

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx BVS 11.003	3 issue No.:0	Certificate history:
Status:	Current		
Date of Issue:	2011-05-26	Page 1 of 5	
Applicant:	FHF Funke + Hus Gewerbeallee 15-19 45478 Mülheim a. d. Germany	•	
Electrical Apparatus: Optional accessory:	Ruggedized ExII tel	ephone	
Type of Protection:	protection encapsu	on by intrinsic safety "i", Constructi lation 'm' electrical apparatus, Equip on by enclosures "tD", Protection by	oment protection by increased
	outery o , i rotooti	on by cholosules to , Protection by	intrinsic safety 'iD'
Marking:	Ex emb [ib] IIC T6/T Ex tD [ibD] A21 IP6	5	r intrinsic safety 'iD'
Marking:  Approved for issue on b Certification Body:	Ex emb [ib] IIC T6/T Ex tD [ibD] A21 IP60	5	r intrinsic safety 'iD'
Approved for issue on b	Ex emb [ib] IIC T6/T Ex tD [ibD] A21 IP60	5 5 T80°C/T100°C	rintrinsic safety 'iD'
Approved for issue on b Certification Body:	Ex emb [ib] IIC T6/T Ex tD [ibD] A21 IP60	5 5 T80°C/T100°C HCh. Simanski	v intrinsic safety 'iD'

3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

**DEKRA EXAM GmbH** Dinnendahlstrasse 9 44809 Bochum Germany





Certificate No.:

IECEx BVS 11.0033

Date of Issue:

2011-05-26

Issue No : 0

Page 2 of 5

Manufacturer:

FHF Funke + Huster Fernsig GmbH

Gewerbeallee 15-19 45478 Mülheim a. d. Ruhr

Germany

#### 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

#### 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: 2004

Electrical apparatus for explosive gas atmospheres - Part 0: General requirements

Edition: 4.0

IEC 60079-11: 2006

Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

Edition: 5

IEC 60079-18: 2004

Electrical apparatus for explosive gas atmospheres - Part 18: Construction, test and marking of type of protection encapsulation 'm' electrical apparatus

Edition: 2.0 IEC 60079-7: 2006-07

Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

Edition: 4

IEC 61241-0: 2004

Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements

Edition: 1

Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by

IEC 61241-1: 2004

Edition: 1 IEC 61241-11: 2005

Electrical apparatus for use in the pressence of combustible dusts - Part 11: Protection by

Edition: 1

intrinsic safety 'iD'

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:

DE/BVS/ExTR11.0058/00

Quality Assessment Report:

DE/BVS/QAR07.0004/03



Certificate No.:

IECEx BVS 11.0033

Date of Issue:

2011-05-26

Issue No.: 0

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### Schedule

#### **EQUIPMENT:**

Equipment and systems covered by this certificate are as follows:

### Description

The Ruggedized ExII telephone type ExResistTel is suitable for use in areas endangered by an explosive atmosphere. The vertical mounting is permitted.

The handset, the keyboard and the display are designed in type of protection intrinsic safety "i".

The electrical connection of the Ruggedized ExII telephone type ExResistTel is realised by terminals in type of protection increased safety "e".

The ambient temperature range is -25 °C up to +40 °C respectively +60 °C. Depending on the upper ambient temperature the temperature class and the surface temperature will change.

A breathing and draining device is part of the Ruggedized ExII telephone type ExResistTel.

CONDITIONS OF CERTIFICATION: NO



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Certificate No.:

IECEx BVS 11.0033

Date of Issue:

2011-05-26

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## **EQUIPMENT**(continued):

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Non intrinsically safe circuits

Maximum short circuit current IK

Phone line (Terminal La / Lb No.: 13 - 14)

Maximum voltage (calling) Um (calling) Permitted frequency range 16 up to 54 Maximum voltage (calling) Um (calling) AC 150 Permitted frequency range 15 up to 68 Hz Maximum rated voltage Um (supply voltage) DC 66 Maximum rated current mΑ Maximum rated voltage Um (supply voltage) DC 56.5 Maximum rated current 110 mΑ

Additional external alarm: only for connection to passive load (Terminal W1 / W No.: 15 - 16)

Um (calling) Maximum voltage (calling) AC 90 Permitted frequency range 16 up to 54 Ηz Maximum voltage (calling) Um (calling) AC 150 Permitted frequency range 15 up to 68 Maximum rated voltage Um (supply voltage) DC 66 Maximum rated voltage Um (supply voltage) DC 56.5



Certificate No.:

IECEx BVS 11.0033

Date of Issue:

