



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 SEV 14.0002 Issue No: 2 Certificate history:
Issue No. 2 (2017-01-10)
Status: Current Page 1 of 5 Issue No. 1 (2015-06-19)
Issue No. 0 (2014-07-02)
Date of Issue: 2017-01-10
Applicant: Rotronic AG
Grindelstrasse 6
8303 Bassersdorf
Switzerland
Equipment: Rotronic HygroFlex-EX
Optional accessory:
Type of Protection: Increased safety "e", Intrinsic safety "i", Encapsulation "m", Protection by enclosure "t"
Marking: Ex eb ia mb IIC T5 T4 Ga/Gb
Ex ia tb IIIC T 80 °C ... T 110 °C Da/Db

Approved for issue on behalf of the IECEx
Certification Body:

Martin Plüss

Position:

Manager Product Certification

Signature:
(for printed version)

Date:

2017-01-10

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:

Electrosuisse div. Testing and Certification
Luppenstrasse 1
CH-8320 FEHRALTORF
Switzerland





IECEX Certificate of Conformity

Certificate No: IECEX SEV 14.0002

Issue No: 2

Date of Issue: 2017-01-10

Page 2 of 5

Manufacturer: **Rotronic AG**
Grindelstrasse 6
8303 Bassersdorf
Switzerland

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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-18 : 2014 Edition:4.0	Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"
IEC 60079-26 : 2014-10 Edition:3.0	Explosive atmospheres – Part 26: Equipment with Equipment Protection Level (EPL) Ga
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

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:

CH/SEV/ExTR14.0003/02

Quality Assessment Report:

CH/SEV/QAR14.0002/01



IECEX Certificate of Conformity

Certificate No: IECEx SEV 14.0002

Issue No: 2

Date of Issue: 2017-01-10

Page 3 of 5

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Rotronic HygroFlex Ex device is a dual-channel meter for precise humidity and temperature measurement in an explosive atmosphere, where an ex classification is required. It consists of a measuring sensor and signal converter. The connected sensor is encapsulated in a stainless steel sensor tube and is designed for use in Zone 0/20. The transmitter itself is only designed for use in Zone 1/21 or Zone 2/22. The transmission signal is composed of two two-channel current loop interfaces, where the signal is formed in an accurate flow of each 4 to 20 mA. Between the measurement circuit on the secondary side and the primary side is a galvanic separation.

Ratings and types see page 5

CONDITIONS OF CERTIFICATION: NO





IECEX Certificate of Conformity

Certificate No: IECEx SEV 14.0002

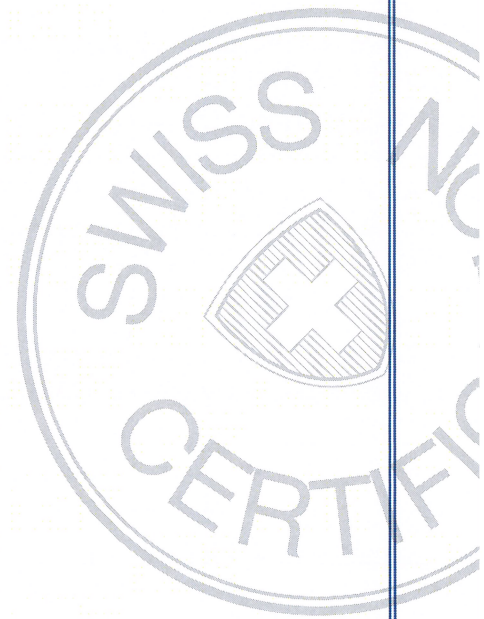
Issue No: 2

Date of Issue: 2017-01-10

Page 4 of 5

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Update of standards





IECEx Certificate of Conformity

Certificate No: IECEx SEV 14.0002

Issue No: 2

Date of Issue: 2017-01-10

Page 5 of 5

Additional information:

Ratings: 20 ... 28 V DC resp.. 24 V DC +/- 15 %, I_{max}: 50 mA

Classification of installation and use: stationary

Ingress protection: IP66

Rated ambient temperature range (°C):

T_{amb} = [-10 °C...+60 °C] with LCD

T_{amb} = [-40 °C...+60 °C] without LCD

T_{amb} = [-40 °C...+60 °C] for sensor part (T5) resp. T80 °C

T_{amb} = [-40 °C...+85 °C] for sensor part (T4) resp. T110 °C

Types:

HygroFlex Transmitter:

HF520-EX-WxxxDxxx

HF520-EX-WxxxXxxx

HF520-EX-DxxxDxxx

HF520-EX-DxxxXxxx

Sensors:

HC2-IMxxx-EX

HC2-IExxx-EX

HC2-SM-EX

HC2-LDPxxx-EX

