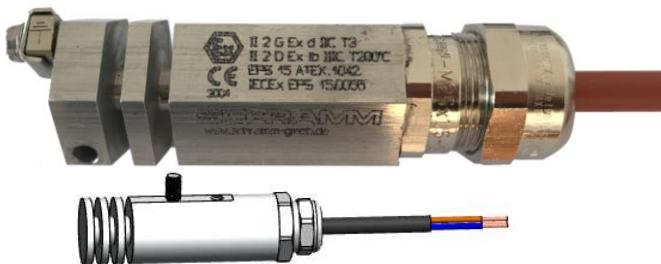


BA_W5-002.03_EN



• General

The electric temperature sensor TSW, TST is equipment and protective system intended for use in potentially explosive atmospheres.

The temperature sensor can be used in areas in which an explosive atmosphere occurs in operation occasionally (Zone 1). The mixture can either be consisting of air together with flammable substances in the form of gas/vapor or with a cloud of combustible dust (G/D).

EU-Type Examination Certific.: EPS 15 ATEX 1042
IECEx Certificate of Conformity: IECEx EPS 15.0056
EAC Ex Certificate: RU C-DE.EX01.B.00032/19

Marking:
 II 2 G Ex db IIC T4 / T3 Gb
 II 2 D Ex tb IIIC T135°C / T200°C Db

• Function

The electric temperature sensor TSW, TST is sensitive to the surrounding temperature. The signal is dependent on the built-in resistance or thermocouple (Type must be given at ordering time and is fixed during the manufacturing phase).

The construction of the enclosure prevents the sensor from exceeding the maximum allowable surface temperature defined by the specified temperature class.

The following types are available:

- O: Hexagonal aluminum enclosure with M25 cable gland
- A: Round aluminum enclosure with M20 cable gland
- S: Round stainless steel enclosure with M20 cable gland

Resistance Thermometer TSW:

- A: 1xPt100, 2-wire acc. to EN 60751 class B 1/3 DIN
- C: 1xPt100, 4-wire acc. to EN 60751 class B 1/3 DIN
- E: 2xPt100, 2-wire acc. to EN 60751 class B 1/3 DIN

Thermocouple Thermometer TST

- A: Type J, Fe-CuNi acc. to EN 60584-2 class 1
- C: Type K, NiCr-Ni acc. to EN 60584-2 class 1

Armoured cable, stainless steel cable glands, terminal box application or other options on request.

• Technical Data

Max. voltage:	30 VDC
Max. power:	3 W
Connection cable:	SIHF 3 or 5 x 1 or 2,5 mm ² , 3 m long
Weight:	0,6 kg
Ambient temp.:	T4: -60°C to +80°C, T3: -60°C to +140°C
Operating temp.:	T4: -60°C to +120°C, T3: -60°C to +180°C
Protection degree:	IP 68

For installation and operation it is essential to follow this Manual and the relevant national regulations in addition to generally accepted good engineering practice and the IEC 60079-14 „Electrical installation design, selection and erection“.

The specified rated data on the type plate of the temperature sensor plate must always be taken in account.

• Mounting

The hexagonal M25 enclosure of the electric temperature sensor TSW, TST has an M5 fastening screw with a distance spacer for attachment to a mounting plate or a cross assembly. The round M20 enclosure type is fixed by a clip.