2011-05-26

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## Additional information:

## Intrinsically safe circuits

Headset (Microphone) (Terminal KGM No.: 5 - 6)

Maximum output voltage	Uo	17	V
Maximum output current	lo	90	mA
Maximum output power	Po	80	mW
Maximum external capacitance	Co	375	nF
Maximum external inductance	Lo	1.2	mΗ

## Headset (Speaker) (Terminal KGH No.: 7 - 8)

Maximum output voltage	Uo	17	V
Maximum output current	lo	90	mΑ
Maximum output power	Po	190	mW
Maximum external capacitance	Co	375	nF
Maximum external inductance	Lo	1.2	mΗ

Headset (Signalling) (Terminal KG	S No.:	9 - 10)	
Maximum output voltage	Uo	17	V
Maximum output current	lo	8	mΑ
Maximum output power	Po	33	mW
Maximum external capacitance	Co	375	nF
Maximum external inductance	Lo	100	mH

External speaker (Terminal LSP No.: 11 - 12)					
Maximum output voltage	Uo	6.6	V		
Maximum output current	lo	250	mΑ		
Maximum output power	Po	370	mW		
Maximum external capacitance	Co	22	μF		
Maximum external inductance	Lo	0.3	mH		

## Ambient temperature range

Temperature class T6	-25 °C up to +40 °C
Temperature class T5	-25 °C up to +60 °C



## INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification Scheme for Explosive Atmospheres**

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:

IECEx BVS 11.0033

issue No.:1

Certificate history: Issue No. 1 (2013-4-9) Issue No. 0 (2011-5-26)

Status:

Current

Page 1 of 6

Date of Issue:

Applicant:

2013-04-09

FHF Funke + Huster Fernsig GmbH

Gewerbeallee 15-19 45478 Mülheim a. d. Ruhr

Germany

Electrical Apparatus: Optional accessory:

Ruggedized ExII telephone

Type of Protection:

Equipment protection by intrinsic safety "i", Equipment protection by encapsulation "m", Equipment dust ignition protection by enclosure 't', Equipment protection by

increased safety "e"

Marking:

Ex e mb [ib] IIC T6/T5 Gb

Ex tb [ib] IIIC T80°C/T100°C Db

Approved for issue on behalf of the IECEx

Certification Body:

Dr. F. Eickhoff

Position:

Deputy Head of Certification Body

Signature:

(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.

This certificate is not transferable and remains the property of the issuing body.
 The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

**DEKRA EXAM GmbH** Dinnendahlstrasse 9 44809 Bochum Germany





Certificate No.:

IECEx BVS 11.0033

Date of Issue:

2013-04-09

Issue No.: 1

Page 2 of 6

Manufacturer:

FHF Funke + Huster Fernsig GmbH

Gewerbeallee 15-19 45478 Mülheim a. d. Ruhr

Germany

Additional Manufacturing location

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

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

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 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: DE/BVS/ExTR11.0058/01

**Quality Assessment Report:** 

DE/BVS/QAR07.0004/06



Certificate No.:

IECEx BVS 11.0033

Date of Issue:

2013-04-09

Issue No.: 1

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#### Schedule

#### **EQUIPMENT:**

Equipment and systems covered by this certificate are as follows:

### Subject and type

Ruggedized ExII telephone type ExResistTel

#### Description

The Ruggedized ExII telephone type ExResistTel is suitable for use in areas endangered by an explosive atmosphere. The vertical mounting is permitted.

The handset, the keyboard and the display are designed in type of protection intrinsic safety "i".

The electrical connection of the Ruggedized ExII telephone type ExResistTel is realised by terminals in type of protection increased safety "e".

The ambient temperature range is -25  $^{\circ}$ C up to +40  $^{\circ}$ C respectively +60  $^{\circ}$ C. Depending on the upper ambient temperature the temperature class and the surface temperature will change.

A breathing and draining device is part of the Ruggedized ExII telephone type ExResistTel.

