



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx PTB 15.0013 issue No.: 0 Certificate history:

Status: **Current**

Date of Issue: **2015-04-20** Page 1 of 5

Applicant: **Festo AG & Co. KG**
Ruiter Straße 82
D-73734 Esslingen
Germany

Electrical Apparatus: **Solenoid Coil, type VACN-N-A1-1-EX4-A**
Optional accessory:

Type of Protection: **Intrinsic Safety, Dust Ignition Protection by Enclosure**

Marking: Ex ia IIC/IIB T6/T4 Ga
or Ex ia IIC/IIB T6/T4
and Ex t IIIC T80 °C/T130 °C Db IP65
or Ex tb IIIC T80 °C/T130 °C IP65

Approved for issue on behalf of the IECEx
Certification Body:

Dr. Ing. U. Johannsmeyer

Position:

Head of department "Explosion Protection in Sensor Technology and Instrumentation"

Signature:
(for printed version)

Date:

2015-05-04

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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

Physikalisch-Technische Bundesanstalt (PTB)
Bundesallee 100
38116 Braunschweig
Germany





IECEx Certificate of Conformity

Certificate No.: IECEx PTB 15.0013

Date of Issue: 2015-04-20

Issue No.: 0

Page 2 of 5

Manufacturer: **Festo AG & Co. KG**
Ruiter Straße 82
D-73734 Esslingen
Germany

Additional Manufacturing location
(s):

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 electrical apparatus 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 : 2007-10 Edition: 5	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-11 : 2011 Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "I"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'

*This Certificate **does not** indicate compliance with electrical 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/PTB/ExTR15.0017/00](#)

Quality Assessment Report:
[NL/DEK/QAR12.0012/02](#)



IECEx Certificate of Conformity

Certificate No.: IECEx PTB 15.0013

Date of Issue: 2015-04-20

Issue No.: 0

Page 3 of 5

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The solenoid coil of type VACN-N-A1-1-EX4-A is an intrinsically safe apparatus intended for the application inside of hazardous areas which require EPL Ga and EPL Db.

When the solenoid coil is applied in areas where the existence of combustible dusts has to be expected, the appropriate plug connector of type MSSD-C-EX shall be used to assure the type of protection.

CONDITIONS OF CERTIFICATION: NO



IECEx Certificate of Conformity

Certificate No.: IECEx PTB 15.0013

Date of Issue: 2015-04-20

Issue No.: 0

Page 4 of 5

EQUIPMENT(continued):

Electrical Data

Supply only for connection to a certified intrinsically safe circuit of type of protection Ex ia IIC

Maximum values: $U_i = 28 \text{ V}$
 $I_i = 115 \text{ mA}$

or

only for connection to a certified intrinsically safe circuit of type of protection Ex ia IIB

Maximum values: $U_i = 32 \text{ V}$
 $I_i = 195 \text{ mA}$

L_i negligibly low

C_i negligibly low



IECEx Certificate of Conformity

Certificate No.: IECEx PTB 15.0013

Date of Issue: 2015-04-20

Issue No.: 0

Page 5 of 5

Additional information:

For relationship between type of equipment VACN-N-A1-1-EX4-A ..., temperature class as well as the electrical and thermal maximum values, reference is made to the following table:

... 00.1-.. to ... 49.1-..	Temperature class	U_i / I_i	Permissible range of the ambient temperature	Ex tb
Ex ia IIC	T6	28 V / 115 mA	-40 ... 50 °C	T80 °C
Ex ia IIB	T6	32 V / 195 mA	-40 ... 50 °C	T80 °C

... 50.1-.. to ... 99.1-..	Temperature class	U_i / I_i	Permissible range of the ambient temperature	Ex tb
Ex ia IIC	T4	28 V / 115 mA	-40 ... 85 °C	T130 °C
Ex ia IIB	T4	32 V / 195 mA	-40 ... 85 °C	T130 °C