

EC-TYPE EXAMINATION CERTIFICATE



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

[3] EC-Type Examination Certificate Number: **DEMKO 01 ATEX 130437X Rev. 2**

[4] Equipment or Protective System: **High Voltage Junction Box**

[5] Manufacturer: **Adalet/Scott Fetzer Company**

[6] Address: **4801 W. 150th Street, Cleveland, OH 44135 USA**

[7] This equipment or protective system 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 equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems 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. **13NK09771**

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

EN 60079-0:2012

EN 60079-7:2007

EN 60079-31:2009

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EC-Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by the certificate.

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

II 2 G Ex e II T5 Gb

II 2 D Ex tb IIIC T90°C Db IP66

Certification Manager
Jan-Erik Storgaard

Notified Body

This is to certify that the sample(s) of the Product(s) described herein ("Certified Product") 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 product sample(s) submitted by the Applicant. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured products. UL has not established Follow-Up Service or other surveillance of the product. The Applicant/Manufacturer are 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: 2002-02-05

Re-issued: 2013-10-17

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



[13]

[14]

[15]

Schedule
EC-TYPE EXAMINATION CERTIFICATE No.
DEMKO 01 ATEX 130437X Rev. 2
Report: 13NK09771

Description of Equipment or protective system

The Type HV series of enclosures are junction boxes provided with increased safety terminal blocks. These enclosures are manufactured of powder coated cold rolled steel, brushed finish stainless steel 304 and brushed finish steel 316L respectively and are available in various sizes and depths. The boxes consist of a cover, hinge assembly, body, grounding lug, gland plates, gaskets and two types of porcelain stand-offs used for terminal connections. The porcelain stand-offs may be provided with a 1x1 terminal construction or a 2x2 terminal construction. The enclosures may be mounted in a vertical or horizontal position and can be fitted with up to eight gland plates to provide future expansion and configuration.

The Type HV series of stainless steel enclosures are for high power use. The enclosures contain two types of porcelain stand-offs used for terminal connections and are either provided with 1x1 or 2x2 terminal construction.

Nomenclature for Type HV:

| | | | | |
|-----|-------|-----|----|-------|
| HV4 | -2412 | 06 | -A | R0010 |
| I | II | III | IV | V |

I – Enclosure Material

HV4 – Powder Coated Cold Rolled/Hot Rolled Steel

HV4X – Brushed Finish Stainless Steel 304

HV4X6 – Brushed Finish Stainless Steel 316L

II – Enclosure Sizes

Size (L x W) Dimensions in mm

| | |
|-------|------------|
| -1616 | 406 x 406 |
| -2012 | 508 x 305 |
| -2014 | 508 x 356 |
| -2016 | 508 x 406 |
| -2020 | 508 x 508 |
| -2412 | 610 x 305 |
| -2416 | 610 x 406 |
| -2420 | 610 x 508 |
| -2424 | 610 x 610 |
| -2518 | 635 x 457 |
| -3016 | 762 x 406 |
| -3020 | 762 x 508 |
| -3022 | 762 x 559 |
| -3024 | 762 x 610 |
| -3624 | 914 x 610 |
| -3625 | 914 x 635 |
| -6036 | 1524 x 914 |

III – Enclosure Depth

XX – Maximum 279 mm

IV – Gland Plate Location(s)*

A – Gland plate on top side

B – Gland plate on bottom side

C – Gland plate on left side

D – Gland plate on right side

*Omit dashes when multiple gland plates are installed.

V – Adalet Assembly Part Number

XXXXXX – Any five digit alphanumeric characters.



[13]

[14]

Schedule
EC-TYPE EXAMINATION CERTIFICATE No.
DEMKO 01 ATEX 130437X Rev. 2
Report: 13NK09771

Temperature range

The relation between ambient temperature and the assigned temperature class is as follows:

Ambient temperature range
-50°C to +55°C

Temperature class
T5

Terminal construction
2x2 and 1x1

Electrical data

Maximum Voltage - Type HV Series: 11 kV

Installation instructions

- All cable entry devices and blanking elements shall be certified for protection type 'e' and IP66.
- Unused apertures shall be closed with suitable blanking elements of protection type 'e' and IP66.
- For ambient temperatures below -10 °C and above +60 °C use field wiring suitable for both minimum and maximum ambient temperature.

Routine tests

Routine Dielectric Tests are required per Clause 7 of EN 60079-7:2007.

[16]

Report No.