CONDITIONS OF CERTIFICATION: NO



Certificate No.:

IECEx BVS 11.0033

Date of Issue:

2013-04-09

Issue No.: 1

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## EQUIPMENT(continued):

## **Parameters**

4)			
U <sub>m</sub> (calling)	AC	90	V
	-1	16 up to 54	Hz
U <sub>m</sub> (calling)	AC	150	V
		15 up to 68	Hz
U <sub>m</sub> (supply voltage)	DC	66	V
		100	mA
			-11
U <sub>m</sub> (supply voltage)	DC	56.5	V
		110	mA
35	A		
ction to passive load (Ter	minal	W1 / W No.: 1	5 - 16)
U <sub>m</sub> (calling)	AC	90	
		16 up to 54	Hz
U <sub>m</sub> (calling)	AC	150	V
		15 up to 68	Hz
U <sub>m</sub> (supply voltage)	DC	66	
			·
U <sub>m</sub> (supply voltage)	DC	56.5	
	U <sub>m</sub> (calling)  U <sub>m</sub> (calling)  U <sub>m</sub> (supply voltage)  U <sub>m</sub> (supply voltage)  35  ction to passive load (Tell  U <sub>m</sub> (calling)  U <sub>m</sub> (calling)	U <sub>m</sub> (calling)  AC  U <sub>m</sub> (calling)  AC  U <sub>m</sub> (supply voltage)  DC  U <sub>m</sub> (supply voltage)  DC  35  A  Ction to passive load (Terminal  U <sub>m</sub> (calling)  AC  U <sub>m</sub> (calling)  AC	U <sub>m</sub> (calling)



Certificate No.:

IECEx BVS 11.0033

Date of Issue:

2013-04-09

Issue No.: 1

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

The reason for this supplement is the updating to the current standards.



Certificate No.:

IECEx BVS 11.0033

Date of Issue:

2013-04-09

Issue No.: 1

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## Additional information:

Intrinsically safe circuits			
	_		
Headset (Microphone) (Termina	I KG	M No.: 5 -	6)
Maximum output voltage	U <sub>o</sub>	17	V
Maximum output current	I <sub>o</sub>	90	mA
Maximum output power	Po	80	mW
Maximum external capacitance	]c <sub>o</sub>	375	nF
Maximum external inductance	L <sub>o</sub>	1.2	mH
Headset (Speaker) (Terminal Ko	H N	o.: 7 - 8)	
Maximum output voltage	ln°	17	\[\sigma\]
Maximum output current	1	110	mA
Maximum output power	-	190	mW
Maximum external capacitance	-	375	nF
Maximum external inductance	L <sub>o</sub>	1.2	mH
Headset (Signalling) (Terminal K	GS I	No.: 9 - 10	))
Maximum output voltage	Ιυ <sub>ο</sub>	17	V
Maximum output current	I <sub>o</sub>	8	mA
Maximum output power	Po	33	mW
Maximum external capacitance	Co	375	nF
Maximum external inductance	$L_{o}$	100	mH
	]		
External speaker (Terminal LSP		11 - 12)	
Maximum output voltage	U <sub>o</sub>	6.6	V
Maximum output current	l <sub>o</sub>	250	mA
Maximum output power	Po	370	mW
Maximum external capacitance	C。	22	μF
Maximum external inductance	L <sub>o</sub>	0.3	mH
Ambient temperature range			
Temperature class T6		-25 °C up	to +40 °C
Temperature class T5		-25 °C up	to +60 °C



## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:

**IECEx BVS 11.0033** 

issue No.:2

Certificate history:

Status:

Current

Issue No. 2 (2015-7-29) Issue No. 1 (2013-4-9) Issue No. 0 (2011-5-26)

Date of Issue:

2015-07-29

Page 1 of 6

Applicant:

FHF Funke + Huster Fernsig GmbH

Gewerbeallee 15-19 45478 Mülheim an der Ruhr

Germany

Electrical Apparatus: Optional accessory:

Ruggedized ExII telephone type ExResistTel

Type of Protection:

Equipment protection by intrinsic safety "i", Equipment protection by encapsulation

"m", Equipment dust ignition protection by enclosure "t", Equipment protection by

increased safety "e"

Marking:

Ex e mb [ib] IIC T6/T5 Gb

Ex tb [ib] IIIC T80°C/T100°C Db

See general product information for Details

Approved for issue on behalf of the IECEx

Certification Body:

H.-Ch. Simanski

Position:

Head of Certification Body

Signature:

(for printed version)

Date:

7. Ca. 200

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:

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany





Certificate No.:

IECEx BVS 11.0033

Date of Issue:

2015-07-29

Issue No.: 2

Page 2 of 6

Manufacturer:

FHF Funke + Huster Fernsig GmbH

Gewerbeallee 15-19 45478 Mülheim an der Ruhr

Germany

Additional Manufacturing location

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

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

IEC 60079-18: 2014

Explosive atmospheres - Part 18: Equipment protection by encapsulation "m"

Edition: 4.0

IEC 60079-31 : 2013

Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition: 2

IEC 60079-7: 2006-07

Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

Edition: 4

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:

DE/BVS/ExTR11.0058/02

Quality Assessment Report:

DE/BVS/QAR07.0004/08



Certificate No.:

IECEx BVS 11.0033

Date of Issue:

2015-07-29

Issue No.: 2

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### **Schedule**

#### **EQUIPMENT:**

Equipment and systems covered by this certificate are as follows:

## General product information:

Ruggedized ExII telephone type ExResistTel

### Description

The Ruggedized ExII telephone type ExResistTel is suitable for use in areas endangered by an explosive atmosphere. The vertical mounting is permitted.

