

# CERTIFICATE OF CONFORMITY



- HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
- Certificate No:** FM18US0155X
- Equipment:** Desktop and Panel Mount Keyboards and Pointers.  
**(Type Reference and Name)** DT-5K-FSR-IS, DT-5K-FSR-NI, PM-5K-FSR-IS, PM-5K-FSR-NI, HP-DT-FSR-IS, HP-DT-FSR-NI, HP-PM-FSR-IS, HP-PM-FSR-NI, DT-2000-FSR-IS, DT-2000-FSR-NI, PM-2000-FSR-IS, PM-2000-FSR-NI, DT-1000-FSR-IS, DT-1000-FSR-NI, PM-1000-FSR-IS, PM-1000-FSR-NI, DU-5K-FSR-IS, DU-5K-FSR-NI
- Name of Listing Company:** iKey, Ltd.
- Address of Listing Company:** 2621 Ridgepoint Drive, Suite 235  
Austin, TX 78754  
USA
- The examination and test results are recorded in confidential report number:  
PR449737 dated 24<sup>th</sup> August 2018
- FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:  
FM Class 3600:2018, FM Class 3610:2018, FM Class 3611:2018, FM Class 3810:2018,  
ANSI/UL 60079-0:2013, ANSI/UL 60079-11:2014, ANSI/ISA 12.12.01:2015,  
ANSI/ISA 61010-1:2012, ANSI/NEMA 250:1991
- If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.

**Certificate issued by:**

  
\_\_\_\_\_  
J.E. Marquedant  
VP, Manager, Electrical Systems

22 January 2019  
\_\_\_\_\_  
Date

To verify the availability of the Approved product, please refer to [www.approvalguide.com](http://www.approvalguide.com)

**THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE**

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA  
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# SCHEDULE



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9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.

10. Equipment Ratings:

Intrinsically Safe for Class I, Division 1, Groups C, D, E, F, G;  
Nonincendive for Class I, Division 2, Groups A, C, D;  
Suitable for Class II, III, Division 2, Groups F, G;  
indoor and outdoor locations (Type 4X) with an ambient temperature rating of -40°C to +75°C.

11. The marking of the equipment shall include:

Intrinsically Safe Class I,II,III, Division 1, Groups C, D, E, F, G; T4 Ta = -40°C to +75°C; Type 4X  
Nonincendive Class I, Division 2, Groups A, C, D; Class II, III, Division 2, Groups F, G; T4 Ta = -40°C to +75°C;  
Type 4X

12. **Description of Equipment:**

**General** - The Model DT-5K-FSR-IS, DT-5K-FSR-NI, PM-5K-FSR-IS, PM-5K-FSR-NI, HP-DT-FSR-IS, HP-DT-FSR-NI, HP-PM-FSR-IS, HP-PM-FSR-NI, DT-2000-FSR-IS, DT-2000-FSR-NI, PM-2000-FSR-IS, PM-2000-FSR-NI, DT-1000-FSR-IS, DT-1000-FSR-NI, PM-1000-FSR-IS, PM-1000-FSR-NI, DU-5K-FSR-IS and DU-5K-FSR-NI Keyboards and Pointing Devices consist of one or two PCBs containing a membrane keypad, a matrix of keys, and the associated circuitry, depending on the model selected.

**Construction** - The enclosure of the keyboards are constructed of stainless steel (or in the case of DU-5K-FSR-IS and DU-5K-FSR-NI conductively-coated polycarbonate) with a silicone rubber membrane keypad. The housing provides cable entry for each circuit through cable glands installed in the rear or back side, depending on the model selected.

Connection to the process control apparatus is accomplished via a 9-pin connector or a USB connector attached to a cable. Keyboards with a pointing device contain a different set of electronics to support that function.

**Ratings** – IS version products are powered through a Daisy Data P070-000AAA-01 EX210 barrier. NI Version products are powered through a Pepperl and Fuchs SK-PC-D2-UU1-10-HS Ex-rated barrier.

