IECEx Certificate of Conformity

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 09.0017X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 5	Issue 4 (2016-04-18) Issue 3 (2015-02-25) Issue 2 (2014-10-15) Issue 1 (2013-03-06) Issue 0 (2009-07-13)
Date of Issue:	2021-11-04		
Applicant:	**Adalet/Scott Fetzer Co.** 4801 W. 150th Street Cleveland, OH 44135 **United States of America**		
Equipment:	**Terminal Enclosures, Type TSC Series**		
Optional accessory:			
Type of Protection:	**Increased Safety "e" and Dust "tb"**		
Marking:	Ex e IIC T6....T4 Gb Ex tb IIIC T120°C Db IP66 -20°C to +40°C for T6, -50°C to +40°C for T6 -20°C to +55°C for T5, -50°C to +55°C for T5 -20°C to +70°C for T4, -50°C to +70°C for T4		

Approved for issue on behalf of the IECEx Certification Body: **Katy A. Holdredge**

Position: **Senior Staff Engineer**

Signature: (for printed version)

Date: 2021-11-04

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 www.iecex.com or use of this QR Code.

Certificate issued by:

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

IECEx Certificate of Conformity

Manufacturer: **Adalet/Scott Fetzer Co.**
4801 W. 150th Street
Cleveland, OH 44135
United States of America

Additional manufacturing locations: **Adalet/Scott Fetzer Co.**
201 Cunard Street
Cardington, OH 43315
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 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-31:2008 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
Edition:1

IEC 60079-7:2006-07 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:4

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/ExTR09.0019/00 US/UL/ExTR09.0019/01 US/UL/ExTR09.0019/02
US/UL/ExTR09.0019/03 US/UL/ExTR09.0019/04

Quality Assessment Reports:

US/UL/QAR08.0003/10 US/UL/QAR16.0016/04

IECEx Certificate of Conformity

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

These are steel or stainless enclosure with screw secured covers and terminal blocks. The Type TSC series enclosures are manufactured of polyester powder coated steel or brushed series 304 and 316L stainless steel (respectively) and are available in various sizes and depths. The boxes consist of a cover, body, grounding lug, gland plates and gaskets. The enclosures may be mounted in a vertical or horizontal position and can be fitted with up to twelve (max.) gland plates.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- This certificate applies to equipment without cable/conduit entries. When installing cable or conduit entries, the cable/conduit entries must be certified as increased safety or flameproof, for protection type 'tb', and have a minimum IP66 rating. All unused conduit openings must be fitted with a certified close up plug equivalent of the apparatus and must be marked with an IP66 rating.
- The number of conductors entering the enclosure plus the number of internal connections (bridges and ground conductors are not counted) shall not exceed that of the Enclosure Size Terminal Content sheets.
- After installation, all creepage distances and clearances shall be according to Table 1 in IEC 60079-7, Fourth Edition.
- All conductors/cables shall be copper and shall be suitable for: 80°C when -20/-50°C ≤Ta≤+40°C, 95°C when -20/-50°C ≤Ta≤+55°C, 110°C when -20/-50°C ≤Ta≤+70°C.
- Each terminal block shall not be specified to accommodate more than one individual conductor in a clamping point unless specifically designed and assessed for doing so.
- For screwless connections intended for Class 5 or Class 6 fine stranded conductors according to IEC 60228, the fine stranded wire shall be equipped with a ferrule or the termination shall have a method to open the clamping mechanism so that the conductors are not damaged during installation of the conductor.
- The end user shall provide bonding means as necessary.
- See enclosure outline for conduit/cable layout information, minimum wire bending requirements, and minimum electrical clearance.
- 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.
- When two wires are used, they shall be of the same type and size.
- All unused terminals shall be tightened.

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Issue 1: Updated to standard IEC 60079-0 Ed. 5; Overall dimensions for the TSC series terminal enclosures changed, but the distance between securement points did not change.

Issue 2: Updated the standards to IEC 60079-0 Ed. 6 and IEC 60079-31 Ed. 1. Also, a pour-in-place gasket option was added.

