

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No .:	IECEx UL 09.0031X	Issu	ue No: 8	Certificate history:	
Status:	Current	Dee	in 1 of E	Issue No. 8 (2019-07-17) Issue No. 7 (2014-04-18)	
Date of Issue:	2019-07-17	Pag	je 1 of 5	Issue No. 6 (2013-07-15) Issue No. 5 (2013-01-18) Issue No. 4 (2012-03-10)	
Applicant:	Adalet/Scott Fetzer Co. 4801 W. 150th Street Cleveland, OH 44135 United States of America			Issue No. 4 (2012-03-10) Issue No. 3 (2012-02-28) Issue No. 2 (2011-07-22) Issue No. 1 (2010-09-04) Issue No. 0 (2009-12-30)	
Equipment:	High Voltage Terminal Enclosures, Models XHVX followed by 121208, 161608, 162408, 181808, 182408, 183008, 183608, 242408, 243008, 243608, 162410, 164610, 182410, 183610, 242410, 243610 and XHVXSS6 followed by 121208, 161608, 182410, 242410, and 243610. All numbers may be followed by -N4.				
Optional accessory:					
Type of Protection:	Flameproof "db", Dust Ignition Protection by Er	nclosure "tb"			
E	Ex db IIB+H2 T6 Gb Ex db IIB T6 Gb Ex tb IIIC T73ºC Db IP66				
-	-20°C <u>≤</u> Tamb <u>≤</u> +55°C				
Approved for issue on Certification Body:	behalf of the IECEx	Lucy Frieders			
Position:		Staff Engineer			
Signature: (for printed version)		Amy fried	5		
Date:		2019-07-17			

1. This certificate and schedule may only be reproduced in full.

2. This certificate is not transferable and remains the property of the issuing body.

3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

UL LLC 333 Pfingsten Road Northbrook IL 60062-2096 United States of America





Certificate No:	IECEx UL 09.0031X	Issue No: 8
Date of Issue:	2019-07-17	Page 2 of 5
Manufacturer:	Adalet/Scott Fetzer Co. 4801 W. 150th Street Cleveland, OH 44135 United States of America	

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the

Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

US/UL/ExTR13.0027/02

Quality Assessment Report:

US/UL/QAR08.0003/08



Certificate No:	IECEx UL 09.0031X
Date of Issue:	2019-07-17

Issue No: 8

Page 3 of 5

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The XHVX series of terminal enclosures contain porcelain stand-offs used for terminal connections within the enclosures. The enclosures contain up to either six single lug connectors or three 4 lug connectors. Enclosures provided with a cover gasket (Model No. suffix N4) can be marked IP66 and are suitable for dust environments.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

• These enclosures shall be installed to a flat rigid surface using the mounting means provided.

• All unused openings must be fitted with certified flameproof 'db' and dust ignition protected 'tb' close up plugs and have a minimum ip rating equal to the marking on the enclosure.

• The approval applies to equipment without cable/conduit fittings. When installing cable or conduit entries, the cable/conduit fitting must be certified as flameproof 'db' and dust ignition protected 'tb' and have a minimum ip rating equal to the marking on the enclosure.

• The end user shall provide bonding means as necessary.

Clean box and cover flange before closing and tightening cover bolts.

· Alternate cover bolt pattern when tightening, see table for torque specs.

• The end user shall provide stress cone termination as necessary for shielded cables. For available Adalet termination kits consult factory.

• All conductors/cables shall be suitable for 90°C.

The number of conductors entering the enclosure shall not exceed indication on external nameplate. Ground conductors are not counted.
Metric threaded holes in the enclosure shall have a tolerance class of 6h or better according to ISO 965-1 and ISO 965-3, and any chamfer

 Metric threaded holes in the enclosure shall have a tolerance class of on or better according to or undercut is limited to a maximum depth of 2 mm from the external wall surface

• For installations using conduit. All conduit runs must have a sealing fitting within 2 inches [50mm] of the enclosure

• See outline drawings DS590m and DS591m for conduit/cable gland layout information.

