

EC-TYPE EXAMINATION CERTIFICATE



[1]

[2]

**Component intended for use on/in equipment or protective system
intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

[3]

EC-Type Examination Certificate Number: **DEMKO 07 ATEX 0622294U Rev. 2**

[4]

Component: **Flameproof Enclosure**

[5]

Manufacturer: **Adalet/Scott Fetzer Co.**

[6]

Address: **4801 W. 150th Street, Cleveland, OH 44135 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, notified body number 0539 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, 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. **4786652472-07ATEX0622294U**

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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 60079-31:2009

[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 system.

[11]

This EC-Type examination certificate relates only to the design, examination and tests of the specified component in accordance with the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this component. These are not covered by this certificate.

[12]

The marking of the component shall include the following:

II 2 G Ex d IIC Gb

II 2 G Ex d IIB + H₂ Gb

II 2 D Ex tb IIIC Db IP66

Certification Manager

Jan-Erik Storgaard

Notified Body

This is to certify that the sample(s) of the Component described herein ("Certified Component") 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 component 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 component. UL has not established Follow-Up Service or other surveillance of the component. The Manufacturer is solely and fully responsible for conformity of all component 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

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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 XDHX, XDHMX 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.



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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.

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Descriptive Documents

Project Report No.: 4786652472-07ATEX0622294U (Hazardous Location Testing)

Documents:

Description:	Document No.:	Rev. Level:	Date:
XIHLX Series IP66 Large Series Instrument Housing Cert. Drawing (2 sheets)	DS411E	C	2015-01-20
XDHX Series IP66 Dual Instrument Housing Options (2 sheets)	DS428E	C	2015-01-20
XIHM Series Medium IP66 Explosionproof Instrument Housing Cert. Drawing (2 sheets)	DS430E	C	2015-01-20
XDHM Series Medium IP66 Explosionproof Dual Housing Cert. Drawing (2 sheets)	DS431E	C	2015-01-20
XDHLX Series Explosionproof Dual Housing Large Cert. Drawing (4 sheets)	DS437E	C	2015-01-20
XIHX Series IP66 Explosionproof Instrument Housing Cert. Drawing (2 sheets)	DS681E	C	2015-01-20
Installation Sheet (Medium)	DS643	D	2013-04-12
Installation Sheet (Large)	DS679	E	2013-04-12
Installation Sheet (Small)	DS683	D	2013-04-12
Nameplate Series XIHM	8165	A	2012-04-26
Nameplate Series XDHM	8166	A	2012-04-26
Nameplate Series XIHL	8167	A	2012-04-26
Nameplate Series XDHL	8168	A	2012-04-26
Nameplate Series XDHX	8164	A	2012-04-26
Nameplate Series XIHX	8163	A	2012-04-26
Close-Up Plug, Square Socket Head	5318-S	G	2012-09-10
Close Up Plug, Square Socket Head	5318	H	2012-09-10
Enclosure Entry Stuffer Sheet	DS833	C	2013-09-26
XIHNSX Series Enclosure Construction Drawing	DS908	B	2015-01-20
XIHNSX Series Installation Instructions	DS909	A	2013-04-12
O-ring Seals Buna N	5133	V	2013-07-02
Nameplate Series XIHNSX	8162	A	2012-04-26
Earthing connector	18813	B	2000-08-23
XIHNSX Series Enclosure Construction Drawing	DS911	B	2015-01-19
XIHNSX Series Installation Instructions	DS912	B	2015-01-25
XIHNSX Nameplate	8180	A	2013-05-06

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Schedule of limitations:

- Approval applies to equipment without cable glands. Only cable glands certified for protection types 'd', '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 'd', 'tb', and have an IP66 rating.
- Refer to Drawing No. DS833 for number, size, and position of entries.
- 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 'd', dust protection by enclosure 'tb', and have a minimum IP66 rating equal to the marking on the enclosure.

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Essential Health and Safety Requirements

Concerning ESR this Schedule verifies compliance with the ATEX directive only. The manufacturer's Declaration of Conformity declares compliance with other relevant Directives.

Additional information

The enclosure have passed the tests for Ingress Protection to IP 66 in accordance with EN60529: 1991/A1 2000.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in ANNEX III to Directive 94/9/EC of the European Parliament and the Council of 23 March 1994.

