

EU-TYPE EXAMINATION CERTIFICATE



[1]

[2]

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

[3]

EU-Type Examination Certificate Number: **DEMKO 07 ATEX 0622294U Rev. 3**

[4]

Component: **Flameproof Enclosure**

[5]

Manufacturer: **Adalet, A Scott Fetzer Co.**

[6]

Address: **4801 W. 150th Street, Cleveland, OH 44135 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 the European Parliament and the Council, dated 26 February 2014, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to design and construction of components 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. **4787376758-07ATEX0622294U**

[9]

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

EN 60079-0:2012+A11:2013

EN 60079-1:2014

EN 60079-31:2014

[10]

The sign "U" is placed after the certificate number. It 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 system.

[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 this certificate.

[12]

The marking of the component shall include the following:

 **II 2 G Ex db IIC Gb**

 **II 2 G Ex db IIB + H₂ Gb**

 **II 2 D Ex tb IIIC Db IP66**

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 products 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: 2013-04-18

Re-issued: 2016-08-11



Notified Body

UL International Demko A/S, Ballerup 5A, 2750 Ballerup, Denmark
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[13]

Schedule

[14]

EU-TYPE EXAMINATION CERTIFICATE No.

DEMKO 07 ATEX 062294U Rev. 3

[15]

Description of Component:

The flameproof copper-free aluminum or 316 stainless steel XIHX, XIHMX, XIHMKX and XIHLX single ended enclosures, the 316 stainless steel XIHNSX single ended enclosures, the aluminum XIHNX single ended enclosures, and the XDXH, XDHM and XDHLX double ended enclosures with flat solid, dome solid, extended cover solid, flat glass and dome glass covers are intended to be used primarily as instrument housings. The single ended enclosures are similar to the double ended enclosures, except the double ended enclosures are provided with a threaded cover at both ends of the body. Up to three conduit entries can be provided in the double ended bodies, up to four conduit entries can be provided in the single ended bodies, and up to six conduit entries can be provided in the XIHNS models. Conduit entries are described in the control drawing Nos. DS411E, DS428E, DS430E, DS431E, DS437E, DS681E, DS908, DS911, and DS833.

Nomenclature for type:

XIH	FC	X
I	II	III

I – Enclosure Type

XIH – Single small body
 XDH – Double small body
 XIHM – Single medium body
 XIHMK – Single short medium “K” body
 XDHM – Double medium body
 XIHL – Single large body
 XDHL – Double large body
 XIHNS - Single ended body
 XIHN – Single ended body

Suitable for gas group

IIC
 IIB+H2
 IIC
 IIC
 IIB+H2
 IIC
 IIB+H2
 IIC
 IIC

II – Enclosure Covers

FC – Flat cover, (XIH, XDH, XIHM, XDHM, XIHMK, XIHL, XDHL, XIHN, XIHNS only)
 FGC – Flat glass cover, (XIH, XDH, XIHM, XDHM, XIHMK, XIHL, XDHL, XIHN, XIHNS only)
 DC – Dome cover, (XIH, XDH, XIHM, XDHM, XIHMK, XIHL, XDHL, XIHN, XIHNS only)
 DGC – Dome glass cover, (XIH, XDH, XIHM, XDHM, XIHMK, XIHL, XDHL, XIHN, XIHNS only)
 TGC - Truncated glass cover (XIHN only)
 MC – Midsize Flat cover, (XIHM, XDHM, XIHMK only)
 KFC – Flat cover, ‘K’ (XIHM, XDHM, XIHMK only)
 KFGC – Flat glass cover, ‘K’ (XIHM, XDHM, XIHMK only)
 EC – Extended cover, (XIHL, XDHL, only)

III – Additional Suffix

X – Suffix denotes European certification

Temperature range

The enclosures have been certified as components without stating the temperature range class (T1 – T6).

The enclosures have been evaluated for use in the following ambient temperature range:

The ambient temperature range is -50°C to +100°C for use with silicone o-rings.

The ambient temperature range is -34°C to +100°C for use with Nitrile Buna N o-rings.

Installation instructions

All unused enclosure openings must be fitted with a certified close-up plug equivalent of the enclosure and must be marked with an IP66 rating.

For ambient temperatures below -10 °C and above +60 °C use field wiring suitable for both minimum and maximum ambient temperature

Mounting instructions

Refer to “Instructions”.

Routine tests

Routine tests according to EN 60079-1 clause 16 are not required, as the enclosures have been successfully tested at four times the reference pressure, 62.6 bar.

[16]

Descriptive Documents

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

[17]

Schedule of limitations:

- Approval applies to equipment without cable glands. Only cable glands certified for protection types ‘d’, ‘db’, ‘tb’, and have an IP66 rating may be used.
- All unused device openings must be fitted with a certified close-up plug with protection types ‘db’, ‘tb’, and have an IP66 rating.
- Refer to Drawing No. DS833 for number, size, and position of entries.

[13]

Schedule

[14]

EU-TYPE EXAMINATION CERTIFICATE No. DEMKO 07 ATEX 062294U Rev. 3

- The content of the Ex component enclosure equipment may be placed in any arrangement provided that an area of at least 40% of each cross-sectional area remains free to permit unimpeded gas flow and therefore, unrestricted development of an explosion. Separate relief areas may be aggregated provided that each area has a minimum dimension in any direction of 12.5mm.
- No temperature tests were conducted as the enclosure is certified as an empty Ex component. The maximum service temperature is based off the ambient temperature of -50°C to +100°C for silicone o-rings or -34°C to +100°C for Nitrile Buna N o-rings.
- To minimize the risk of electrostatic charge, provisions shall be made for adequate grounding and equipment shall be installed in such a manner so that accidental discharge shall not occur
- Oil-filled circuit breakers and contactors shall not be used.
- Rotating machines, or other devices which create turbulence, shall not be incorporated.
- The cross-sectional area of the corresponding internal ground conductor must be taken into account during final product evaluation.
- The Hazardous Location Solutions reducers shall not be used for the direct inter-connection of enclosures.
- Only one Hazardous Location Solutions reducer shall be used with any single cable entry on the associated equipment.
- All conduit sealing fittings must be certified as flameproof 'db', dust protection by enclosure 'tb', and have a minimum IP66 rating equal to the marking on the enclosure.

[18]

Essential Health and Safety Requirements

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

Additional information

The enclosure has in addition passed the tests for Ingress Protection to IP 66 in accordance with EN60529:1991+A1:2000+A2:2013.

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.