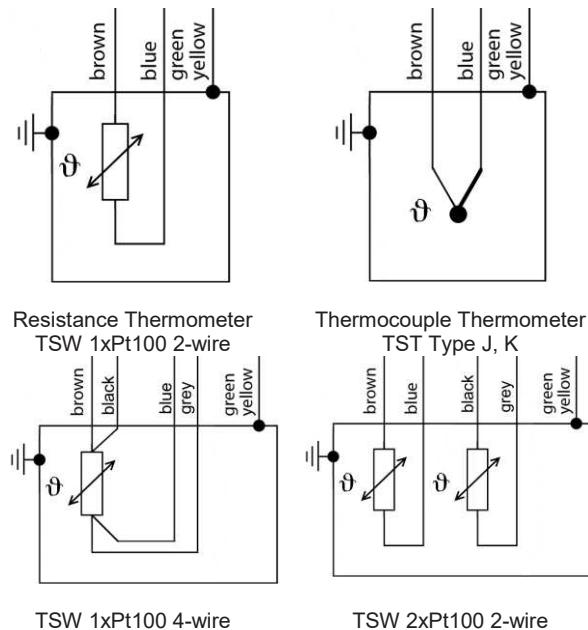
Attach the Temperature sensor in an area with a regulated temperature. Advisable are areas where free air flow is possible. With respect to cabinet dimensions we recommend a position close to the cabinet centre as temperature might slightly vary throughout the cabinet height.

During disassembly, turn off the power supply, remove the electrical connections and remove the mounting screws.

• Commissioning

The electric temperature sensor TSW, TST is delivered operable from the manufacture. The connecting cable of the TSW, TST is foreseen to be joined in a junction box according to wiring diagram. The junction box must comply with the requirements of an approved type of protection according to IEC 60079-0, if the connection is in a hazardous area.

The TSW, TST is intended for stationary installation, so the connection cable must be protected against mechanical damage. The equipotential bonding and earthing shall be ensured by connecting the TSW, TST to the entire system.



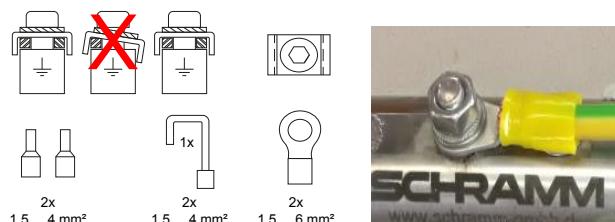
• Electrical Protection

Connection

Resistance thermometers TSW and thermocouples TST can operate with secondary devices (measurement instruments, temperature controllers or transmitters with the output signal 4...20 mA).

Potential equalization

At the metallic housing of the TSW, TST, is a protective conductor connection for connecting to the external potential equalization. The potential bonding conductor shall be connected as shown. When connecting two conductors, they must have the same size.



Hexagonal M25 enclosure

Round M20 enclosure

• Operating, Maintenance

Devices in hazardous area must be installed, supervised, maintained and kept in good conditions by the owner of the plant. For information, refer to IEC 60079-17. Only skilled workers are allowed to do maintenance and the elimination of disturbance work. Do not perform any independent repair of defective temperature sensor, but send it back to SCHRAMM. Unauthorized repairs and disassembly will automatically eliminate warranties and liabilities.



BUREAU
VERITAS



(1) EC-Type Examination Certificate

- (2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres – Directive 94/9/EC

- (3) EC Type Examination Certificate Number

EPS 15 ATEX 1 042

Revision 0

- (4) Equipment: Temperature switch type TS16

- (5) Manufacturer: Schramm GmbH

- (6) Address: Flinschstrasse 18a, 60388 Frankfurt am Main, Germany

- (7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

- (8) Bureau Veritas Consumer Products Services Germany GmbH, Notified Body No. 2004 in accordance with Article 9 of the Council Directive 94/9/EC of March 23rd 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II of the Directive. The examination and test results are recorded in the confidential report 15TH0292.

- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012

EN 60079-1:2014

EN 60079-31:2014

- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

- (11) This EC-Type Examination Certificate relates only to the design and the construction of the specified equipment in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.

- (12) The marking of the equipment shall include the following:



II 2G Ex d IIC T4/T3 Gb
II 2D Ex tb IIIC T135°C/T200°C Db



Nuremberg, 27.11.2015

Page 1 of 2

Certificates without signature are void. This certificate is allowed to be distributed only if not modified. Extracts or modifications must be authorized by Bureau Veritas Consumer Products Services Germany GmbH. EPS 15 ATEX 1 042, Revision 0.



