



# 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](http://www.iecex.com)

Certificate No.: **IECEX PTB 20.0011X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-03-23

Applicant: **Eugen Seitz AG**  
Spitalstrasse 204  
8623 Wetzikon  
Switzerland

Equipment: **Solenoid, type 14F52**

Optional accessory:

Type of Protection: **Increased Safety, Encapsulation, Dust Ignition Protection by Enclosure**

Marking: Ex e mb IIC T6, T4 Gb  
Ex tb mb III C T80°C, T130°C Db

Approved for issue on behalf of the IECEx  
Certification Body:

**Dr. F. Lienesch**

Position:

**Head of Department "Explosion Protection in Sensor  
Technology and Instrumentation"**

Signature:  
(for printed version)

Date:

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Certificate issued by:

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





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Date of issue: 2020-03-23

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Manufacturer: **Eugen Seitz AG**  
Spitalstrasse 204  
8623 Wetzikon  
**Switzerland**

Additional  
manufacturing  
locations:

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 60079-18:2009** Explosive atmospheres Part 18: Equipment protection by encapsulation "m"  
Edition:3

**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 Report:

[DE/PTB/EXTR20.0013/00](#)

Quality Assessment Report:

[CH/SEV/QAR14.0001/03](#)



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Certificate No.: **IECEX PTB 20.0011X**

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Date of issue: 2020-03-23

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**EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The solenoid of type 14F52is used for the control in installations and systems where the occurrence of explosive atmospheres consisting of gas/air or dust/air mixtures is to be assumed. It is comprised of a magnet coil, an armature system and mounting accessories.

For more details refer to attached file.

**SPECIFIC CONDITIONS OF USE: YES as shown below:**

refer to attached file

**Annex:**

[COCA200011-00.pdf](#)



Applicant: Eugen Seitz AG  
Electrical Apparatus: solenoid, type 14F52

Description of equipment

The solenoid of type 14F52 is used for the control in installations and systems where the occurrence of explosive atmospheres consisting of gas/air or dust/air mixtures is to be assumed. It is comprised of a magnet coil, an armature system and mounting accessories.

Electrical data

|                   |   |
|-------------------|---|
| Type of voltage   | Alternating voltage, 50 Hz to 60 Hz or direct voltage with max. 45% residual ripple |
| Voltage tolerance | -10 % ... +10 %   |
| Butt mounting     | yes, center-to-center distance $\geq$ 55 mm   |

| Temperature class   | T4   |                         |                          |                          |                         |                         |        |
|---------------------|--|-------------------------|--------------------------|--------------------------|-------------------------|-------------------------|--------|
| Marking             | Ex e mb IIC T4 Gb<br>Ex tb mb IIIC T130°C Db<br>IP65, IP67 |                         |                          |                          |                         |                         |        |
| Ambient temperature | -40°C ... +60°C  |                         |                          |                          |                         |                         |        |
| Medium temperature  | -40°C ... +70°C  |                         |                          |                          |                         |                         |        |
|                     | Rated voltage  |                         | Rated current            |                          | Limit power             |                         | Fusing |
|                     | AC<br>$U_{N,AC}$<br>[V]                                    | DC<br>$U_{N,DC}$<br>[V] | AC<br>$I_{N,AC}$<br>[mA] | DC<br>$I_{N,DC}$<br>[mA] | AC<br>$P_{G,AC}$<br>[W] | DC<br>$P_{G,DC}$<br>[W] | [mA]   |
|                     | 12   |                         | 898                      | 990                      | 7.54                    | 8.93                    | 1600   |
|                     | 24   |                         | 439                      | 486                      | 7.71                    | 9.20                    | 1000   |
|                     | 36   |                         | 291                      | 322                      | 7.77                    | 9.29                    | 600    |
|                     | 48   |                         | 189                      | 209                      | 6.93                    | 8.31                    | 400    |
|                     | 110  |                         | 90                       | 100                      | 7.58                    | 9.10                    | 200    |
|                     | 115  | -                       | 95                       | -                        | 8.18                    | -                       |        |
|                     | 120  | -                       | 99                       | -                        | 8.79                    | -                       |        |
|                     | 125  |                         | 79                       | 87                       | 7.51                    | 9.0                     | 150    |
|                     | 220  |                         | 47                       | 53                       | 7.90                    | 9.51                    | 100    |
|                     | 230  | -                       | 50                       | -                        | 8.48                    | -                       |        |
|                     | 240  | -                       | 52                       | -                        | 9.16                    | -                       |        |

| Temperature class       | T6  |                          |                          |                         |                         |        |
|-------------------------|---|--------------------------|--------------------------|-------------------------|-------------------------|--------|
| Marking                 | Ex e mb IIC T6 Gb<br>Ex tb mb IIIC T80°C Db<br>IP65, IP67 |                          |                          |                         |                         |        |
| Ambient temperature     | -40°C ... +50°C   |                          |                          |                         |                         |        |
| Medium temperature      | -40°C ... +70°C   |                          |                          |                         |                         |        |
| Rated voltage           |   | Rated current            |                          | Limit power             |                         | Fusing |
| AC<br>$U_{N,AC}$<br>[V] | DC<br>$U_{N,DC}$<br>[V]                                   | AC<br>$I_{N,AC}$<br>[mA] | DC<br>$I_{N,DC}$<br>[mA] | AC<br>$P_{G,AC}$<br>[W] | DC<br>$P_{G,DC}$<br>[W] | [mA]   |
| 12                      |   | 399                      | 440                      | 3.77                    | 4.48                    | 1000   |
| 24                      |   | 179                      | 198                      | 3.57                    | 4.28                    | 500    |
| 36                      |   | 108                      | 119                      | 3.30                    | 3.97                    | 250    |
| 48                      |   | 90                       | 100                      | 3.68                    | 4.43                    | 200    |
| 110                     |   | 40                       | 44                       | 3.74                    | 4.51                    | 100    |
| 115                     | -   | 42                       | -                        | 4.06                    | -                       |        |
| 120                     | -   | 43                       | -                        | 4.38                    | -                       |        |
| 125                     |   | 31                       | 35                       | 3.41                    | 4.11                    | 75     |
| 220                     |   | 20                       | 22                       | 3.74                    | 4.52                    | 50     |
| 230                     | -   | 21                       | -                        | 4.06                    | -                       |        |
| 240                     | -   | 22                       | -                        | 4.39                    | -                       |        |

#### Special conditions for safe use

1. An external fuse (according to DIN 41571 or IEC 60127-2-1) corresponding to the type shall be connected in series to each solenoid as short circuit protection. Alternatively, a motor protecting switch with short circuit- and thermal instantaneous tripping can be connected in series. This shall be adjusted to the respective rated current of the solenoid. The rated voltage of the fuse shall be higher than or equal to the specified rated voltage of the magnet. The breaking capacity of the fuse link shall be equal to or higher than the prospective maximum short-circuit current (usually 1500 A). The fuse may be accommodated inside the associated supply unit or shall be connected in series separately.
2. Connecting cables and connecting lines shall be suitable for permanent application in a temperature range of  $-40\text{ °C}$  up to  $+105\text{ °C}$ .
3. When using silicone or silicone-containing cables for connection or cables which are not scratch-proof, these shall be protected against mechanical damage.
4. The armature tube should be subjected to a routine test with 1.5 fold the nominal operating pressure.