



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 SEV 16.0005X**

Page 1 of 4

Certificate history:
Issue 0 (2016-05-23)

Status: **Current**

Issue No: 1

Date of Issue: 2021-09-28

Applicant: **Wandfluh Hydraulik + Elektronik AG**
Helkenstrasse 13
3714 Frutigen
Switzerland

Equipment: **Solenoid coil M*Z45-***-*****

Optional accessory:

Type of Protection: **ia**

Marking: **Ex ia I Ma**
Ex ia IIC T5 Ga
Ex ia IIC T6 Ga



Approved for issue on behalf of the IECEx
Certification Body:

Martin Plüss

Position:

Manager Product Certification

Signature:
(for printed version)

Date:

2021-09-28

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:

Eurofins Electric & Electronic Product Testing AG
Luppenstrasse 3
CH-8320 FEHRALTORF
Switzerland



E&E



IECEX Certificate of Conformity

Certificate No.: **IECEX SEV 16.0005X**

Page 2 of 4

Date of issue: 2021-09-28

Issue No: 1

Manufacturer: **Wandfluh Hydraulik + Elektronik AG**
Helkenstrasse 13
3714 Frutigen
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 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

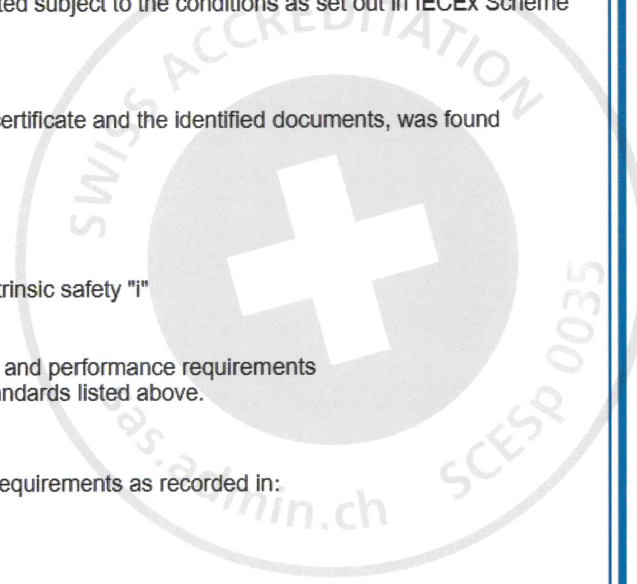
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[CH/SEV/ExTR16.0006/01](#)

Quality Assessment Report:

[CH/SEV/QAR16.0001/04](#)





IECEX Certificate of Conformity

Certificate No.: **IECEX SEV 16.0005X**

Page 3 of 4

Date of issue: 2021-09-28

Issue No: 1

EQUIPMENT:

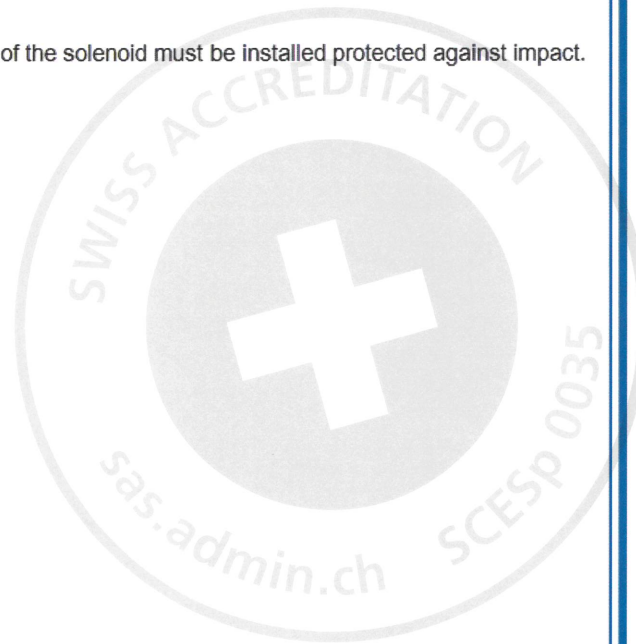
Equipment and systems covered by this Certificate are as follows:

Solenoid coil M*Z45-***-***

The solenoid coils serve for actuation of hydraulic valves. At type M*Z45-*** the coil will be mounted on to the axial armature tube. The solenoid coils consist of a coil and a printed circuit board which are totally encapsulated inside a metal enclosure. The Group I version has optionally a connection box with terminals (type MKZ45-****) or with a connector (type MBZ45-****).