• 40mm of the flameproof joints are other than the relevant minimum or maximum specified in Tables 1 through 2 of IEC 60079-1:2011. Enclosures are to be marked with an "X" and manufacturer's drawings no. DS590m and DS591m detail the dimensions of the flameproof joints. Flameproof joints are not intended to be repaired.

• When the enclosure is installed, a minimum of 40 mm separation between the flameproof flanged joint and any solid object, which is not part of the enclosure, shall be maintained

• All porcelain insulators and cable connections are to be free of grease and/or cleaning substances.

• Reference drawings DS590m and DS591m for identification of entries.

• Type 'bd' breather/drains are only suitable for bottom entry.

• The threads of the internal plug of the type 'bd' breather drains must be fully tightened within the main body and not protrude above the body surface.

• The threaded spigots of type 'bd' breather drains and taper threaded type 'be' breather drains are not permitted to protrude into the associated enclosure to maintain their ingress protection ratings.

• 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.

• Only one hazardous location solutions reducer shall be used with any single cable entry on the associated equipment.

• The hazardous locations solutions reducers shall not be used for the direct interconnection of enclosures.

• All plugs are for one time use only.

• Bolts are metric, class 8.8 min, class a4-70.



Certificate No:

IECEx UL 09.0031X

2019-07-17

Date of Issue:

Page 4 of 5

Issue No: 8

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 1: Addition of model numbers.

Issue 2: Conductor size on Model XHVX 181808 is being decreased. Conductor size is being changed on Models XHVX 161608, 181808, 183008, 183608, 243008, 243608, 162410, 164610 and 183610.

Issue 3: Updated the XHVX series of high voltage enclosures to IEC 60079-0 Fifth Edition. Also, added a 2 x 2 terminal construction to the enclosures.

Issue 4: Reference to routine testing for Model 121208.

Issue 5: Revisions were made to the ExTR's to clarify certain clauses.

Issue 6: Updating to the latest IEC 60079-0 Ed. 6 and IEC 60079-31 Ed. 1.

Issue 7: Nomenclature and drawing updates.

Issue 8: Added alternate certified Ex component enclosure for all XHVX models and updated certificate to latest editions of the applicable standards.



Certificate No:

IECEx UL 09.0031X

Date of Issue:

2019-07-17

Additional information:

Annex:

Annex to IECEx UL 09.0031X Issue 8.pdf

Issue No: 8

Page 5 of 5



Certificate No.:

IECEx UL 09.0031X

Issue No.: 8

Page 1 of 4

TYPE DESIGNATION

1X1 PHASE CONNECTION SERIES (Shielded or Un-Shielded Cable)

ENCLOSURE CATALOG NUMBER	MAX WORKING VOLTAGE	MAX CURRENT per phase(A)	ENCLOSURE CATALOG NUMBER	MAX WORKING VOLTAGE	MAX CURRENT per phase(A)
XHVX-121208(-N4)	2.5kV	160	XHVX-243008(-N4)	6.6kV	315
XHVX-161608(-N4)	6.6kV	200	XHVX-243608(-N4)	6.6kV	315
XHVX-162408(-N4)	6.6kV	315	XHVX-162410(-N4)	6.6kV	315
XHVX-181808(-N4)	6.6kV	225	XHVX-164610(-N4)	6.6kV	315
XHVX-182408(-N4)	6.6kV	315	XHVX-182410(-N4)	6.6kV	315
XHVX-183008(-N4)	6.6kV	315	XHVX-183610(-N4)	6.6kV	315
XHVX-183608(-N4)	6.6kV	315	XHVX-242410(-N4)	8kV	315
XHVX-242408(-N4)	6.6kV	315	XHVX-243610(-N4)	8kV	400

