

### INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification System for Explosive Atmospheres**

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

Certificate No.: **IECEx UL 10.0046U** Page 1 of 4

Issue No: 3 Status: Current

Date of Issue: 2023-10-16

Applicant: Adalet/Scott Fetzer Co.

4801 W. 150th Street Cleveland, OH 44135 **United States of America** 

Equipment: Empty Enclosures, Series XCEX\*\*\*\*\*\* and XCESX\*\*\*\*\*\*-\*\*

Optional accessory: Plugs, Operators/Auxiliary Devices, Drain and Breather Fittings, Windows.

Type of Protection: Flameproof "db", Dust Ignition Protection by Enclosure "tb"

Marking: Ex db IIB Gb

Ex tb IIIC Db

Approved for issue on behalf of the IECEx Katy A. Holdredge

Certification Body:

Position: Senior Staff Engineer

Signature:

(for printed version)

(for printed version)

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Certificate history: Issue 2 (2012-05-31)

Issue 1 (2012-05-08) Issue 0 (2011-11-03)

Certificate issued by:

**UL Solutions (US)** 333 Pfingsten Road Northbrook IL 60062-2096 **United States of America** 





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Manufacturer: Adalet/Scott Fetzer Co.

4801 W. 150th Street Cleveland, OH 44135 United States of America

Manufacturing Adalet/Scott Fetzer Co.

locations: 4801 W. 150th Street
Cleveland, OH 44135
United States of America

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 equipment 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 Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

IEC 60079-1:2014 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

This Certificate **does not** indicate compliance with 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 Reports:

US/UL/ExTR10.0056/00 US/UL/ExTR10.0056/01 US/UL/ExTR10.0056/02

**Quality Assessment Report:** 

US/UL/ExTR10.0056/03

US/UL/QAR08.0003/11



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#### **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The XCEX and XCESX series of external flanged cast aluminium or 316 stainless steel enclosures may have conduit/cable entries in the box and openings in the cover for threaded circular windows, cemented in place rectangular windows, and threaded auxiliary device operators.

The XCEX 081004N4-S7620 enclosure is similar to the model No. XCEX 081004-N4 enclosure except for cover machining differences, four 3/8-16 UNC 2B cover operator openings.

The XCESX series is identical to the XCEX series of enclosures except that it is constructed from 316 stainless steel.

#### Please see Annex for additional information.

- · Contact Adalet for information on the dimensions of flameproof joints.
- The maximum number of apertures, their maximum sizes and their positions are referenced in drawing no. DS483M for the XCEX enclosures and drawing no. DS900M for the XCESX enclosures.
- · Oil-filled circuit-breakers and contactors shall not be used.
- Ambient temperature range is -40°C to +60°C for Models XCEX 041604, 060804, 060805, 060806, 061105, 061204, 061206, 061305, 071004, 071006, 071805, 080804, 080806, 080808, 081004, 081006, 081008, 081204, 081206, 081208, 091105, 101004, 101006, 123606, 123608, 124608, 141404, 141406, 141408, 142210, 142213, 142806, 161604, 161606, 161608, 162406, 162408, 162410, 162806, 163010, 163406, 164610, 181804, 181806, 181808, 182406, 182408, 182410, 183008, 183608, 183610, 203606, 203612, 204806 and 204812.
- Ambient temperature range is -20°C to +60°C for all other models.
- Content of the enclosure equipment may be placed in any arrangement, provided that an area of at least 20% of each cross-sectional
  area remains free to permit an 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 12.5 mm.
- Service temperature range of XGC30, XGC40, XGC52, and XGC66 windows is from -34°C to +100°C. Service temperature range of XGC10, XGC20, and XGC80 is -34°C to +70°C. Service temperature range of all other windows covered is -40°C to +70°C.
- For XCEX enclosures only: The XGC window assemblies shall be used with enclosures marked with an ambient temperature range of -20°C to +60°C only.
- Auxiliary devices were evaluated for use in -20°C to +40°C ambient. Consideration should be given to the effects if used outside this
  temperature range.
- The glass windows were tested for thermal shock to +100°C and were conditioned at +100°C. Consideration should be given to the effects of use outside of these temperatures.
- For XCEX enclosures only: The following blanking element part numbers shall be used with enclosures marked with an ambient temperature range of -20°C to +60°C only: 15562-7, 6014, 6084, 6085, and 7069.
- 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.



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### **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

Issue 1: Addition of XCESX Series of enclosures. The XCESX Series of enclosures are identical to the XCEX Series of enclosures, except for being constructed out of 316 stainless steel.

Issue 2: Addition of heat treated cover to Models XCEX 122005, 122404, 122406, 122408, 122410, 123006, 123604, 123606 and 123608 and increasing the cover thickness of Models XCEX 101008, 101206, 101404, 101406, 101408, 101410, 121204, 121206, 121208, 121804, 121806 and 121808. Also added the Houston facility as a manufacturer.

Issue 3: Update IEC 60079-0, IEC 60079-1, IEC 60079-31 to the latest editions. Remove QAR US/ETL/QAR11.0002/07 which is no longer supported. Addition of XCESX 081606, 161608, and 182410 enclosure models.