The handset, the keyboard and the display are designed in type of protection intrinsic safety "i".

The electrical connection of the Ruggedized ExII telephone type ExResistTel is realised by terminals in type of protection increased safety "e".

The ambient temperature range is -25 °C up to +40 °C respectively +60 °C. Depending on the upper ambient temperature, the temperature class and the surface temperature will change.

A breathing and draining device is part of the Ruggedized ExII telephone type ExResistTel.

CONDITIONS OF	<b>CERTIFICATION: NO</b>
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Certificate No.:

IECEx BVS 11.0033

Date of Issue:

2015-07-29

Issue No.: 2

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## **EQUIPMENT**(continued):

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Non intrinsically safe circuits

Phone line (Terminal La / Lb No.: 13 - 1	4)			
Maximum voltage (calling)	U <sub>m</sub> (calling)	AC	90	V
Permitted frequency range or		16 up to	54	Hz
Maximum voltage (calling)	U <sub>m</sub> (calling)	AC	150	V
Permitted frequency range or		15 up to	68	Hz
Maximum rated voltage	U <sub>m</sub> (supply voltage)	DC	66	V
- Maximum rated current or			100	mΑ
Maximum rated voltage	U <sub>m</sub> (supply voltage)	DC	56.5	V
Maximum rated current			110	mΑ
Maximum short circuit current I <sub>K</sub>			35	Α
Additional external alarm: only for conne	ection to passiv load (Terr	minal W1 / W	/ No.: 15	- 16)
Maximum voltage (calling)	U <sub>m</sub> (calling)	AC	90	V
Permitted frequency range or		16 up to	54	Hz
Maximum voltage (calling)	U <sub>m</sub> (calling)	AC	150	V
Permitted frequency range or		15 up to	68	Hz
Maximum rated voltage or	U <sub>m</sub> (supply voltage)	DC	66	٧
Maximum rated voltage	U <sub>m</sub> (supply voltage)	DC	56.5	V



Certificate No.:

IECEx BVS 11.0033

Date of Issue:

2015-07-29

Issue No.: 2

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

Previous interface for interconnection of external loudspeaker waived. The device is mechanically and electrically unchanged.



Certificate No.:

IECEx BVS 11.0033

Date of Issue:

2015-07-29

Issue No.: 2

Page 6 of 6

### Additional information:

## Intrinsically safe circuits

Headset (Speaker) (Terminal KGH No.: 7 - 8)

Headset (Signaling) (Terminal KGS No.: 9 - 10)

### Ambient temperature range

Temperature class T6 -25 °C up to +40 °C Temperature class T5 -25 °C up to +60 °C



## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:

IECEx BVS 11.0033

Issue No: 3

Certificate history:

Status:

Current

Issue No. 3 (2018-10-01) Issue No. 2 (2015-07-29)

Date of Issue:

2018-10-01

Page 1 of 6

Issue No. 1 (2013-04-09) Issue No. 0 (2011-05-26)

Applicant:

FHF Funke + Huster Femsig GmbH

Gewerbeallee 15-19

45478 Mülheim an der Ruhr

Germany

Equipment:

Ruggedized ExII telephone type ExResistTel

Optional accessory:

Type of Protection:

Equipment protection by intrinsic safety "i", Equipment protection by encapsulation "m", Equipment dust ignition

protection by enclosure "t", Equipment protection by increased safety "e"

Marking:

Ex eb mb [ib] IIC T6/T5 Gb Ex tb [ib] IIIC T80°C/T100°C Db

Approved for issue on behalf of the IECEx

Certification Body:

Jörg Koch

Position:

Head of Certification Body

Signature:

(for printed version)

Date:

- 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:

**DEKRA EXAM GmbH** Dinnendahlstrasse 9 44809 Bochum Germany



On the safe side.