SPECIFIC CONDITIONS OF USE: YES as shown below:

For Group I types MBZ45-****, MDZ45-****, MGZ45-**** and MJZ45-**** the connector of the solenoid must be installed protected against impact.





IECEX Certificate of Conformity

Certificate No.: **IECEX SEV 16.0005X**

Page 4 of 4

Date of issue: 2021-09-28

Issue No: 1

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

1. The IEC 60079-26 is removed because the device is not considered to be in the scope of this standard.
2. The deviations of the standard IEC 60079-0:2017 was checked in accordance with the actual current standard for the mentioned apparatus. The device complies with the actual current standard generation.
3. This CoC replaces IECEx 16.0005X Issue0

Annex:

[16.0005X app i1.pdf](#)



Annexe to: IECEx SEV 16.0005X

Issue No.: 1
 page 1 of 2

Applicant Name: Wandfluh Hydraulik + Elektronik AG

Equipment: Solenoid coil

Rated ambient temperature range:

Group and Temperature class	Permissible ambient temperature range		
	Type M238	Type 224	Standard type
Group I	-60 °C to +60 °C	-40 °C to +60 °C	-25 °C to +60 °C
Group IIC T5	-60 °C to +60 °C	-40 °C to +60 °C	-25 °C to +60 °C
Group IIC T6	-60 °C to +45 °C	-40 °C to +45 °C	-25 °C to +45 °C

Ratings:

Supply and signal circuit in type of protection intrinsic safety Ex ia I respective Ex ia IIC, only for connection to a certified intrinsically safe circuit.
 Maximum values:

Group I

$U_i \leq 30 \text{ V}$

$I_i \leq 3.25 \text{ A}$

$P_i \leq 7 \text{ W}$

$C_i = 0$

$L_i = 0$

Group IIC

$U_i \leq 30 \text{ V}$

$I_i \leq 0.8 \text{ A}$

$P_i \leq 3 \text{ W}$

$C_i = 0$

$L_i = 0$

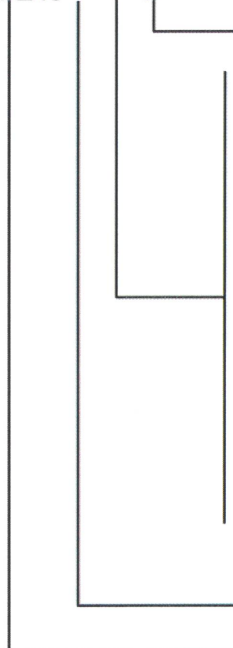
Annexe to:
IECEX SEV 16.0005X
Issue No.: 1

page 2 of 2

Part number code:

Instead of the *** in the complete denomination letters or numerals will be inserted which characterize modifications:

Type M*Z45-***-***#*



Change Index	Consecutive number	#2
Country specific certificate	None Inmetro Australia Nepsi Tbd (add if applicable)	Blank /IM /AUS /NP /tbd
Special version	None Mining (new Standard) -25 °C (Standard) -40 °C ambient -60 °C ambient Tbd (add if applicable)	Blank M233 Blank M224 M238 tbd
Corrosion protection	Zinc Nickel (Standard) AISI 316L	Blank -K9
Resistance	Ohm	-nnn
Electrical connection	Junction box Bajonett DIN-connector Deutsch-connector AMP Junior Timer	K B D G J