Issue 3: Increased lower ambient from -20°C to -50°C for cover gasket and gland plate gasket combination on enclosures.

Issue 4: Update the enclosure maximum amount of gland plates from four to twelve.

Issue 5: Adds Manufacturer Adalet/Scott Fetzer Co., Cardington, OH (US/UL/QAR16.0016/04). No ExTR revision for this update.

Annex:

Annex to IECEx UL 09.0017X Issue 5 .pdf

IECEx Certificate of Conformity

Certificate No.: IECEx UL 09.0017X

Issue No.: 5

TYPE DESIGNATION

Nomenclature for Type TSC series:

TSC4	-18	18	08	-EMC	-A	R001
I	II	III	IV	V	VI	VII

I – Enclosure Material and Type
- TSC4 – Powder Coated Cold Rolled/Hot Rolled Steel Terminal Enclosure
- TSC4X – Brushed Finish Stainless Steel 304 Terminal Enclosure
- TSC4X6 – Brushed Finish Stainless Steel 316L Terminal Enclosure

II – Enclosure Length
- XX – Any two-digit number (max. 2100mm)

III – Enclosure Width
- XX – Any two-digit number (max. 10000mm)

IV – Enclosure Depth
- XX – Any two-digit number (max. 406mm)

V – EMC
- EMC shielding installed on cover

VI – Gland Plate Location(s)*
- A – Gland plate on topside
- B – Gland plate on bottom side
- C – Gland plate on left side
- D – Gland plate on right side
- E – Gland plate on back side

*Omit dashes when multiple gland plates are installed

PARAMETERS RELATING TO THE SAFETY

1.1 kV

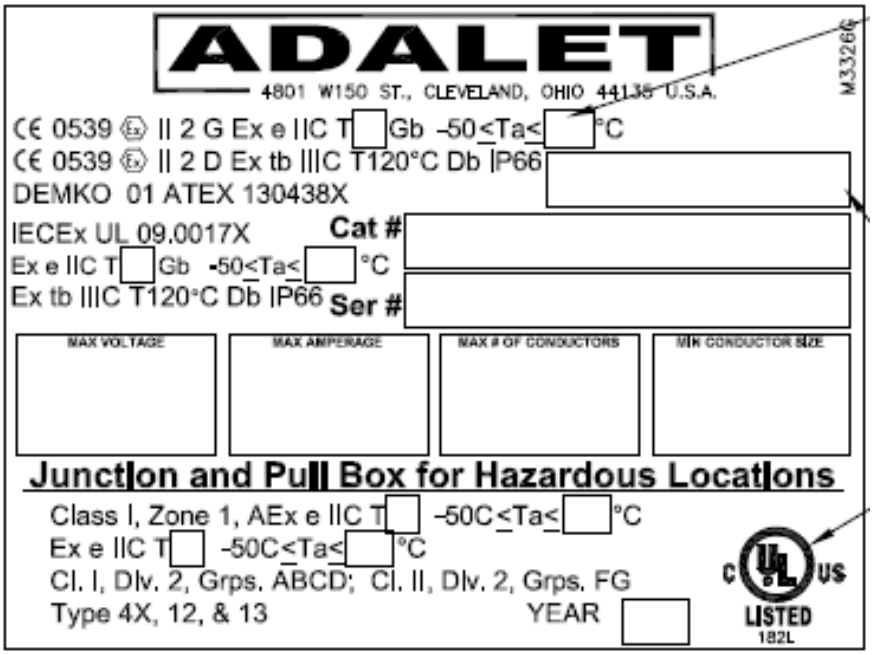
IECEx Certificate of Conformity

Certificate No.: IECEx UL 09.0017X

MARKING

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

.



ROUTINE EXAMINATIONS AND TESTS

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

Routine dielectric testing is required for the Phoenix Contact UT 2.5/35 detailed on DS589TB. The dielectric tests shall be performed per Clause 7.1 of IEC 60079-7 Forth Edition, in combination with Clause 6.1. The dielectric test shall be carried out at 1.2 times the test voltage and maintained for at least 100 milliseconds.