INERIS
INSTITUT NATIONAL DE L'ENVIRONNEMENT
INDUSTRIEL ET DES RISQUES

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(2) **Component intended to be incorporate into equipment or protective system intended for use in explosive atmospheres Directive 94/9/EC**

(1) EC-TYPE EXAMINATION CERTIFICATE

(3) Number of the EC type examination certificate: **INERIS 02ATEX9007U**

(4) Component:

SWITCH TYPE ZBWE-...

(The points are replaced by numbers and letters corresponding to manufacturing variation)

(5) Manufacturer: **TECHNOR ATEX**

(6) Address: ZA Les Montagnes
F – 16430 CHAMPNIERS

(7) This component and any other acceptable alternative of this one are described in the appendix of this certificate and the descriptive documents quoted in this appendix.

(8) The INERIS, notified body and identified under number 0080, in accordance with article 9 of Council Directive 94/9/EC 23rd March 1994, certifies that this component fulfils the Essential of Health and Safety Requirements relating to the design and construction of equipment and protection systems intended for use in potentially explosive atmospheres, described in appendix II of the Directive.

The examinations and the tests are consigned in official report No P43158/02.

(9) The respect of the Essential Health and Safety Requirements is ensured by:

- conformity with:

EN 50 014	of June	1997 + A1 and A2
EN 50 018	of November	2000
EN 50 019	of July	2000
EN 50 281-1-1	of September	1998 + A1

- specific solutions adopted by the manufacturer to meet the Essential Health and Safety Requirements described in the descriptive documents.

(10) Sign U, when it is placed following the Number of the EC type examination certificate, indicates this one should not be wrongly considered as an EC type examination certificate delivered for equipment or protective system. This partial certification may be used as a basis for the certification of equipment or protective system.

(11) This EC type examination certificate refers only to the design and the construction of the component specified. Further requirements of the Directive apply to the manufacturing process and supply of this component. These are not covered by this certificate.

(12) The marking of the component will have to contain:

⟨Ex⟩ II 2 GD **EEx ed IIC**

Verneuil-en-Halatte, 2002 12 31

X. LEFEBVRE

Engineer at the Laboratory of Certification of ATEX Equipment

Director of the Certifying Body,
By delegation
B. PIQUETTE
Deputy manager of Certification

ATMOSPHERES EXPLOSIVES ORGANISME NOTIFIE INERIS NOTIFIED BODY EXPLOSIVE ATMOSPHERES

(13) # ANNEX

(14) EC TYPE EXAMINATION CERTIFICATE N°INERIS 02ATEX9007U

(15) DESCRIPTION OF COMPONENT

The enclosure, made in polyester or polyamide, is intended to contain a switch.

PARAMETERS RELATING TO THE SAFETY

Maximum supply voltage : 415 V
Maximum intensity : 6 A
Maximum dissipated power: 1 W

Thermal stability of the microswitch : 80°C.

MARKING

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

- TECHNOR ATEX
  F - 16430 CHAMPNIERS
- ZBWE-...(*)
- INERIS 02ATEX9007U
-  II 2 GD EEx ed IIC
- Nominal voltage and current

(*) The points are replaced by numbers and letters corresponding to the manufacturing variation.

The whole of marking can be carried out in the language of the country of use.

The component must also carry the marking normally envisaged by the standards of construction which relate to it.

ROUTINE EXAMINATIONS AND TESTS

According to 16.2 of standard EN 50 018, the apparatus is exempted of routine test due to the fact that the volume is less than 10 cm^3.

According to 7.1 of the EN 50 019, each example defined above must have successfully passed before delivery a dielectric strength test.

(16) DESCRIPTIVE DOCUMENTS

The report is composed of the documents quoted hereafter, constituting the descriptive file of the apparatus, object of this certificate.

- Technical file TN066A04 rév.01 dated on 2002.11.05 and signed on 2002.12.26

This file includes 4 items (11 pages).

(17) SPECIAL CONDITIONS FOR SAFE USE

The switch must be integrated into an enclosure protected by a protection mode compatible with the considered utilisation.

(18) ESSENTIAL REQUIREMENTS OF SAFETY AND HEALTH

The respect of the Essential Health and Safety Requirements is ensured by:

- conformity to the European standards EN 50 014, EN 50 018, EN 50 019 and EN 50281-1-1.
- the whole of the provisions adopted by the manufacturer and described in the descriptive documents.

ADDITION

(3) **INERIS 02ATEX9007U/01**

(4) SWITCH TYPE ZBWE-...

(5) Made by TECHNOR ATEX

(15) PURPOSE OF THE ADDITION

Possibility of associating control units, type ZB4 ZD4 ZB5 or ZD5, to the switch ZBWE with modification of the type.

