

Translation

EU-Type Examination Certificate

Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014

EU-Type Examination Certificate Number: **BVS 08 ATEX E 019 X** Issue: **01**

Equipment: **Transmitter type T32.**.0IS-***

Manufacturer: **WIK A Alexander Wiegand SE & Co. KG**

Address: **Alexander-Wiegand-Straße 30, 63911 Klingenberg, Germany**

This product and any acceptable variations thereto are specified in the appendix to this certificate and the documents referred to therein.

DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential Report No. BVS PP 08.2064 EU/N3. This issue of the EU-Type Examination Certificate replaces the previous issue of the EC-Type Examination Certificate BVS 08 ATEX E 019 X including supplements 1 to 2.

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018
EN 60079-11:2012

General requirements
Intrinsic Safety "i"

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed under item 17 of this certificate.

This EU-Type Examination Certificate relates only to the technical design of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:

	II 1G Ex ia IIC T4/T5/T6 Ga	for types T32.1*.0IS-*
	II 1D Ex ia IIC T135°C Da	(Head mount)
	II 2(1)G Ex ia [ia Ga] IIC T4/T5/T6 Gb	for types T32.3*.0IS-*
	II 2(1)D Ex ia [ia Da] IIC T135°C Db	(DIN rail mount)

DEKRA Testing and Certification GmbH
Bochum, 2022-12-15

Signed: Dr. Rolf Krökel

Managing Director

13 Appendix

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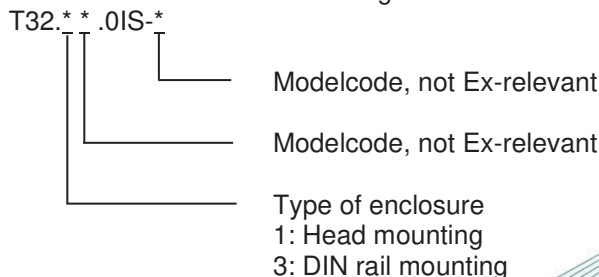
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15 Product description

15.1 Subject and type

Transformer type T32.**.0IS-*

The asterisks are used to distinguish different variants:



15.2 Description

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*.0IS-* for head mounting

Types T32.3*.0IS-* for DIN rail mounting

The electrical parameters of both versions are identical.

The head mount version T32.1*.0IS-* is designated for installation inside a suitable housing or connection head in areas requiring EPL Ga, Gb or Da, Db.

The PCBs 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.

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.

Reason for this issue

- Change to Directive 2014/34/EU
- 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

The equipment is technically unchanged.

Standard 60079-26 can be omitted because the transmitters do not contain a separation wall. EPL Ga is obtained by type of protection ia.

Listing of all components used referring to older standards

No components included

15.3 Parameters

15.3.1 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 ¹⁾
Effective internal capacitance	C_i		7.8	nF
Effective internal inductance	L_i		negligible	

¹⁾ The permissible input power depends on the ambient temperature, see below.

15.3.2 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 table:				

	IIC	IIB, IIIC	IIA
C_o	24 μ F	570 μ F	1000 μ F
L_o	365 mH	1644 mH	3288 mH
L_o/R_o	1.44 mH/ Ω	5.75 mH/ Ω	11.5 mH/ Ω

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.

15.3 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			

16 Report Number

BVS PP 08.2064 EU, as of 2022-12-15

17 Specific Conditions of Use

17.1 Transmitter type T32.1*.0IS-* (head mount)

For installation in areas with 1G- or 2G-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 areas with 1D- or 2D-requirements:

Dependent on the application, the transmitter shall be mounted inside an enclosure, suitable for installation in EPL Da or EPL Db area, providing degree of protection IP6X according to EN IEC 60079-0:2018.

For installation in the same area:

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

17.2 Transmitter type T32.3*.0IS-* (DIN rail mount)

For installation in areas with 2G-requirements:

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

For installation in areas with 2D-requirements:

The transmitter shall be mounted inside an enclosure, suitable for installation in EPL Db area, providing degree of protection IP6X according to EN IEC 60079-0:2018.

18 **Essential Health and Safety Requirements**

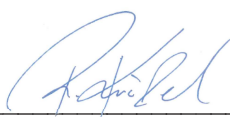
Met by compliance with the requirements mentioned in item 9.

19 **Remarks and additional information**

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, 2022-12-15
BVS-Su/MGR A 20220826 / 342823400



Managing Director