

TYPE EXAMINATION CERTIFICATE



[1]

[2]

Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

[3]

Type Examination Certificate Number: **DEMKO 15 ATEX 1522U Rev. 0**

[4]

Component: **Embedded System Series HAR15XXXX-XXXXX-XXX**

[5]

Manufacturer: **American Industrial Systems Inc.**

[6]

Address: **1768 McGaw Avenue, Irvine, CA 92614 USA**

[7]

This Component 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 certifies that this equipment has been found to comply with the Essential Health and Safety Requirements that relate to the design of **Category 3** equipment, which is intended for use in potentially explosive atmospheres. These Essential Health and Safety Requirements are given in Annex II to the European Union Directive 94/9/EC of 23 March 1994.

The examination and test results are recorded in confidential report number: **4786955007**

[9]

Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to Standards:

EN 60079-0:2012+A11:2013

EN 60079-11:2012

EN 60079-15:2010

[10]

The sign "U" placed after the certificate number indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective.

[11]

This Type examination certificate relates only to the design of the specified component, and not to specific items of equipment subsequently manufactured.

[12]

The marking of the equipment or protective system shall include the following:

 **II 3 G Ex ic nA IIC Gc**

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 are 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: 2015-07-30

Certification Body

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



[13]

Schedule

[14]

TYPE EXAMINATION CERTIFICATE No.

DEMKO 15 ATEX 1522U Rev. 0

Report: 4786955007

[15]

Description of Component:

This certificate covers Embedded System Models Series HAR15XXXX-XXXXX-XXX (X = A~Z, a~z, 0~9, "-", blank or slash, for marketing purpose). The "X" fields are options that are irrelevant to the type of protection. The HAR15XXXX-XXXXX-XXX series is an Embedded System, which contains electronic components mounted on PCBs, touchscreen panel with LED backlight, and then housed within a Metal Enclosure. These products are for use in Zone 2, Group IIC.

Electrical data

12 VDC, 6.6 A max

The optical radiation output of the apparatus with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 94/9/EC is covered in this certificate.

Routine tests

None.

[16]

Descriptive Documents

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

[17]

Schedule of limitations:

- Devices have not been evaluated to the enclosure requirements for the required protection method. The enclosure of the device must be evaluated as part of end product evaluation or installed in an enclosure that provides a degree of protection not less than IP 54 in accordance with EN 60079-15. Devices are for use in an area of not more than pollution degree 2 in accordance with IEC 60664-1.
- Devices are for use in -20°C to +50°C. During temperature test, the highest measured temperature within the device was 105.9°C at 50°C service temperature.
- Service temperature was determined during the maximum surface temperature tests. The below table indicates the service temperature of critical components:

Component	Service Temperature Range (°C)
Membrane Keypad	-20 to 70
Touchscreen Overlay (PET)	-20 to 69
Gasket between front and rear cover	-20 to 74

- Devices have been evaluated as a Low Power Apparatus regarding clearances, creepage distances and separation requirements; the devices are intended for installation in an area of not more than pollution degree 2 in accordance with IEC 60664-1 and an IP54 minimum enclosure.
- The power adapter was not evaluated with the devices to use in Hazardous Location.

[18]

Essential Health and Safety Requirements

Met by compliance with the standards EN 60079-0:2012+A11:2013, EN 60079-11:2012, EN 60079-15:2010.