These control units are defined in the descriptive documents of the manufacturer.

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety are unchanged.

MARKING

When the switch is associated with a control unit the marking defined in the basic certificate is modified as follows:

TECHNOR ATEX
F - 16430 CHAMPNIERS
XBW4-...(*) or ZDW4-...(*) or XBW5-...(*) or ZDW5-...(*)
INERIS 02ATEX9007U
Ex II2GD EEx ed IIC IP66

(*) points are replaced by numbers and letters corresponding to the variant of manufacture.

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.

ROUTINE EXAMINATIONS AND TESTS

The routine examinations and tests are unchanged.

(16) DESCRIPTIVE DOCUMENTS

The descriptive documents quoted hereafter constitute the technical documentation describing the modification of the equipment, subject of this present addition.

- Certification file n°TN066A04 rev.2 of 2004.09.01 signed on 2004.10.01

  This file includes 13 items.

(17) SPECIAL CONDITIONS FOR SAFE USE

The special conditions are modified as follows:

The control unit associated to the switch and forming types XBW4BS834, XBW4BS844, XBW4BS934, XBW4BS944, XBW5AC..., XBW5AT... and XBW5AS... will have to be protected by a mechanical device in case of high side shock risk.

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

The respect of the Essential Health and Safety Requirements is unchanged.

Verneuil-en-Halatte, 2008 02 11

ATMOSPHERES EXPLOSIVES ORGANISME NOTIFIE INERIS NOTIFIED BODY EXPLOSIVE ATMOSPHERES

S. MAUGER
Project Manager at the ATEX
Equipment Evaluation Laboratory

Director of the Certifying Body,
By delegation
T. HOUEIX
Certification Officer
Certitication Division

ADDITION

(3) INERIS 02ATEX9007U/02

(4) SWITCH TYPE ZBWE-... or XBW4-... or ZDW4-... or XBW5-... or ZDW5-...

(5) Made by TECHNOR ATEX

(15) PURPOSE OF THE ADDITION

Addition of a new variant up to 16 A to the switch type ZBWE.

Application of the standards EN 60079-0 : 2006, EN 60079-1 : 2007, EN 60079-7 : 2003, EN 61241-0 : 2006 and EN 61241-1 : 2004.

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety are modified as follows:

For the switch type ZBWE 6 A:

Maximum supply voltage : 400 V
Maximum intensity : 6 A

For the switch type ZBWE 16 A:

Maximum supply voltage : 600 V
Maximum intensity : 16 A

Fot both two types:

Temperature of use : from -20°C to +80°C

MARKING

The marking is modified as follows:

TECHNOR ATEX
F-16430 CHAMPNIERS
ZBWE-... or XBW4-... or ZDW4-... or XBW5-... or ZDW5-...(*)
INERIS 02ATEX9007U
Ex II 2 GD

Ex d e IIC
Ex tD A21 IP66
Rated voltage and current

(*) points are replaced by numbers and letters corresponding to the variant of manufacture.

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.

ROUTINE EXAMINATIONS AND TESTS

The routine examinations and tests are unchanged.

(16) DESCRIPTIVE DOCUMENTS

The descriptive document quoted hereafter constitutes the technical documentation describing the modification of the equipment, subject of this present addition.

- Certification file n°TN066A04 rev.3 of 2009.02.24 (19 rubrics) signed on 2009.02.24

(17) SPECIAL CONDITIONS FOR SAFE USE

The special conditions are completed as follows:

Specific dimensions of the flameproof joints for a maximal internal volume of 2 cm^3:

Cylindrical joint on the rod:

- Minimum width : 6 mm
- Maximal gap : 0,15 mm

Cemented joint on the bushing:

- Minimum width : 3 mm

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

The respect of the Essential Health and Safety Requirements is assured by:

- The conformity to the standards indicated in paragraph (15).
- The whole of the provisions adopted by the manufacturer and described in the descriptive documents.

Verneuil-en-Halatte, 2009 03 17

ATMOSPHERES EXPLOSIVES ORGANISME NOTIFIE INERIS NOTIFIED BODY EXPLOSIVE ATMOSPHERES

Director of the Certifying Body,
By delegation
T. HOUEIX
Certification Officer
Certification Division

ADDITION

(3) INERIS 02ATEX9007U/03

(4) SWITCH TYPE ZBWE-... or XBW4-... or XBW5-...

(5) Made by TECHNOR ATEX

(15) PURPOSE OF THE ADDITION

Use of the following standards:

-	EN 60079-0	: 2009	IEC 60079-0	: 2007
-	EN 60079-1	: 2007	IEC 60079-1	: 2007
-	EN 60079-7	: 2007	IEC 60079-7	: 2006
-	EN 60079-31	: 2009	IEC 60079-31	: 2008

Change of type of gasket.