Stainless Steel Option, 1X1 PHASE CONNECTION SERIES				
ENCLOSURE CATALOG NUMBER	MAX WORKING VOLTAGE	MAX CURRENT per phase(A)		
XHVXSS6-121208 (-N4)	2.5kV	160		
XHVXSS6-161608(-N4)	6.6kV	200		
XHVXSS6-182410(-N4)	6.6kV	315		
XHVXSS6-242410(-N4)	6.6kV	315		
XHVXSS6-243610(-N4)	6.6kV	400		

2X2 PHASE CONNECTION SERIES (Two Parallel Cables Optional)

ENCLOSURE CATALOG NUMBER	MAX WORKING VOLTAGE	MAX CURRENT per phase(A)	ENCLOSURE CATALOG NUMBER	MAX WORKING VOLTAGE	MAX CURRENT per phase(A)
XHVX-182408(-N4)	2.5kV	630	XHVX-182410(-N4)	2.5kV	630
XHVX-183008(-N4)	2.5kV	800	XHVX-183610(-N4)	2.5kV	800
XHVX-183608(-N4)	2.5kV	800	XHVX-242410(-N4)	7.5kV	630
XHVX-242408(-N4)	5kV	630	XHVX-243610(-N4)	7.5kV	1000
XHVX-243008(-N4)	5kV	800			
XHVX-243608(-N4)	5kV	800			

Stainless Steel Option, 2X2 PHASE CONNECTION SERIES				
ENCLOSURE CATALOG MAX WORKING MAX CURRENT NUMBER VOLTAGE per phase(A)				
XHVXSS6-182410 (-N4)	2.5kV	315		
XHVXSS6-242410 (-N4)	6.6kV	315		
XHVXSS6-243610 (-N4)	6.6kV	400		



Certificate No.:

IECEx UL 09.0031X

Issue No.: 8 Page 2 of 4

PARAMETERS RELATING TO THE SAFETY

1 x 1 construction - 8000 V maximum, 400 A maximum

2 x 2 construction - 7500 V maximum, 1000 A maximum

MARKING

Marking has to be readable and indelible; it has to include the following indications:

ADALET IECEX UL 09.0031 Ex db IIB T6 Gb -/ Ex tb IIIC T73°C E	20≤Ta≤55°C
Cat. No.	
Serial No.	Max Voltage
DEMKO 12 ATEX 1104713X (€ 0539 ⟨Ex⟩ 2 G Ex db B T6 Gb -20≤Ta≤55°C	Max Amp/Conductor
(€ 0539 () II 2 D Ex tb IIIC T73°C Db IP66	
Class I, Groups BCD Class II, Groups EFG Class III TYPE 4 YEAR	Max # of Conductors
Class I, Zone 1, AEx d IIB T6 OR T5: -20≤Ta≤55°C	
WARNING - TO PREVENT THE ENTITION OF MAZARDOUS ATMOSPHERES, DISCONNECT FROM SUPPLY CIRCUIT BEFOR 31H4 ENCLOSURE FOR ENCLOSURE FOR USE IN ENCLOSURE FOR USE IN EXEMPTION OF MARKEN AND DEVICE IS REQUIRED IMMEDIATELY AT THE ENTRANCE OF THE ENCLOSURE, A ENCLOSURE FOR USE IN EXEMPTION OF THE APPLICATION OF THE APPLICATION	Y, FOR ZONE INSTALLATION LL CABLE ENTRIES, STOPPING
HAZARDOUS ATTENTION FOUR ÉNTIER L'INFLAMANTION DATIMOSPÈRES DAVIGEREURSE DI CICONIDICTER DU CIRCUT D'ALIMENTA LOCATIONS, AS SCTERE, GARDER GIEN FERRÉ L'ORGOUELES CIRCUTS SONT ACTIVES. RESTROVER LES BIERGES DE CU TO EXPLOSION AVANT DE LER REMETTRE EN FLACE, POUR LES INSTALLATIONS DE ENVISIONS OUL UTILISENT UN CONDIL AND FRE DÉTAICHÉTÉ DOIT ÉTRE CONVECTÉ DANS LES PREMIERS IN FRAMEN, POUR LES INSTALLATIONS DE L HAZARD ONLY. UN DISPOSITE D'ETAICHÉTÉ EST REQUIS IMMÉCIATEMENT À L'ENTREE DU BOITER, TOUTES LES ENTRET	DITACT DU COUVERCLE
DO NOT OPEN WHEN ENERGIZED	•



