



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: issue No.:

Status:

Date of Issue: **2015-11-24** Page 1 of 3

Applicant: **Killark, A Division of Hubbell Inc. (Delaware)**
3940 Martin Luther King Drive
St. Louis, MO 63113
United States of America

Electrical Apparatus: **HKH Series Control Stations**
Optional accessory:

Type of Protection: **Increased Safety Flameproof "de", Dust Ignition Protection by Enclosure "tb"**

Marking: Ex de IIC T6...T4 Gb
Ex tb IIIC T85°C...T135°C Db
-50°C to +60°C

Approved for issue on behalf of the IECEx
Certification Body:

Katy Holdredge

Position:

Senior Staff Engineer

Signature:
(for printed version)

Date:

2015-11-24

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

UL LLC
333 Pfingsten Road
Northbrook IL 60062-2096
United States of America





IECEX Certificate of Conformity

Certificate No.: IECEx UL 15.0054

Date of Issue: **2015-11-24**

Issue No.: **0**

Page 2 of 3

Manufacturer: **Killark, A Division of Hubbell Inc. (Delaware)**
3940 Martin Luther King Drive
St. Louis, MO 63113
United States of America

Additional Manufacturing location
(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

- | | |
|--|--|
| IEC 60079-0 : 2011
Edition: 6.0 | Explosive atmospheres - Part 0: General requirements |
| IEC 60079-1 : 2007-04
Edition: 6 | Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d" |
| IEC 60079-31 : 2013
Edition: 2 | Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t" |
| IEC 60079-7 : 2006-07
Edition: 4 | Explosive atmospheres - Part 7: Equipment protection by increased safety "e" |

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[US/UL/ExTR15.0063/00](#)

Quality Assessment Report:

[US/UL/QAR07.0004/06](#)



IECEx Certificate of Conformity

Certificate No.: IECEx UL 15.0054

Date of Issue: **2015-11-24**

Issue No.: **0**

Page 3 of 3

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

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.
Please see Annex for additional information.

CONDITIONS OF CERTIFICATION: NO

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:	IECEX UL 12.0033U
HKH Series Pilot Light:	IECEX UL 14.0047U
HKH Series Actuators, Pilot Light Lens Covers and Plugs:	IECEX UL 14.0104U
HKH Series Polymeric Enclosures:	IECEX UL 14.0103U
HKH Series Stainless Steel Enclosures:	IECEX UL 14.0039U
HKH Series E-Stops:	IECEX UL 15.0111U
ABB ZS4 Terminal Blocks:	IECEX LCIE 08.0031U
Weidmuller WDU 2.5 or 4 and WPE 2.5 or 4 Terminal Blocks:	IECEX ULD 14.0005U

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
 - xx - Letter-Digit or Letter-Letter indicating HKH Series Actuator(s) 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

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

Enclosure Size	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	12	16	6	2 mm ² (14 AWG)	10 A
2a	8	16	4	2 mm ² (14 AWG)	10 A
1c	6	8	3	2 mm ² (14 AWG)	10 A
1b	4	6	2	2 mm ² (14 AWG)	10 A
1a	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 HKH Pilot Lights	Minimum Wire Size	Maximum Wattage Rating
2c	6	0.5 mm ² (22 AWG)	0.6 Watts
2a	4	0.5 mm ² (22 AWG)	0.6 Watts
1c	3	0.5 mm ² (22 AWG)	0.6 Watts
1b	2	0.5 mm ² (22 AWG)	0.6 Watts
1a	1	0.5 mm ² (22 AWG)	0.6 Watts

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

Enclosure Size	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	12	16	6	4 mm ² (12 AWG)	20 A
2a	8	16	4	4 mm ² (12 AWG)	20 A
1c	6	8	3	4 mm ² (12 AWG)	20 A
1b	4	6	2	4 mm ² (12 AWG)	20 A

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.