Project Report No.: 13NK09771 (Hazardous Location Testing)

Documents:

Description:

Installation Sheet HV Series High Voltage Junction Boxes (4 sheets)

Nameplate for HV Series Increased Safety Enclosures with Terminal Blocks

Bisco Silicone Songe Gasket

HV4(X)(X6) Series High Voltage Junction Box 10 kV Maximum, 1 X 1 Phase (2 sheets)

HV4(X)(X6) Series High Voltage Junction Box 1.1 kV Maximum, 2 X 2 Phase (2 sheets)

Drawing No.: Rev. Level:

Date:

| | | |
|--------|---|------------|
| DS646 | D | 2013-09-27 |
| M3325 | G | 2013-09-27 |
| M1424 | C | 2012-06-20 |
| DS593M | G | 2013-09-27 |
| DS594M | F | 2013-09-27 |



[13]

[14]

Schedule
EC-TYPE EXAMINATION CERTIFICATE No.
DEMKO 01 ATEX 130437X Rev. 2
Report: 13NK09771

Terminal Content For HVX Series Enclosure Types

| Sheet No. | Size (L x W x H) Dimensions in mm | Enclosure Type | Rev. | Date: |
|-----------|--|-------------------|------|------------|
| DS949-1 | 610 X 305 X 152 | HV4(X)(X6)-241206 | A | 2013-10-04 |
| DS949-2 | 610 X 508 X 152 | HV4(X)(X6)-242006 | A | 2013-10-04 |
| DS949-3 | 508 X 305 X 152 | HV4(X)(X6)-201206 | A | 2013-10-04 |
| DS949-4 | 406 X 406 X 152 | HV4(X)(X6)-161606 | A | 2013-10-04 |
| DS949-5 | 610 X 406 X 152 | HV4(X)(X6)-241606 | A | 2013-10-04 |
| DS949-6 | 762 X 406 X 152 | HV4(X)(X6)-301606 | A | 2013-10-04 |
| DS949-7 | 508 X 508 X 152 | HV4(X)(X6)-202006 | A | 2013-10-04 |
| DS949-8 | 508 X 356 X 178 | HV4(X)(X6)-201407 | A | 2013-10-04 |
| DS949-9 | 635 X 457 X 178 | HV4(X)(X6)-251807 | A | 2013-10-04 |
| DS949-10 | 762 X 559 X 178 | HV4(X)(X6)-302207 | A | 2013-10-04 |
| DS949-11 | 914 X 635 X 178 | HV4(X)(X6)-362507 | A | 2013-10-04 |
| DS949-12 | 508 X 406 X 254 | HV4(X)(X6)-201610 | A | 2013-10-04 |
| DS949-13 | 762 X 508 X 254 | HV4(X)(X6)-302010 | A | 2013-10-04 |
| DS949-14 | 610 X 508 X 254 | HV4(X)(X6)-242010 | A | 2013-10-04 |
| DS949-15 | 762 X 610 X 254 | HV4(X)(X6)-302410 | A | 2013-10-04 |
| DS949-16 | 610 X 610 X 254 | HV4(X)(X6)-242410 | A | 2013-10-04 |
| DS949-17 | 914 X 610 X 254 | HV4(X)(X6)-362410 | A | 2013-10-04 |
| DS949-18 | 914 X 635 X 254 | HV4(X)(X6)-362510 | A | 2013-10-04 |
| DS949-19 | 1524 X 914 X 254 | HV4(X)(X6)-603610 | A | 2013-10-04 |
| DS949-20 | 1524 X 914 X 406 | HV4(X)(X6)-603616 | A | 2013-10-04 |
| DS949-21 | 508 X 508 X 203 | HV4(X)(X6)-202008 | A | 2013-10-04 |
| DS949-22 | 610 X 508 X 203 | HV4(X)(X6)-242008 | A | 2013-10-04 |
| DS949-23 | 610 X 610 X 203 | HV4(X)(X6)-242408 | A | 2013-10-04 |
| DS949-24 | 508 X 508 X 254 | HV4(X)(X6)-202010 | A | 2013-10-04 |
| DS949-25 | 762 X 508 X 203 | HV4(X)(X6)-302008 | A | 2013-10-04 |
| DS949-26 | 762 X 610 X 203 | HV4(X)(X6)-302408 | A | 2013-10-04 |
| DS949-27 | 914 X 610 X 203 | HV4(X)(X6)-362408 | A | 2013-10-04 |

[17]

Special conditions for safe use:

- These enclosures shall be installed to flat rigid surface using the mounting means provided.
- All unused device openings must be fitted with a certified close up plug equivalent of the apparatus and must be marked with an IP66 rating.
- The approval applies to equipment without cable/conduit entries. When installing cable or conduit entries, the cable/conduit fitting must be certified as flameproof 'd' or increased safety 'e', dust protection type 'tb', and have a minimum IP66 rating equal to the marking on the enclosure.
- Conductors shall be chosen that have a rating above the anticipated maximum ambient temperature. The operating temperature of conductors should be controlled at or below the conductor rating by coordinating conductor size, number of associated conductors, and ampacity for the particular conductor rating and ambient temperature.
- After installation, all creepage distances and clearances shall be according to Table 1 in EN 60079-7:2007.
- 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.

[18]

Essential Health and Safety Requirements

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



[13]

[14]

Schedule
EC-TYPE EXAMINATION CERTIFICATE No.
DEMKO 01 ATEX 130437X Rev. 2
Report: 13NK09771

Additional information

The HV series enclosure has in addition passed the tests for Ingress Protection to IP 66 in accordance with EN60529: 1991/A1 2001.

This certificate was issued as "Accredited by DANAK under registration number 7011 to certification of products".

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.

