



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

Ex COMPONENT CERTIFICATE

Certificate No.: IECEx INE 18.0003U Issue No: 0 Certificate history:
Issue No. 0 (2018-07-30)

Status: Current Page 1 of 4

Date of Issue: 2018-07-30

Applicant: SCHNEIDER ELECTRIC
FR - 92506 RUEIL-MALMAISON
France

Ex Component: CONTROL AND SIGNALING UNITS TYPE XB4B...EX, XB4B...GEX and ZB...GEX

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection: **d e m t**

Marking:

Ex eb mb IIC Gb or

Ex db eb IIC Gb or

Ex db eb mb IIC Gb

Ex tb IIIC Db

Approved for issue on behalf of the IECEx
Certification Body:

Olivier COTTIN

Position:

Head of Equipment and Corporate Services Unit

Signature:
(for printed version)



Date:

2018.07.30

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.

Certificate issued by:

INERIS
Institut National de l'Environnement Industriel
et des Risques, BP n2
Parc Technologique ALATA
France

INERIS



IECEX Certificate of Conformity

Certificate No: IECEx INE 18.0003U Issue No: 0
Date of Issue: 2018-07-30 Page 2 of 4
Manufacturer: SCHNEIDER ELECTRIC
FR - 16340 L'ISLE D'ESPAGNAC
France

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 Component 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 Ex Component 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 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-18 : 2014 Edition:4.0	Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"
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 Ex Component listed has successfully met the examination and test requirements as recorded in

Test Report:

FR/INE/ExTR18.0004/00

Quality Assessment Report:

FR/INE/QAR12.0009/04



IECEx Certificate of Conformity

Certificate No: IECEx INE 18.0003U

Issue No: 0

Date of Issue: 2018-07-30

Page 3 of 4

Schedule

Ex Component(s) covered by this certificate is described below:

Control and signaling units type XB4B ...GEX are fitted with a control or signaling head ZB4B ... associated with a ZBE...GEX contact and/or ZBV...GEX pilot light and/or ZBWD...GEX diode. The Dusts version XB4B...EX is fitted with a control or signaling head ZB4B ... associated with standards contact and/or pilot light and/or diode. The enclosure of ZBE ...GEX contact cover is made of plastic material. It contains an electrical contact "NO" or "NC". The enclosure of the light ZBV...GEX and those of the diode is made of plastic material. It contains, either, an electronic circuit and one LED or one diode.

SCHEDULE OF LIMITATIONS:

The contact type ZBE...GEX, the pilot light and the diode type ZBWD...GEX have to be integrated into an enclosure protected by a recognized type of protection adapted to the area.

The control units types ZB4BJ..., ZB4BD..., ZB4BG..., ZB4BA... et ZB4BP... have to be protected from light.

During the installation, the user will take into consideration that the heads types ZB4B... underwent only a shock corresponding to an energy of a low risk.



IECEX Certificate of Conformity

Certificate No: IECEx INE 18.0003U

Issue No: 0

Date of Issue: 2018-07-30

Page 4 of 4

Additional information:

Annex:

IECEX INE 18.0003U-00_Annex.pdf



IECEx Certificate of Conformity

Certificate No.: IECEx INE 18.0003U

Issue No.: 0

Page 1 of 4

Annex: IECEx INE 18.0003U-00_Annex.pdf

PARAMETERS RELATING TO THE SAFETY

Gas/Dusts version:

Contact type ZBE...GEX:

Maximum voltage : 415 V
Maximum current : 10 A

Service temperature: -50°C to +75°C.
Ambient temperature range: -50°C to +75°C.

For the pilot light type ZBV...GEX:

Nominal voltage : from 24 to 254 V AC/DC
Nominal current : from 2 to 10 mA

For the diode type ZBWD...GEX:

Maximum voltage : 230 V AC/DC
Maximum current : 50 mA
Maximum power : 0.06 W

Service temperatures of non-metallic parts of the pilot light and the diode: -40°C to +95°C

Dusts version only:

Contact:

In AC :

Ue max : 600 V, Ie : 1.2 A
Or Ue : 240 V, Ie : 3 A
Or Ue : 120 V, Ie : 1.2 A

In DC :

Ue max : 600 V, Ie : 0.1 A
Or Ue : 250 V, Ie : 0.27 A
Or Ue : 125 V, Ie : 0.25A

Pilot light :

