

EC-TYPE EXAMINATION CERTIFICATE



- [1]
- [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 130438X Rev. 5**
- [4] Equipment or Protective System: **Increased Safety Terminal Enclosures**
- [5] Manufacturer: **Adalet/Scott Fetzer Co.**
- [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. **2308034.565638**
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0:2012+A11:2013 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 IIC T6...T4 Gb

 II 2 D Ex tb IIIC T120°C Db IP66

Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Equipment described herein ("Certified Equipment") 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 equipment 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 equipment. UL has not established Follow-Up Service or other surveillance of the equipment. The Manufacturer is solely and fully responsible for conformity of all equipment 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: 2002-02-04

Re-issued: 2016-04-18



Notified Body

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

[13]

Schedule

[14]

EC-TYPE EXAMINATION CERTIFICATE No.

DEMKO 01 ATEX130438X Rev. 5

Report: 2308034.565638

[15]

Description of Equipment or protective system

These are steel or stainless steel enclosures 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 enclosures consist of a cover, body, grounding lug, gland plates, gaskets and terminal blocks. The enclosures may be mounted in a vertical or horizontal position and can be fitted with up to twelve (max.) gland plates.

Nomenclature for Type TSC series:

TSC4	-18	18	08	-EMC	-A	R0001
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 (Maximum 2100 mm)

III – Enclosure Width

XX – Any two-digit number (Maximum 1000 mm)

IV – Enclosure Depth

XX – Any two-digit number (Maximum 406 mm)

V – EMC

EMC shielding installed on cover

VI – 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

E – Gland plate on back side

*Omit dashes when multiple gland plates are installed

VII – Adalet Assembly Part Number

XXXXX – Any five digit alpha-numeric characters

Temperature range

The TSC series of enclosures have a Dust Temperature Rating of T120°C for all ambient temperature ranges.

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

Ambient temperature range

-20/-50°C to +40 °C

-20/-50°C to +55°C

-20/-50°C to +70°C

Temperature class

T6

T5

T4

Electrical data

Maximum working voltage: 1,1 kV

Installation instructions

- These enclosures shall be installed to a flat rigid surface using the mounting means provided.
- All cable entry devices and blanking elements shall be certified for protection type 'e', 'tb', and IP66.
- Unused apertures shall be closed with suitable blanking elements of protection type 'e', 'tb', 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 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 EN 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.

[16]

Descriptive Documents.

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this EC-Type Examination Certificate.

[13]

Schedule

[14]

EC-TYPE EXAMINATION CERTIFICATE No.

DEMKO 01 ATEX130438X Rev. 5

Report: 2308034.565638

[17]

Specific conditions of use:

- 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 EN 60079-7:2007.
- All conductors/cables shall be copper and shall be suitable for: 80°C when $-20/-50 \leq T_a \leq +40^\circ\text{C}$, 95°C when $-20/-50 \leq T_a \leq +55^\circ\text{C}$, 110°C when $-20/-50 \leq T_a \leq +70^\circ\text{C}$.
- 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 EN 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.

[18]

Essential Health and Safety Requirements

Concerning ESRs this Schedule verifies compliance with the Annex III of ATEX directive only. By placing the product on the market, the manufacturer declares compliance with other relevant Directives, and all other safety related requirements including those of Annex II of this Directive.

Additional information

The TSC Series have in addition passed the tests for Ingress Protection to IP 66 in accordance with EN60529:1991+A1:2000+A2:2013.

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.