Control units associated to the switch ZBWE offer IP65 protection degrees according to EN/IEC 60529 standard.

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety are modified as follows:

Service temperature of non-metallic parts:

- For the types XBW4-BA..., XBW4-BL..., XBW4-BD..., XBW4-BD...9, XBW4-BC..., XBW4-BG..., XBW4-BH..., XBW4-BJ..., XBW4-BP..., XBW5-AD..., XBW5-AD...9, XBW5-AG..., XBW5-AJ... and XBW5-PA... : -20°C to +75°C.
- For the types XBW4-BS..., XBW4-BT..., XBW5-AC..., XBW5-AP... and XBW5-AS... : -20°C to +65°C.
- For the type ZBWE...: -20°C to +80°C.

Ambient temperature range of use of type ZBWE-...: -20°C to +60°C.

MARKING

The marking is modified as follows:

TECHNOR ATEX
F-16430 CHAMPNIERS
ZBWE-... or XBW4-... or XBW5-...(*)
INERIS 02ATEX9007U
Ⓔx II 2 GD
Ex d e IIC Gb
Ex tb IIIC Db
Rated voltage and current

ROUTINE EXAMINATIONS AND TESTS

Unchanged.

(16) DESCRIPTIVE DOCUMENTS

The descriptive documents quoted hereafter constitute the technical documentation describing the modification of the equipment, subject of this present addition.

- Descriptive note ZBW010A12 rev.3 dated on 2013.04.10 and signed on 2013.05.13
- Instruction note ZBW010A26-04 dated on 2013.04.10 and signed on 2013.05.13

(17) SPECIAL CONDITIONS FOR SAFE USE

The special conditions for safe use are achieved as follows:

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

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

The respect of the Essential Health and Safety Requirements is ensured by:

- Conformity to the standards quoted in clause (15).
- All provisions adopted by the manufacturer and defined in the descriptive documents.

Verneuil-en-Halatte, 2013.05.22

ATMOSPHERES EXPLOSIVES ORGANISME NOTIFIE INERIS NOTIFIED BODY EXPLOSIVE ATMOSPHERES

The Chief Executive Officer of INERIS
By delegation
T. HOUEIX
Ex Certification Officer

ADDITION

(3) INERIS 02ATEX9007U/04

(4) SWITCH TYPE ZBWE-.... or XBW4-.... or XBW5-....

(5) Made by TECHNOR ATEX

(15) PURPOSE OF THE ADDITION

Modification of the switch type ZBWE....,

Control units associated to the switch ZBWE-.... get IP65 or IP66 protection degrees according to EN/IEC 60529 standard.

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety are modified as follows:

Switch type ZBWE-.... :

- Service temperature: -50°C to +75°C.
- Ambient temperature range of use of type ZBWE-...: -50°C to +75°C.

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

References	Service temperatures	protection degrees IP
XBW4-BS..., XBW4-BT..., XBW5-AC..., XBW5-AP..., XBW5-AS...	-20°C to +65°C	IP65
XBW4-BD..., XBW4-BC..., XBW5-AG...	-20°C to +75°C	IP65
XBW4-BA..., XBW4-BL..., XBW4-BD...9, XBW4-BG..., XBW4-BH..., XBW4-BJ..., XBW4-BP..., XBW5-AD..., XBW5-AD...9, XBW5-AJ..., XBW5-PA...	-20°C to +75°C	IP66

MARKING

The marking is modified as follows:

Switch alone:

TECHNOR ATEX
F-16430 CHAMPNIERS.
ZBWE-....
INERIS 02ATEX9007U
Ⓔx II 2 G
Ex d e IIC Gb
Rated voltage and current

Associated control units :

TECHNOR ATEX
F-16430 CHAMPNIERS.
XBW4-.... or XBW5-....
INERIS 02ATEX9007U
Ⓔx II 2 GD
Ex e IIC Gb
Ex tb IIIC Db

ROUTINE EXAMINATIONS AND TESTS

The routine examinations and tests are unchanged.

(16) DESCRIPTIVE DOCUMENTS

The descriptive documents quoted hereafter constitute the technical documentation describing the modification of the equipment, subject of this present addition.

- Addition n°4 to the technical file n°TN066A04 dated and signed on 2013.05.20

(17) SPECIAL CONDITIONS FOR SAFE USE

The special conditions for safe use are unchanged.

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

The respect of the Essential Health and Safety Requirements is unchanged.

Verneuil-en-Halatte, 2013.10.01

ATMOSPHERES EXPLOSIVES ORGANISME NOTIFIE INERIS NOTIFIED BODY EXPLOSIVE ATMOSPHERES

The Chief Executive Officer of INERIS,
By delegation
T. HOUEIX
Ex Certification Officer