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

Ex COMPONENT CERTIFICATE

Certificate No.: **IECEx DNV 22.0026U**

Certificate history:

Status: **Current**

Issue No: 0

Date of Issue: 2022-05-13

Applicant: **Hilti Aktiengesellschaft**
Feldkircherstraße 100
9494 Schaan
Liechtenstein

Ex Component: Cable Transit Devices

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection: **Ex eb, Ex tb**

Marking: Ex eb IIC Gb
Ex tb IIIC Db

Approved for issue on behalf of the IECEx Certification Body: **Asle Kaastad**

Position: **Certification Manager**

Signature:
(for printed version)

Date:
(for printed version)

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:

DNV Product Assurance AS
Veritasveien 1
1363 Høvik
Norway

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Manufacturing locations: **Hilti Aktiengesellschaft**
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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 component 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 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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 component listed has successfully met the examination and test requirements as recorded in:

Test Report:

NO/DNV/ExTR22.0025/00

Quality Assessment Report:

NO/DNV/QAR21.0010/00

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Ex Component(s) covered by this certificate is described below:

The Cable Transit Devices 'CTDs'(see Type Designation below) are available as rectangular- or circular frames with or without a flange made of mild- or stainless steel and installed with elastomeric rubber (EPDM) sealing arrangement for use with circular cables both armoured and non-armoured of non-interrupted and non-metallic outer jacket type or conduits. The circular frames are available in four to six different diameters and the rectangular frames are available in four single or several multiple configurations.

The internal sealing arrangement of the CTDs are based on a modular system made of EPDM (cable- & filler module- or plug variants CFS-T, RR or RRS) that depend on each individual size, accepts a limited number of cable diameters in applicable variant of CTDs and shall be marked with the Ex symbol. Filler modules may be used as blanking elements when no cables are installed.

The modules and plugs for sealing are made of two half parts of EPDM basic profiles for use with or without adapter modules and ends up with a solid EPDM core module. The adapter modules are made with three different colours (black, grey & red) to make the adaption to a cable exactly same on both halves. To achieve appropriate sealing and mechanical properties to prevent the cables from slippage the Hilti size gauge (ruler) must be used to identify the correct adapter module for the cable or conduit.

Compression devices are used to achieve appropriate compression of the modules and other components of the system, for rectangular CTDs there is a wedge and for circular CTDs there are two variants of plug-profiles, one RR profile that may be partly divided or un-divided in one corner and one RRS profile that incorporates both compression device and adapter modules for use with single cables or conduits.

The Ex components does not have a defined and incorporated sealing against the final enclosure wall and there are needs for supplementary type examinations and certification. See schedule of limitations for additional consideration regarding type of protection when fully assembled.

The CTD installation procedures and correct sizes and adaption of assembling the cables or conduits to the modules are described in detail in the enclosed installation instructions and to achieve correct sealing.

Type designation

CFS-T SS, CFS-T SSF, CFS-T SBF, CFS-T SL and CFS-T SLF.

Refer to scheduled document 2344286 for full type identification of the different sizes of single or multiple frames configurations

Service Temperature

-20°C to +75°C

Degrees of protection (IP Code)

IP66

In addition to Ex requirements the product has been separately tested against the requirements of IEC 60259:2001 and meet IP68 (immersion of 0,5m for 60min) for CFS-T SL and CFS-T SLF.

SCHEDULE OF LIMITATIONS:

1. For cable transit devices certified as an Ex component and marked with the symbol U, compliance with applicable requirements shall be verified, this includes mechanical test (if applicable) and test of degree of protection, which shall be carried out on the frame of the cable transit device (excluding modules and compression devices) after it has been installed on the enclosure of the apparatus subjected to test and certification.
2. For optimum reliability wait 48 hours or longer after installation before exposing the cables/pipes to strain or pressure.
3. For maintaining the explosion protection, the installation instructions that accompany the products shall be considered.
4. The marking label that accompany the products shall be placed according to the installation instructions.
5. Only to be used with cables for fixed installation.