BUREAU
VERITAS

(13)

Annex

(14) EC-Type Examination Certificate EPS 15 ATEX 1 042

Revision 0

(15) Description of equipment:

The electric temperature switch TS16 is used for switching an electrical device on or off and is sensitive to the surrounding temperature. The temperature switch point is dependent on the built-in bimetallic thermostat.

Ambient temperature range: -60°C to +80°C

Operating temperature range: -60°C to +180°C (120°C for T4)

Electrical data:

Un = 250 VAC

In = 16 A

(16) Test report: 15TH0292

(17) Special conditions for safe use:

none

(18) Essential health and safety requirements:

Met by standards.



Certification department of explosion protection

Nuremberg, 27.11.2015

Page 2 of 2

Certificates without signature are void. This certificate is allowed to be distributed only if not modified. Extracts or modifications must be authorized by Bureau Veritas Consumer Products Services Germany GmbH. EPS 15 ATEX 1 042, Revision 0.



(1)

EU - Type Examination Certificate

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres – Directive 2014/34/EU
(3) EU - Type Examination Certificate Number

EPS 15 ATEX 1 042

Revision 1

- (4) Equipment: Temperature switch type TS16, TS16K, Temperature sensor Type TSW, TST
(5) Manufacturer: Schramm GmbH
(6) Address: Flinschstrasse 18a, 60388 Frankfurt am Main, Germany
(7) This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documentation therein referred to.
(8) Bureau Veritas Consumer Products Services Germany GmbH, notified body No. 2004 in accordance with Article 21 given in the Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014, certifies that this equipment has been found to comply with the essential health and safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II of the Directive. The examination and test results are recorded in the confidential documentation under the reference number 15TH0292.
(9) Compliance with the essential health and safety requirements has been assured by compliance with:

EN 60079-0:2012+A11:2013

EN 60079-1:2014

EN 60079-31:2014

- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the annex to this certificate.
(11) This EU - Type Examination Certificate relates only to the design and examination of the specified equipment in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacture of this equipment and its placing on the market. Those requirements are not covered by this certificate.
(12) The marking of the equipment shall include the following:



II 2G Ex db IIC T4/T3 Gb

II 2D Ex tb IIIC T135°C/T200°C Db



Certification department of explosion protection

Nuremberg, 2018-06-28





(13)

Annex

(14) EU - Type Examination Certificate EPS 15 ATEX 1 042

Revision 1

(15) Description of equipment:

The electric temperature switch TS16 is used for switching an electrical device on or off and is sensitive to the surrounding temperature. The temperature switch point is dependent on the built-in bimetallic thermostat. The types TSW and TST can be used as temperature sensors with different sensor elements.

Ambient temperature range: -60°C to +140°C for Temperature class T3 (T200°C)

-60°C to +80°C for Temperature class T4 (T135°C)

Operating temperature range: -60°C to +180°C for Temperature class T3 (T200°C)

-60°C to +120°C for Temperature class T4 (T135°C)

Electrical data:

Temperature switch	Temperature sensor
U _n =250 VAC	U _{max} =30 VDC
I _n =16 A	P _{max} = 3W

(16) Reference number: 15TH0292

(17) Special conditions for safe use:

none

(18) Essential health and safety requirements:

Met by compliance with standards.



Certification department of explosion protection

Nuremberg, 2018-06-28

Certificates without signature and seal are void. This certificate is allowed to be distributed only if not modified. Extracts or modifications must be authorized by Bureau Veritas Consumer Products Services Germany GmbH. EPS 15 ATEX 1 042 , Revision 1.