#### Annex:

Annex to IECEx UL 10.0046U Issue 3.pdf



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## **TYPE DESIGNATION**

Nomenclature:

Types of variants comprised by the certificate:

XCEX Series:

XCEX	<u>041604</u>	<u>N4</u>
	II	III

I. **Enclosure Series Designation** 

**XCEX** 

II. **Enclosure Size** 



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III. Environmental Rating
N4 - Type 4 Rating
N4X - Type 4X Rating

XCESX Series:

XCESX	081006	<u>N4</u>
Ī	П	Ш

I.Enclosure Series Designation XCESX

II. Enclosure Size 081006 101408 121208

122410

161608

182410 242410

243610

III. Environmental Rating
N4 - Type 4 Rating
N4X - Type 4X Rating

#### Pluas:

Model XPP3, XMPP, XPB1 N4, XPB2 N4, XPPH3 N4, XPPH4 N4, 5318 Series, XPP2 N4, OX, 5318-S Series and 6085.

### Operators/Auxiliary Devices:

Model XCS-1, XCS-2, XCS-3, XCS-4, XCS-5, XRB, XRBL, XBOS, XHDMC, XHDMCS, XHDPB, XHDPBS, XHKSC, XHKSL, XHKSS, XHKSS, XHKSSC, XHKSSL, XHKSSR, XHKSSS, XHPB, XHPBPL, XHPBM, XHPBMS, XHPBS, XHPBSPL, XHPPM, XHSC, XHSL, XHSR, XHSS, XHSSC, XHSSL, XHSSPL, XHSSR, XHSSS, XHSSPL, XPO, XPOL, XPOC, XPOCS, XPOS, XPOSL, XSSL-4P, XSSL-5P, XSSS-4P, XSSS-5P, XBO, XHPPMS, XIRBS, XMOBS-1 to -14, XMORBS, XIRB, XMOSS-1 to -3, XMOB-1 to -14, XMORB, XMOS-1 to -3, XCBH 21 XCBH 22, XCBH1GF-L, XCBH1GF-R, XPB1-GL1, XPB1-H1, XPB1-H2, XPB1-H3, XPB1GL2, XPB2-H1, XCBH2-1, XCBH2-2, XCBH2-3, XCBH2-4, XCBH2-X Series, XMOL, XLX, XLXS, XLX-G, XLSX-G, XLPS\_X, XLP\_X, XHPBLMS, XHPPLMS, XPBH1, XBOS2-6, XRSO1, XHPBPLG.

### **Drain and Breather Fittings:**

Model XDBH2 (IP 40 only).



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Windows:

Models XGC10, XGC20, XGC30, XGC40, XGC52, XGC66 and XGC80.

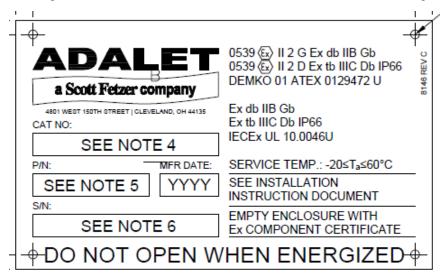
Model Series XGW:

XGW A B, Example XGW 0709 (7 in. x 9 in.)

01 – 1 in. (25 mm)	05 – 5 in. (130 mm)	10 – 10 in. (250 mm)	
015 – 1.5" (40 mm)	06 – 6 in. (150 mm)	11 – 11in. (280 mm)	
02 – 2 in. (50 mm)	07 – 7 in. (180 mm)	12 – 12 in. (300 mm)	
03 – 3 in. (80 mm)	08 – 8 in. (200 mm)	13 – 13 in. (330 mm)	
04 – 4 in. (100 mm)	09 – 9 in. (230 mm)		

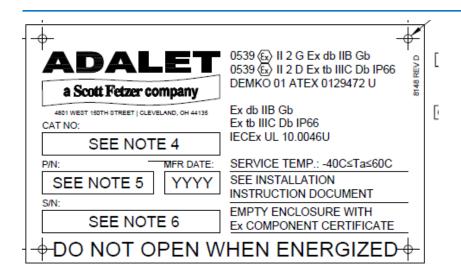
### **MARKING**

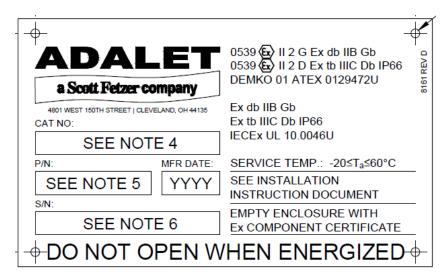
Marking has to be readable and indelible; it has to include the following indications:





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### **ROUTINE EXAMINATIONS AND TESTS**

Each piece of equipment defined above has to have successfully passed before delivery:

Routine Overpressure Tests per Clause 16.1.1 of IEC 60079-1 are required on the following XCEX models for an ambient range of -20°C to +60°C:

323612.

Routine Overpressure Tests per Clause 16.1.1. of IEC 60079-1 are required on the following XCEX models for an ambient range of -40°C to +60°C:

060804, 060805, 060806, 061105, 061204, 061206, 061305, 071004, 071006, 071805, 080804, 080806, 080808, 081004, 081006, 081008, 081204, 081206, 081208, 091105, 101004, 101006, 123606, 123608, 124608, 141404, 141406, 141408, 142210, 142213, 142806, 161604, 161606, 161608, 162406, 162408, 162410, 162806, 163010, 163406 and 164610