



# 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](http://www.iecex.com)

Certificate No.: **IECEx BVS 08.0018X**

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Certificate history:

Status: **Current**

Issue No: 4

Issue 3 (2014-02-18)

Issue 2 (2009-12-14)

Issue 1 (2008-09-02)

Issue 0 (2008-05-14)

Date of Issue: 2022-12-19

Applicant: **WIKA Alexander Wiegand SE & Co. KG**  
Alexander-Wiegand-Straße  
63911 Klingenberg/Main  
Germany

Equipment: **Transmitter type T32.\*\*.\*-\***

Optional accessory:

Type of Protection: **Intrinsic safety "i"**

Marking: Ex ia IIC T4/T5/T6 Ga T32.1\*.0IS-  
Ex ia IIIC T135°C Da

Ex ia [ia Ga] IIC T4/T5/T6 Gb T32.3\*.0IS-  
Ex ia [ia Da] IIIC T135°C Db

Ex ic IIC T4/T5/T6 Gc T32.\*\*.0IC-\*

Approved for issue on behalf of the IECEx  
Certification Body:

**Dr Franz Eickhoff**

Position:

**Senior Lead Auditor, Certification Manager and officially  
recognised expert**

Signature:  
(for printed version)



Date:  
(for printed version)

2022-12-19

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Certificate issued by:

**DEKRA Testing and Certification GmbH**  
Certification Body  
Dinnendahlstrasse 9  
44809 Bochum  
Germany

 **DEKRA**  
On the safe side.



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Manufacturer: **WIKA Alexander Wiegand SE & Co. KG**  
Alexander-Wiegand-Straße  
63911 Klingenberg/Main  
**Germany**

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 60079-11:2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

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/BVS/ExTR08.0021/04**

Quality Assessment Report:

**DE/BVS/QAR07.0010/18**



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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

### Type Code

See Annex

### Description

See Annex

### Ratings

See Annex

## SPECIFIC CONDITIONS OF USE: YES as shown below:

### Transmitter models T32.1\*.0IS-\* (head mount versions, ia)

#### For installation in areas with Ga- or Gb-requirements:

The transmitter shall be mounted inside a suitable enclosure providing as a minimum degree of protection IP20 according to IEC 60529.

#### For installation in the save area:

The transmitter shall be mounted inside a enclosure providing as a minimum degree of protection IP20 according to IEC 60529.

#### For installation in areas with Da- or Db-requirements:

Dependent on the application, the transmitter shall be mounted inside a enclosure, suitable for installation in EPL Da or EPL Db area, providing degree of protection IP6X according to IEC 60079-0, Ed. 7.

### Transmitter models T32.1\*.0IC-\* (head mount versions, ic)

The transmitter shall be mounted inside a suitable enclosure providing as a minimum degree of protection IP20 according to IEC 60529.

### Transmitter models T32.3\*.0IS-\* (DIN rail mount versions, ia)

#### For installation in areas with Gb-requirements:

The transmitter shall be installed in such a way that electrostatic charging is excluded.

#### For installation in areas with Db-requirements:

The transmitter shall be mounted inside a enclosure, suitable for installation in EPL Db area, providing degree of protection IP6X according to IEC 60079-0, Ed. 7.

### Transmitter models T32.3\*.0IC-\* (DIN rail mount versions, ic)

The transmitter shall be installed in such a way that electrostatic charging is excluded.



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

- Update of standard 60079-0
- Change of marking for dust-applications:  
T120°C was changed to T135°C
- The parameters were updated
- Update of the documentation

## Annex:

[BVS\\_08\\_0018X\\_WIKA\\_Annex\\_issue4.pdf](#)



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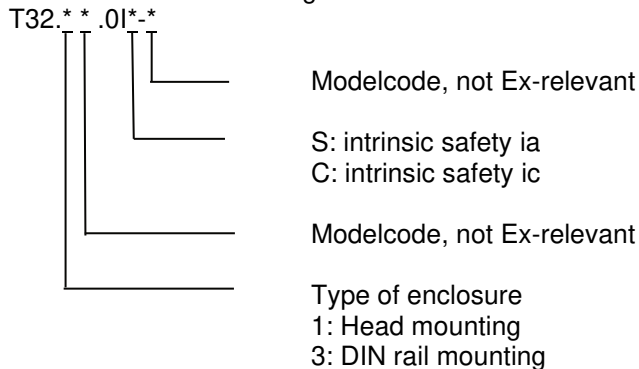


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## Type code

Transformer type T32.\*\*.0IS-\*

The asterisks are used to distinguish different variants:



## Description of the product

The transmitter, which converts a resistance or voltage value into an intrinsically safe 4-20 mA current loop, comes with two different mechanical versions:

Types T32.1\*.\*-\* for head mounting

Types T32.3\*.\*-\* for DIN rail mounting

The electrical parameters of both versions are identical.