Page 2 of 2



EU - Type Examination Certificate

- (1) Equipment and protective systems intended for use in potentially explosive atmospheres – Directive 2014/34/EU
(2) EU - Type Examination Certificate Number

EPS 15 ATEX 1 042

Revision 2

- (4) Equipment: Temperature switch type TS16, TS16K, temperature sensor type TSW, TST
(5) Manufacturer: Schramm GmbH
(6) Address: Flinschstr. 18a
60388 Frankfurt am Main
Germany
(7) This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documentation therein referred to.
(8) Bureau Veritas Consumer Products Services Germany GmbH, notified body No. 2004 in accordance with Article 21 given in the Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014, certifies that this equipment has been found to comply with the essential health and safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II of the Directive. The examination and test results are recorded in the confidential documentation under the reference number 15TH0292.
(9) Compliance with the essential health and safety requirements has been assured by compliance with:

EN IEC 60079-0:2018

EN 60079-1:2014

EN 60079-31:2014

- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the annex to this certificate.
(11) This EU - Type Examination Certificate relates only to the design and examination of the specified equipment in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacture of this equipment and its placing on the market. Those requirements are not covered by this certificate.
(12) The marking of the equipment shall include the following:

Ex II 2G Ex db IIC T4/T3 Gb
II 2D Ex tb IIIC T135°C/T200°C Db



Hamburg, 2019-11-07

Page 1 of 2

Certificates without signature and seal are void. This certificate is allowed to be distributed only if not modified. Extracts or modifications must be authorized by Bureau Veritas Consumer Products Services Germany GmbH. EPS 15 ATEX 1 042, Revision 2.



BUREAU
VERITAS



(13)

Annex

(14) EU - Type Examination Certificate EPS 15 ATEX 1 042

Revision 2

(15) Description of equipment:

The electric temperature switch TS16 is used for switching an electrical device on or off and is sensitive to the surrounding temperature. The temperature switch point is dependent on the built-in bimetallic thermostat. The types TSW and TST can be used as temperature sensors with different sensor elements.

Ambient temperature range: -60°C to +140°C for Temperature class T3 (T200°C)
-60°C to +80°C for Temperature class T4 (T135°C)

Operating temperature range: -60°C to +180°C for Temperature class T3 (T200°C)
-60°C to +120°C for Temperature class T4 (T135°C)

Electrical data:

Temperature switch	Temperature sensor
U _n = 250 VAC	U _{max} = 30 VDC
I _n = 16 A	P _{max} = 3W

(16) Reference number: 15TH0292

(17) Special conditions for safe use:

none

(18) Essential health and safety requirements:

Met by compliance with standards.



Certification department of explosion protection

Hamburg, 2019-11-07

Page 2 of 2

Certificates without signature and seal are void. This certificate is allowed to be distributed only if not modified. Extracts or modifications must be authorized by Bureau Veritas Consumer Products Services Germany GmbH. EPS 15 ATEX 1 042, Revision 2.



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 EPS 15.0056	Issue No: 0	Certificate history: Issue No. 0 (2015-11-27)
Status:	Current	Page 1 of 3	
Date of Issue:	2015-11-27		
Applicant:	Schramm GmbH Flinschstrasse 18a, 60388 Frankfurt am Main, Germany		
Electrical Apparatus:	Temperature switch type TS16		
<i>Optional accessory:</i>			
Type of Protection:	db, tb		
Marking:	Ex d IIC T4/T3 Gb Ex tb IIIC T135°C/T200°C Db		

Approved for issue on behalf of the IECEx
Certification Body:

Dieter Zitzmann

Position:

Certification manager

Signature:
(for printed version)

Date:

2015-11-27



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:

Bureau Veritas Consumer Products Services Germany GmbH
Businesspark A96
86842 Türkheim
Germany





IECEx Certificate of Conformity

Certificate No: IECEx EPS 15.0056

Issue No: 0

Date of Issue: 2015-11-27

Page 2 of 3

Manufacturer: Schramm GmbH
Flinschstrasse 18a,
60388 Frankfurt am Main,
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 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 60079-1 : 2014-06	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0	
IEC 60079-31 : 2013	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2	

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/EPS/ExTR15.0031/00](#)

Quality Assessment Report:

[DE/EPS/QAR14.0015/00](#)



IECEx Certificate of Conformity

Certificate No: IECEx EPS 15.0056

Issue No: 0

Date of Issue: 2015-11-27

Page 3 of 3

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The electric temperature switch TS16 is used for switching an electrical device on or off and is sensitive to the surrounding temperature. The temperature switch point is dependent on the built-in bimetallic thermostat.