Certificate No.:

IECEx UL 09.0031X

Issue No.: 8

Page 3 of 4

Ex db IIB+H2 T6 Gb _20≤Ta≤55°C
ASSOCIE FEIZER COMPANY EX to IIIC T73°C Db IP66
Cat. No.
Serial No.
DEMKO 12 ATEX 1104713X
(E 0039 (E) 11 2 G EX 00 18+12 10 GD -2051250 C
C € 0539 ⓒ II 2 D Ex tb IIIC T73°C Db IP66
Class I, Groups BCD Class II, Groups EFG Max # of Conductors
Class I, Zone 1, AEx d IIB T6 OR T5; -20≤Ta≤55°C c(U)us SEE INSTALLATION INSTRUCTIONS
WARNING - TO PREVENT THE IGNITION OF NAZAROOUS ATMOSPHERES, DISCONDECT FROM SUPPLY GREAT BEFORE UNIT SOLUTION OF ACARONUS ATMOSPHERES, DISCONDECT FROM SUPPLY GREAT BEFORE UNITS NUTS FEE CLEARED BEFOREMARPLACING OPENING ENCLOSURE, KEET MICHATURY SUBJIC CONJULT, A SEALING CONJULATION, A SEALING CONJUL AS A SEALING CONJULATION, A SEALING CONJUL AS A SEALING CONJULATION, A SEALING CONJUL AS A SEALIN
USE IN BOXES OR PLUSS SHALL BE CERTIFIED FOR THE APPLICATION. HAZARDOUS ATTERITION - POUR ÉMTER L'INFLAMMATION D'ATMOSPÈRES DANGEREUSES, DÉCONNECTER DU CIRCUIT D'ALIMENTATION AVANT D'OUVRIR LE
TO EXPLOSION AVANT DE LER REMETTRE EN PLACE, POUR LES INSTALLATIONS DE DIVISIONS QUI UTLIBENT UN CONDUT, UN DISPOSITIF AND FIRE DÉTANCHÉITÉ DOIT ÊTRE CONNECTÉ DANS LES PREMIERS 18" (#0mm), POUR LES INSTALLATIONS DE LA ZONE À L'AIDE DE CONDUIT,
HAZARD CNLY. UN DISPOSITIE D'ÉTANCHEITÉ EST REQUISIMMÉDIATEMENT À L'ENTRÉE DU BOITER, TOUTES LES ENTRÉES DE CÀBLES, BOITES D'ARRÊT OU DES BOUCHOUS EN CENTRÉES TOURI L'ARRULATION. DO NOT OPEN WHEN ENERGIZED
DO NOT OF EN WHEN ENERGIZED
a Scott Fetzer company Ex db IIB 16 GD -20<1a<55°C Ex tb IIIC T73°C Db IP66
4601 WEST 150TH STREET CLEVELAND, OH 44135
Cat. No.
Serial No.
DEMKO 12 ATEX 1104713X
C€ 0539 (Ex) 2 G Ex db B T6 Gb -20 <ta<55°c< td=""></ta<55°c<>
(€ 0539 (€) 2 D Ex tb C T73°C Db P66
Class I, Groups BCD Class II, Groups EFG
Class III TYPE 4 YEAR Class I, Zone 1, AEx d IIB T6 OR T5: -20≤Ta≤55°C
31H4 OPENING ENCLOSUME, KEEP TIGHTLY CLOSED WHEN CIRCUITS ARE ALVE, COVER JOINTS MUST BE CLEANED BEFOREMERLACING COVER, FOR CIMISION INSTALLATIONS USING CONDUT, A SEALING DEMOSINED WITHIN 9" [Remail, FOR ZONE [INSTALLATION USING CONDUT, A SEALING DEMOSINED WITHIN 9" [Remail, FOR ZONE [INSTALLATION USING CONDUT, A SEALING DEMOSINED WITHIN 9" [Remail, FOR ZONE [INSTALLATION USING CONDUT, A SEALING DEMOSINED WITHIN 9" [Remail, FOR ZONE [INSTALLATION USING CONDUT, A SEALING DEMOSINED WITHIN 9" [Remail, FOR ZONE [INSTALLATION USING CONDUT, A SEALING DEMOSINED WITHIN 9" [Remail, FOR ZONE [INSTALLATION USING CONDUCT, A SEALING DEMOSINED WITHIN 9" [Remail, FOR ZONE [INSTALLATION USING CONDUCT, A SEALING DEMOSINED WITHIN 9" [Remail, FOR ZONE [INSTALLATION USING CONDUCT, A SEALING DEMOSINED WITHIN 9" [Remail, FOR ZONE [INSTALLATION USING CONDUCT, A SEALING DEMOSINED WITHIN 9" [Remail, FOR ZONE [INSTALLATION USING CONDUCT, A SEALING DEMOSINED INTEGRATIVATION OF THE ENCLOSURE, ALL CABLE ENTRES, STOPPING USE [INSTALLATION USING CONDUCT, A THE ENTRANCE OF THE ENCLOSURE, ALL CABLE ENTRES, STOPPING USE [INSTALLATION]
HAZARCOUS ATTENTION - POUR ÉMTER L'INFLAMMATION D'ATMOSPÈRES DANGEREUSES, DÉCONNECTER DU CIRCUIT D'ALIMENTATION AVANT D'OUVRIR LE LOCATIONS, AS BOTTER, GARDER NIEN FERRÉ LORSDUE LES CIRCUITS SONT ACTIVES NIETTOVER LES SURFACES DE CONTACT DU COUVERCLE TO EXPLOSION AVANT DE LER RAIENTER EN EN LES INSTALLATIONS DE EMISIONS OUT D'ALIMENTATION EVENTS.
AND FIRE DÉTANCHÉITÉ DOIT ÉTRE CONNECTÉ DANS LES PREMIERS 3" (Prime), POUR LES INSTALLATIONS DE LA ZONE À L'AIDE DE CONDUIT, HAZARD ONLY. UN DISPORTIF D'ÉTANCHÉITÉ EST REQUISIMMEDIATEMENT À L'ENTRÉE DU BOITER, TOUTES LES ENTRÉES DE CÂBLES, BOITES DURRÉE DU DES BOUCHORS DOINENT ÉTRE CORTINÉES POUR L'APPLICATION.
DO NOT OPEN WHEN ENERGIZED