Ue : from 24 to 254 VAC
Ue : 24 V AC/DC

Diode :

Ue max : 230 V AC/DC
Ie max : 50 mA
P max : 0.06 W



IECEx Certificate of Conformity

Certificate No.: IECEx INE 18.0003U

Issue No.: 0

Page 2 of 4

Annex: IECEx INE 18.0003U-00_Annex.pdf

Service temperature and protection degrees IP of the associated control units:

References	Service temperatures	protection degrees IP
XB4BS..., XB4BT...	-20°C to +65°C	IP65
XB4BD..., XB4BC..., XB4BV..., XB4BP...BM5	-20°C to +75°C	IP65
XB4BA..., XB4BG..., XB4BJ..., XB4BP...	-20°C to +75°C	IP66

MARKING

Marking must be readable and indelible; it must include the following indications:

Contact alone:

SCHNEIDER ELECTRIC
FR - 16340 L'ISLE D'ESPAGNAC
ZBE...GEX*
IECEx INE 18.0003U
Ex db eb IIC Gb
Rated voltage and current

Associated control unit + contact:

SCHNEIDER ELECTRIC
FR-16430 L'ISLE D'ESPAGNAC
XB4B...GEX*
IECEx INE 18.0003U
Ex db eb IIC Gb
Ex tb IIIC Db
Rated voltage and current

Pilot light alone:

SCHNEIDER ELECTRIC
FR-16430 L'ISLE D'ESPAGNAC
ZBVBM...GEX
IECEx INE 18.0003U
Ex eb mb IIC Gb
Rated voltage and current



IECEx Certificate of Conformity

Certificate No.: IECEx INE 18.0003U

Issue No.: 0

Page 3 of 4

Annex: IECEx INE 18.0003U-00_Annex.pdf

heads + pilot light:

SCHNEIDER ELECTRIC
FR-16430 L'ISLE D'ESPAGNAC
XB4BV...GEX*
IECEx INE 18.0003U
Ex eb mb IIC Gb
Ex tb IIIC Db
Rated voltage and current

heads + pilot light + contact:

SCHNEIDER ELECTRIC
FR - 16340 L'ISLE D'ESPAGNAC
XB4BP...BM5GEX*
IECEx INE 18.0003U
Ex db eb mb IIC Gb
Ex tb IIIC Db
Rated voltage and current

heads + pilot light + contact + diode:

SCHNEIDER ELECTRIC
FR - 16340 L'ISLE D'ESPAGNAC
XB4BW...BM5GEX*
IECEx INE 18.0003U
Ex db eb mb IIC Gb
Ex tb IIIC Db
Rated voltage and current

Diode alone:

SCHNEIDER ELECTRIC
FR - 16340 L'ISLE D'ESPAGNAC
ZBWD...GEX
IECEx INE 18.0003U
Ex eb mb IIC Gb
Rated voltage and current

Dusts version only:

SCHNEIDER ELECTRIC
FR - 16340 L'ISLE D'ESPAGNAC
XB4B...EX*
IECEx INE 18.0003U
Ex tb IIIC Db

() items are replaced with numbers or characters corresponding to functions*

Marking may be carried out in the language of the country of use.

The protective system or equipment has also to carry the marking normally stipulated by its construction standards.



IECEx Certificate of Conformity

Certificate No.: IECEx INE 18.0003U

Issue No.: 0

Page 4 of 4

Annex: IECEx INE 18.0003U-00_Annex.pdf

ROUTINE EXAMINATIONS AND TESTS

For the contact ZBE...GEX:

In accordance with clause 7.1 of the IEC 60079-7 standard, each piece of the contact ZBE has to have successfully passed, before delivery, a dielectric strength test, performed according to the relevant standards. In accordance with clause 16.2 of the IEC 60079-1 standard, the contact ZBE is exempted of routine test in owing to the fact that its internal volume is less than 10 cm³.

For the pilot light ZBV...GEX and the diode ZBWD...GEX:

In accordance with clause 7.1 of the IEC 60079-7 standard, each component defined above has to have successfully passed, before delivery, a test of dielectric performed according to the relevant standards.

In accordance with clause 9.1 from the IEC 60079-18 standard, a visual examination of encapsulation.

In accordance with § 9.2 of the IEC 60079-18, a test of dielectric strength under a voltage to 2U+1000 volts between active parts and encapsulant surface during a minimum of one second.

For the heads:

No required.