Electrical ratings:

$U_n = 250$ VAC

$I_n = 16$ A

Ambient temperature range: -60°C to +80°C

operating temperature range: -60°C to +180°C (max 120°C for T4)

CONDITIONS OF CERTIFICATION: NO



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 EPS 15.0056

Issue No: 1

Certificate history:

[Issue No. 1 \(2018-06-20\)](#)

[Issue No. 0 \(2015-11-27\)](#)

Status: Current

Page 1 of 4

Date of Issue: 2018-06-20

Applicant: Schramm GmbH
Flinschstrasse 18a,
60388 Frankfurt am Main,
Germany

Equipment: Temperature switch type TS16, TS16K, Temperature sensor type TSW, TST

Optional accessory:

Type of Protection: db, tb

Marking:
Ex db IIC T4/T3 Gb

Ex tb IIIC T135°C/T200°C Db

*Approved for issue on behalf of the IECEx
Certification Body:*

Holger Schaffer

Certification Manager

2018-06-28



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 the [Official IECEx Website](#).

Certificate issued by:

Bureau Veritas Consumer Products Services Germany GmbH
Businesspark A96
86842 Türkheim
Germany





IECEx Certificate of Conformity

Certificate No: IECEx EPS 15.0056 Issue No: 1
Date of Issue: 2018-06-20 Page 2 of 4
Manufacturer: Schramm GmbH
Flinschstrasse 18a,
60388 Frankfurt am Main,
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 60079-1 : 2014-06	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0	
IEC 60079-31 : 2013	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2	

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/EPS/ExTR15.0031/00 DE/EPS/ExTR15.0031/01

Quality Assessment Report:

DE/EPS/QAR14.0015/00 DE/EPS/QAR14.0015/03



IECEx Certificate of Conformity

Certificate No: IECEEx EPS 15.0056

Issue No: 1

Date of Issue: 2018-06-20

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The electric temperature switch TS16 is used for switching an electrical device on or off and is sensitive to the surrounding temperature. The temperature switch point is dependent on the built-in bimetallic thermostat.

The types TSW and TST can be used as temperature sensors with different sensor elements.

Electrical ratings:

Temperature switch	Temperature sensor
Un=250 VAC	Umax=30 VDC
In=16 A	Pmax= 3W

Ambient temperature range:

-60°C to +140°C for Temperature class T3 (T200°C)

-60°C to +80°C for Temperature class T4 (T135°C)

Operating temperature range: -

-60°C to +180°C for Temperature class T3 (T200°C)

-60°C to +120°C for Temperature class T4 (T135°C)

SPECIFIC CONDITIONS OF USE: NO



IECEx Certificate of Conformity

Certificate No: IECEx EPS 15.0056

Issue No: 1

Date of Issue: 2018-06-20

Page 4 of 4

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

Addition of models

Update of standards



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 EPS 15.0056**

Page 1 of 4

Certificate history:

Issue 1 (2018-06-20)

Issue 0 (2015-11-27)

Status: **Current**

Issue No: 2

Date of Issue: **2019-11-07**

Applicant: **Schramm GmbH**
Flinschstrasse 18a
60388 Frankfurt am Main
Germany

Equipment: **Temperature switch type TS16, TS16K, Temperature sensor type TSW, TST**

Optional accessory:

Type of Protection: **db, tb**

Marking: **Ex db IIC T4/T3 Gb**

Ex tb IIIC T135°C/T200°C Db

Approved for issue on behalf of the IECEx
Certification Body:

Holger Schaffer

Certification Manager

2019-11-07



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:

Bureau Veritas Consumer Products Services Germany GmbH
Businesspark A96
86842 Türkheim
Germany





IECEx Certificate of Conformity

Certificate No.: **IECEx EPS 15.0056**

Page 2 of 4

Date of issue: **2019-11-07**

Issue No: 2

Manufacturer: **Schramm GmbH**
Flinschstrasse 18a
60388 Frankfurt am Main
Germany

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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

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:

[DE/EPS/ExTR15.0031/02](#)

Quality Assessment Report:

[DE/EPS/QAR14.0015/04](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx EPS 15.0056**

Page 3 of 4

Date of issue: **2019-11-07**

Issue No: **2**

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The electric temperature switch TS16 is used for switching an electrical device on or off and is sensitive to the surrounding temperature. The temperature switch point is dependent on the built-in bimetallic thermostat. The types TSW and TST can be used as temperature sensors with different sensor elements.

Electrical ratings:

Temperature switch	Temperature sensor
$U_n = 250$ VAC	$U_{max} = 30$ VDC
$I_n = 16$ A	$P_{max} = 3$ W

Ambient temperature range:

-60°C to +140°C for Temperature class T3 (T200°C)

-60°C to +80°C for Temperature class T4 (T135°C)

Operating temperature range:

-60°C to +180°C for Temperature class T3 (T200°C)

-60°C to +120°C for Temperature class T4 (T135°C)

SPECIFIC CONDITIONS OF USE: NO



IECEx Certificate of Conformity

Certificate No.: **IECEx EPS 15.0056**

Page 4 of 4

Date of issue: **2019-11-07**

Issue No: 2

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Addition of new housing materials, update of standards.

 **EU-Konformitätserklärung**
EU-Declaration of Conformity

Wir/We	Schramm GmbH Flinschstr. 18 a 60388 Frankfurt am Main Germany	
erklären in alleiniger Verantwortung, dass das Produkt bearing sole responsibility, hereby declare that the product	Temperaturschalter Typ TS16, TS16K	Temperatursensor Typ TSW, TST
	Temperature switch Type TS16, TS16K	Temperature sensor Type TSW, TST
auf das sich diese Erklärung bezieht, mit der/den folgenden Norm(en) oder normativen Dokument(en) übereinstimmt. Auch wenn die in der EU-Baumusterprüfung bescheinigung angewandten Normen nicht den neuesten Ausgaben der heute gültigen Normen entsprechen, erfüllt das Produkt die Grundlegenden Sicherheits- und Gesundheitsanforderungen der Richtlinie.		
which is the subject of this declaration, is in conformity with the following standards or normative documents. As well the named standards of the EU-Type-Examination Certificate are not the newest issue of the standard which is valid today, the equipment fulfils the Essential Health and Safety Requirements of the Directive		
Bestimmung der Richtlinie Provisions of the directive	Titel und/oder Nummer sowie Ausgabe der Norm(en) Titel and/or No. and class of issue of the standard(s)	
2014/34/EU: Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen 2014/34/EU: Equipment and protective systems intended for use potentially explosive atmospheres	EN IEC 60079-0:2018 EN 60079-1:2014 EN 60079-31:2014	
EU Baumusterprüfung: EU-Type-Examination Certificate:	EPS 15 ATEX 1042 Rev. 1 Bureau Veritas, 2004	
Kennzeichnung: Marking:	 II 2 G Ex db IIC T4/T3 Gb  II 2 D Ex tb IIIC T135°C/T200°C Db	
Qualitätssicherung Produktion: Production Quality Assessment:	Bureau Veritas, benannte Stelle 2004 Bureau Veritas, notified body 2004	
2014/30/EU: Elektromagnetische Verträglichkeit 2014/30/EU: Electromagnetic compatibility	EN 61000-6-4:2007 + A1:2011	
Frankfurt, 16. Juli 2021 Ort und Datum Place and Date	Dipl. Ing. Robin Schramm Qualitätsleitung Quality Management 