A prerequisite for mounting the head version T32.1\*.0IS-\* is a suitable enclosure or connection head in areas which require EPL Ga, Gb or Da, Db.

For installations in dust-explosive areas (EPL Da or Db), the transmitter has to be installed into an external enclosure providing degree of protection IP6X.

A prerequisite for mounting the head version T32.1\*.0IC-\* is a suitable enclosure or connection head in areas which require EPL Gc.

The PCBs of all head mount version transmitters are potted inside a plastic enclosure.

The connection terminals for the intrinsically safe supply- and signal circuit and for the sensor circuit are placed at the top of the enclosure.

The DIN rail mount version T32.3\*.0IS-\* has a plastic enclosure for installation on a DIN rail.

For installations in dust-explosive areas (EPL Db), the transmitter has to be installed into an external enclosure providing degree of protection IP6X.

The DIN rail mount version T32.3\*.0IC-\* is intended for installation on a DIN rail in areas requiring EPL Gc.

For all DIN rail mount versions T32.3\*.\*-\*, the PCBs are placed inside a plastic enclosure and partly encapsulated.

The intrinsically safe sensor circuit (2-wire, 3-wire or 4-wire configuration optionally) of both versions is intended to supply sensor devices in zone 0 or zone 20.

## Listing of all components used referring to older standards

No components included



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## Parameters

- 1 Supply and Signal circuit (4 - 20 mA Current loop)  
Connection terminals + / -

Maximum input voltage	$U_i$	DC	30	V
Maximum input current	$I_i$		130	mA
Maximum input power	$P_i$			
for applications Group II			800	mW
for applications Group III			750/650/550	mW <sup>1)</sup>
Effective internal capacitance	$C_i$		7.8	nF
Effective internal inductance	$L_i$		negligible	

<sup>1)</sup> The permissible input power depends on the ambient temperature, see below.

- 2 Sensor circuit  
Connection terminals 1-4

Maximum output voltage	$U_o$	DC	6.5	V
Maximum output current	$I_o$		9.3	mA
Maximum output power	$P_o$		15.2	mW
Effective internal capacitance	$C_i$		208	nF
Effective internal inductance	$L_i$		negligible	
Linear output characteristics				
Maximum external capacitance	$C_o$			
Maximum external inductance	$L_o$			
Maximum inductance/resistance ratio	$L_o/R_o$			

in accordance with the following tables:

For types T32.**.0IS-*			
	IIC	IIB, IIIC	IIA
$C_o$	24 $\mu$ F	570 $\mu$ F	1000 $\mu$ F
$L_o$	365 mH	1644 mH	3288 mH
$L_o/R_o$	1.44 mH/ $\Omega$	5.75 mH/ $\Omega$	11.5 mH/ $\Omega$

For types T32.**.0IC-*			
	IIC	IIB, IIIC	IIA
$C_o$	325 $\mu$ F	570 $\mu$ F	1000 $\mu$ F
$L_o$	821 mH	3699 mH	7399 mH
$L_o/R_o$	3.23 mH/ $\Omega$	12.9 mH/ $\Omega$	25.8 mH/ $\Omega$

## Remarks:

$U_o$ : maximum voltage of any wire versus the other three wires

$I_o$ : maximum current of three wires in parallel versus the fourth wire or any other combination

$P_o$ : maximum power of three wires in parallel versus the fourth wire of any other combination

The values given for  $C_o$  respect  $C_i$ .

The intrinsically safe supply and signal circuit and the intrinsically safe sensor circuit shall be considered as being galvanically connected to each other.



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4.3 Ambient temperature range

Application	Ambient temperature range	Temperature class	Power $P_i$
Group II	$-50\text{ °C} \leq T_a \leq +85\text{ °C}$	T4	800 mW
	$-50\text{ °C} \leq T_a \leq +75\text{ °C}$	T5	800 mW
	$-50\text{ °C} \leq T_a \leq +60\text{ °C}$	T6	800 mW
Group III	$-50\text{ °C} \leq T_a \leq +40\text{ °C}$	N / A	750 mW
	$-50\text{ °C} \leq T_a \leq +70\text{ °C}$	N / A	650 mW
	$-50\text{ °C} \leq T_a \leq +85\text{ °C}$	N / A	550 mW
N / A = not applicable			