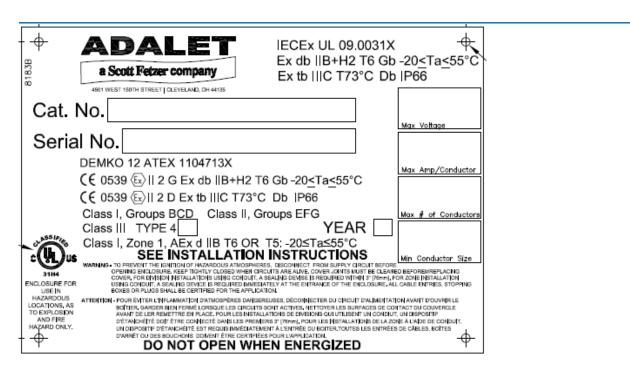


Certificate No.:

IECEx UL 09.0031X

Issue No.: 8

Page 4 of 4



LIST OF CERTIFIED COMPONENTS

The following additional previous editions of Standards noted under the "Standards" section of this Certificate were applied to integral Components as itemized below. There are no significant safety related changes between these previous editions and the editions noted under the "Standards" section.

Product	Certificate Number	Standards
Enclosure, XCEX and XCESX	IECEx UL 16.0081U	IEC 60079-0 6th Ed.
Series, manufactured by		
Adalet/Scott Fetzer Co.		