The Desktop and Panel Mount Keyboards and Pointers operate at 5 Vdc. The ambient operating temperature range of the Keyboards and Pointing Devices is -40°C to 75°C.

***DT-5K-FSR-IS, PM-5K-FSR-IS***

IS / I / 1 / CDEFG / T4 Ta = -40°C to +75°C – HL0066; Type 4X

***HP-DT-FSR-IS, HP-PM-FSR-IS***

IS / I / 1 / CDEFG / T4 Ta = -40°C to +75°C – HL0068; Type 4X

***DT-2000-FSR-IS, PM-2000-FSR-IS***

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IS / I / 1 / CDEFG / T4 Ta = -40°C to +75°C – HL0070; Type 4X

***DT-1000-FSR-IS, PM-1000-FSR-IS***

IS / I / 1 / CDEFG / T4 Ta = -40°C to +75°C – HL0076; Type 4X

***DU-5K-FSR-IS***

IS / I / 1 / CDEFG / T4 Ta = -40°C to +75°C – HL0072; Type 4X

***DT-5K-FSR-NI, PM-5K-FSR-NI***

NI / I / 2 / ABCD / T4 Ta = -40°C to +75°C – HL0067; Type 4X

S / II, III / 2 / FG / T4 Ta = -40°C to +75°C – HL0067; Type 4X

***HP-DT-FSR-NI, HP-PM-FSR-NI***

NI / I / 2 / ABCD / T4 Ta = -40°C to +75°C – HL0069; Type 4X

S / II, III / 2 / FG / T4 Ta = -40°C to +75°C – HL0069; Type 4X

***DT-2000-FSR-NI, PM-2000-FSR-NI***

NI / I / 2 / ABCD / T4 Ta = -40°C to +75°C – HL0071; Type 4X

S / II, III / 2 / FG / T4 Ta = -40°C to +75°C – HL0071; Type 4X

***DT-1000-FSR-NI, PM-1000-FSR-NI***

NI / I / 2 / ABCD / T4 Ta = -40°C to +75°C – HL0077; Type 4X

S / II, III / 2 / FG / T4 Ta = -40°C to +75°C – HL0077; Type 4X

***DU-5K-FSR-NI***

NI / I / 2 / ABCD / T4 Ta = -40°C to +75°C – HL0073; Type 4X

S / II, III / 2 / FG / T4 Ta = -40°C to +75°C – HL0073; Type 4X

13. **Specific Conditions of Use:**

1. IS versions of the keyboards must be used with the Daisy Data 9122-9141 Intrinsic Safety Isolator.
2. For models ***DU-5K-FSR-NI*** and ***DU-5K-FSR-IS***, in order to avoid danger of ignition due to electrostatic charges, care must be taken to protect the conductive coating on the plastic housing from environmental conditions such as small particles in an air stream or solvent vapors that may affect its durability.
3. NI versions of the keyboard must be used with the Pepperl+Fuchs SK-PC-D2-UU1-10-HS Ex-rated barrier.

14. **Test and Assessment Procedure and Conditions:**

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. **Schedule Drawings**

A copy of the technical documentation has been kept by FM Approvals.

16. **Certificate History**

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Details of the supplements to this certificate are described below:

Date	Description
24 <sup>th</sup> August 2018	Original Issue.
4 <sup>th</sup> October 2018	<u>Supplement 1:</u> Report Reference: – PR451450 dated 4 <sup>th</sup> October 2018. Description of the Change: Add models DU-5K-FSR-IS and DU-5K-FSR-NI.
22 <sup>nd</sup> January 2019	<u>Supplement 2:</u> Report Reference: – RR215714 dated 22 <sup>nd</sup> January 2019. Description of the Change: Change the NI versions of the keyboard to be used with the Pepperl+Fuchs SK-PC-D2-UU1-10-HS Ex-rated barrier.

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