



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 BVS 15.0075X**

Page 1 of 4

Certificate history:

Status: **Current**

Issue No: 3

Issue 2 (2019-07-11)

Issue 1 (2017-07-12)

Issue 0 (2015-09-10)

Date of Issue: 2021-03-22

Applicant: **FESTO AG & Co. KG**
Ruiter Straße 82
73734 Esslingen
Germany

Equipment: **Solenoid coils type VACC-S13-18-K4-...-EX4 ME**

Optional accessory:

Type of Protection: **Protection by Encapsulation "m", Protection by Enclosure "t", Increased Safety "e"**

Marking: **Ex eb mb IIC T* Gb**
Ex tb IIIC T*°C Db
* See Parameters

Approved for issue on behalf of the IECEx
Certification Body:

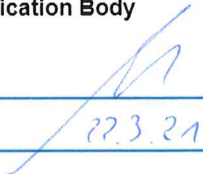
Jörg Koch

Position:

Head of Certification Body

Signature:
(for printed version)

Date:


22.3.21

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:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany

 **DEKRA**
On the safe side.



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Page 2 of 4

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Manufacturer: **FESTO AG & Co. KG**
Ruiter Straße 82
73734 Esslingen
Germany

Additional manufacturing locations: **FESTO Production EOOD**
Cristofor Columbus 7
1592 Sofia
Bulgaria

Festo SE & Co. KG
Plieninger Straße 50
Ostfildern-Scharnhausen 73760
Germany

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 60079-18:2017 Explosive atmospheres - Part 18: Protection by encapsulation "m"
Edition:4.1

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

Test Report:

[DE/BVS/ExTR15.0071/03](#)

Quality Assessment Report:

[NL/DEK/QAR12.0012/09](#)



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Page 3 of 4

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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Subject and type

Solenoid coils type VACC-S13-18-K4-...^{*1}...^{*2}ME

^{*1} The dots will be replaced by 1-3 numbers and letters that define the rated voltage and the installation of a fuse (letter F).

^{*2} The dots will be replaced by 1-3 numbers and letters that define the target region.

Description

The solenoid coils have been designed as an actuator for valves. They are designed in the type of protection Encapsulation "mb" or Protection by Enclosure "tb". For the power connection of the solenoid coils a connecting room in type of protection "eb" is available.

The housing is sealed at the top with a lid and at the bottom with sealing compound. On one side a thread is arranged for attaching one separately certified cable entry. In the enclosure, a coil and further electrical components are fitted.

The attachment to a valve and the mechanical design of the valves are not part of this Certificate.

Parameters

1 Electrical parameters

Type w/o fuse	VACC-S13-18-K4-1U-... ME	VACC-S13-18-K4-2U-... ME	VACC-S13-18-K4-3U-... ME	VACC-S13-18-K4-27U-... ...ME
Type with fuse	VACC-S13-18-K4-1UF-... ...ME	---	---	---
Rated voltage	24 V +/- 10 % DC or AC 40 to 65 Hz	110 V +/- 10 % DC or AC 40 to 65 Hz	230 V +/- 10 % DC or AC 40 to 65 Hz	60 V +/- 10 % DC or AC 40 to 65 Hz
Breaking capacity of installed fuse F	Littelfuse: 4000 A or ESKA: 300 A	---	---	---
Rated power	1.8 W / 1.8 VA			

2 Thermal parameters

2.1 Ambient temperature range and temperature class and surface temperature for all variants

Ambient temperature range	$-30\text{ °C} \leq T_a \leq +60\text{ °C}$	$-30\text{ °C} \leq T_a \leq +60\text{ °C}$	$-30\text{ °C} \leq T_a \leq +50\text{ °C}$
Maximum medium temperature	+60 °C	+60 °C	+50 °C
Ex eb mb IIC * Gb	T4	T5	T6
Ex tb IIIC * °C Db	T130 °C	T95 °C	T85 °C

SPECIFIC CONDITIONS OF USE: YES as shown below:

The solenoids have to be installed and used in a manner that electrostatic charges are excluded by operation, maintenance and cleaning.

Each solenoid coil that does not feature an internal fuse has to be provided with an external fuse to prevent short-circuits. Up to a rated voltage of 250 V, the breaking capacity of the fuse must be at least 1500 A.

In case of an internal fuse type with 300 A breaking capacity is a warning marking "Max. permissible short-circuit current of the power supply source 300 A" required.



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Page 4 of 4

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Additional manufacturing locations FESTO SE & Co. KG, 73760 Ostfildern/Scharnhausen, Germany and FESTO Production EOOD, 1592 Sofia, Bulgaria are added.