Certificate No: IECEx BVS 11.0033 Issue No: 3

Date of Issue: 2018-10-01 Page 2 of 6

Manufacturer: FHF Funke + Huster Fernsig GmbH

Gewerbeallee 15-19 45478 Mülheim an der Ruhr

Germany

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 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 : 2017 Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

IEC 60079-11: 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

Edition:6.0

IEC 60079-18: 2017 Explosive atmospheres - Part 18: Protection by encapsulation "m"

Edition:4.1

IEC 60079-31 : 2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

IEC 60079-7: 2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

Edition:5.1

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:

DE/BVS/ExTR11.0058/03

**Quality Assessment Report:** 

DE/BVS/QAR07.0004/11



## of Conformity

Certificate No:

IECEx BVS 11.0033

Issue No: 3

Date of Issue:

2018-10-01

Page 3 of 6

Schedule

#### **EQUIPMENT:**

Equipment and systems covered by this certificate are as follows:

### General product information

## Subject and Type

Ruggedized ExlI telephone type ExResistTel

### Description

The Ruggedized ExII telephone type ExResistTel is suitable for use in areas endangered by an explosive atmosphere. The vertical mounting is permitted.

The handset, the keyboard and the display are designed in type of protection Intrinsic Safety "i".

The electrical connection of the Ruggedized ExII telephone type ExResistTel is realised by terminals in type of protection increased safety "e".

The ambient temperature range is -25 °C up to +40 °C respectively +60 °C. Depending on the upper ambient temperature, the temperature class and the surface temperature will change.

A breathing and draining device is part of the Ruggedized ExII telephone type ExResistTel.

An interface for interconnection of external loudspeaker is no longer provided.

Cable glands made of metal can also be used as an option.

Optionally, the cabinet can be provided with an antistatic varnish, whereby the surface resistance R ≤ 10<sup>9</sup> Ohm is guaranteed.

Listing of all components used referring to older standards See Annex

SPECIFIC CONDITIONS OF USE: NO



Certificate No:

IECEx BVS 11.0033

Issue No: 3

Date of Issue:

2018-10-01

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	неп	1413

Parameters
Non-intrinsically safe circuits

Maximum rated voltage

Phone line (Terminal La / Lb No.: 13 - 14)

Phone line (Terminal La / Lb No	0.: 13 - 14)			
Maximum voltage (calling)	U (calling) m	AC	90	V
Permitted frequency range		16 up to	54	Hz
or				
Maximum voltage (calling)	U (calling) m	AC	150	٧
Permitted frequency range		15 up to	68	Hz
or				
Maximum rated voltage	U (supply voltage m	) DC	66	٧
Maximum rated current			100	mΑ
or				
Maximum rated voltage	U (supply voltage m	) DC	56.5	٧
Maximum rated current			110	mΑ
Maximum short circuit current I	<		35	Α
Additional external alarm: only f	or connection to pas	siv load (Termina	al W1 / W No.: 15 -	16)
Maximum voltage (calling)	U (calling) m	AC	90	٧
Permitted frequency range		16 up to	54	Hz
or				
Maximum voltage (calling)	U (calling) m	AC	150	٧
Permitted frequency range		15 up to	68	Hz
or				
Maximum rated voltage	U (supply voltage) m	DC	66	٧
or				

U (supply voltage) DC 56.5



Date of Issue:

# IECEx Certificate of Conformity

Issue No: 3

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Certificate No: IECEx BVS 11.0033

2018-10-01

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

Updating to the current version of standards.



Certificate No:

IECEx BVS 11.0033

Issue No: 3

Date of Issue:

2018-10-01

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## Additional information:

### Intrinsically safe circuits

Headset (Microphone) (Terminal KGM No.: 5 - 6)

Maximum output voltage	U	17	٧
Maximum output current	l 0	90	m/
Maximum output power	P 0	80	m۷
Maximum external capacita	nce C o	375	nF
Maximum external inductan	co I	1.2	1

## Headset (Speaker) (Terminal KGH No.: 7 - 8)

Maximum output voltage	U o	17	٧
Maximum output current	0	110	mΑ
Maximum output power	P 0	190	m۷
Maximum external capacitar	o o	375	nF
Maximum external inductano	e L	1.2	mΗ

## Headset (Signaling) (Terminal KGS No.: 9 - 10)

Maximum output voltage	U	17	٧
Maximum output current	0	8	mA
Maximum output power	P o	33	mW
Maximum external capacitar	nce C o	375	лF
Maximum external inductant	ce L	100	mH

## Ambient temperature range

Temperature class T6	-25 °C up to +40 °C	
Temperature class T5	-25 °C up to +60 °C	

#### Annex:

BVS\_11\_0033\_FHFFernsig\_Annex\_issue3.pdf