECEX UL 15.0054X Issue No. 2
Certification Body		
ATEX		IECEX
UL International Demko A/S, Ballerup 5A, 2750 Ballerup, Denmark. Reg No.: 0539		UL LLC, 333 Pfingsten Rd. Northbrook IL 60062-2096 United States Of America
Marking (Note 1)		
ATEX		IECEX
 II 2G Ex d e mb IIC T6..T4 Gb  II 2D Ex tb IIIC T85°C..T135°C Db IP 66  2813 Ta= -50°C to +60°C		Ex d e mb IIC T6..T4 Gb Ex tb IIIC T85°C..T135°C Db IP 66 Ta = -50°C to +60°C
Note 1: Ratings provided are maximum ratings and may vary depend on the components used and their installation.Refer Certificate,Installation & Operating manual and rating plate on equipment for details. QAN compliance has been approved by Notified Body CSA Group Netherlands B.V.,Utrechtseweg 310,6812 AR, Arnhem,Netherlands. (Notified Body number 2813). To verify the status and authenticity of IECEX Certificate of Conformity, please visit Official IECEX Website		
Signature :		
Name :	Tom Michalski	
Designation :	Certifications Manager	
Place and Date :	Fenton, 25-10-2019	

Attestation Of Conformity

**KILLARK**

Manufacturer :	Killark Electric , Div of Hubbell Inc.(Delaware), 2112 Fenton Logistics Park Blvd , Fenton, MO 63026, USA Tel : (314) 531-0460 Email: killarkinfo@hubbell.com	
Declares in its sole responsibility that the product mentioned below		
Product Designation :	Emergency Stop Assemblies	
Type Designation :	Open-Type Series HKH E-Stops	
is in conformity with the essential protection requirements of the following Directive(s), Certification Scheme(s) and Standard(s).		
Directive(s) / Scheme(s)		Standard(s)
2014/34/EU ATEX Directive		EN IEC 60079-0:2018 EN 60079-1:2014 EN 60079-7:2015+A1:2018 EN 60079-31:2014
IEC Certification Scheme For Explosive Atmosphere		IEC 60079-0:2017, Ed. 7.0 IEC 60079-1:2014-06, Ed. 7.0 IEC 60079-7:2017, Ed. 5.1 IEC 60079-31:2013, Ed. 2.0
Others		EN 60529:1991+A1:2000
Type Examination Certificate		
ATEX		IECEx
DEMKO 15 ATEX 1422U Issue No. 2		IECEx UL 15.0111U Issue No. 2
Certification Body		
ATEX		IECEx
UL International Demko A/S, Ballerup 5A, 2750 Ballerup, Denmark. Reg No.: 0539		UL LLC, 333 Pfingsten Rd. Northbrook IL 60062-2096 United States Of America
Marking (Note 1)		
ATEX		IECEx
 II 2G Ex db eb IIC Gb II 2D Ex tb IIIC Db IP 66 2813 Ta= -50°C to +60°C		Ex db eb IIC Gb Ex tb IIIC Db IP 66 T _a = -50°C to +60°C
Note 1: Rating data, characteristics and for incorporation into equipment refer Installation & operating manual.		
QAN compliance has been approved by Notified Body CSA Group Netherlands B.V., Utrechtseweg 310, 6812 AR, Arnhem, Netherlands. (Notified Body number 2813).		
To verify the status and authenticity of IECEx Certificate of Conformity, please visit		Official IECEx Website
Signature :		
Name :	Tom Michalski	
Designation :	Certifications Manager	
Place and Date :	Fenton, 25-10-2019	