

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 16 ATEX E 112 X** Issue: **01**

Equipment: **Field Indicator and Field Transmitter types DIH5*-I/TIF5*-I/TIF11-I/T**.E**

Manufacturer: **WIKA 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 16.2196 EU / N1. This issue of the EU-Type Examination Certificate replaces the previous issue of the EU-Type Examination Certificate BVS 16 ATEX E 112 X.

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

EN IEC 60079-0:2018
EN IEC 60079-11:2024

General requirements
Intrinsic Safety "i"

Where additional criteria beyond those given here have been used, they are listed at item 18 in the Schedule.

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 with 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 (marking is provided in the Schedule as a part of item 15):



see item 15

DEKRA Testing and Certification GmbH
Bochum, 2026-01-19

Signed: Oliver Brumm

Managing Director

13 Appendix

14 EU-Type Examination Certificate

BVS 16 ATEX E 112 X issue 01

15 Product description

15.1 Subject and type

Field indicator types DIH5*-I and field transmitter types TIF**-I and T**.E

The devices are build in the following variants:

Field indicator type DIH50-I consisting of enclosure type 5/6000 or SAEEX-**-*(PI-Housing) with display module type DIH50-B and adapter assembly type DIH50-NT

Field indicator type DIH52-I consisting of enclosure type 5/6000 or SAEEX-**-*(PI-Housing) with display module type DIH52-B and adapter assembly type DIH52-NT

Field transmitter type TIF50-I consisting of enclosure type 5/6000 or SAEEX-**-*(PI-Housing) with one separately certified WIKA intrinsically safe transmitter T38, T15 or T16 and display module type DIH50-B and adapter assembly type DIH50-NT

Field transmitter type TIF52-I consisting of enclosure type 5/6000 or SAEEX-**-*(PI-Housing) with one separately certified WIKA intrinsically safe transmitter T38, T15 or T16 and display module type DIH52-B and adapter assembly type DIH52-NT

Field transmitter type T**.E consisting of separately certified enclosure with one separately certified WIKA intrinsically safe transmitter T38, T15 or T16 and optional display module type DIH5x-B with adapter assembly type DIH5x-NT or TND-display

Field transmitter type TIF11-I consisting of separately certified enclosure without display and with one separately certified WIKA intrinsically safe transmitter T38, T15 or T16

15.2 Description

Field Indicator type DIH5*-I for 4 - 20 mA current loops

The Field Indicator type DIH5*-I comprises of a display module type DIH5*-B and an adapter assembly type DIH5*-NT, mounted in an metal enclosure type 5/6000 or type PI-H.

The connection of the field indicator to an external intrinsically safe 2-wire 4...20 mA supply- and signal circuit is made via terminals on the adapter module.

The field indicator is suitable for use in areas requiring EPL Gb or Db.

Field Transmitter type TIF5*-I

The Field Transmitter type TIF5*-I comprises of a separately certified WIKA intrinsically safe transmitter T38, T15 or T16, a display module type DIH5*-B and an adapter module type DIH5*-NT, mounted in an metal enclosure type 5/6000 or SAEEX-*-(PI-Housing).

The connection of the field transmitter to the external intrinsically safe 2-wire 4...20 mA supply- and signal circuit is made via terminals on the adapter module.

The connection of the sensor circuit is made with the terminals of the transmitter module.

Field Transmitter type T**..E

The Field Transmitter type T**..E comprises of a separately certified WIKA intrinsically safe transmitter T38, T15 or T16. The connection of the field transmitter to the external intrinsically safe 2-wire 4...20 mA supply- and signal circuit is made via terminals on the adapter module. The connection of the sensor circuit is made with the terminals of the transmitter module.

Models without display are built in different certified enclosures.

Models with display uses a display module type DIH5*-B with an adapter module type DIH5*-NT or a TND-display and they are mounted in a metal enclosure type 5/6000 or SAEEX-*-(PI-Housing). The field transmitter are suitable for use in areas requiring EPL Gb or Db.

Field Transmitter type TIF11-I

The Field Transmitter type TIF11-I comprises of a separately certified WIKA intrinsically safe transmitter T38, T15 or T16 which is mounted in an enclosure which is separately certified.

The connection to external intrinsically safe 2-wire 4...20 mA supply- and signal circuit and sensor circuit is made with the terminals of the transmitter module.

The field transmitter has no display.

Display-module type DIH5*-B

The display-module provides a round size PCB fitted on the rear side with electronic components, and LCD-display and switches on the front side.

The PCB is mounted in a plastic enclosure providing a display window and push buttons above the switches on the front side. The open rear side of the enclosure is filled with casting compound covering the electronic components on the PCB.

The display modules are identical except for non-Ex relevant details of function.

Temperature Numeric Display (TND)

The temperature numeric display TND is an optional component of the Wika transmitter T38. It may be in the scope of delivery of the transmitter or delivered separately for an installation by the customer.

Adaptor-assembly type DIH5*-NT

The adaptor-Assembly type DIH5*-NT provides mechanical support for the display assembly and consists of a printed circuit board (ring size or ring segment size) providing connectors for display assembly, external transmitter and terminals for the IS two wire 4 - 20 mA supply- and signal circuit and wiring between the connectors and the terminals.

Marking:

The Ex-marking depends on the variant:

Type	Marking
DIH5*-I	Ex ia IIC T4/T5/T6 Gb Ex ia IIIC T135°C Db Ex ib IIIC T135°C Db
TIF5x-I, T**.E	Ex ia IIC T4/T5/T6 Gb Ex ia [ia Ga] IIC T4/T5/T6 Gb Ex ia IIIC T135°C Db Ex ib IIIC T135°C Db Ex ia [ia Da] IIIC T135°C Db
TIF11-I	Ex ia IIC T4/T5/T6 Gb Ex ib IIC T4/T5/T6 Gb Ex ia [ia Ga] IIC T4/T5/T6 Gb Ex ia IIIC T135°C Db Ex ib IIIC T135°C Db Ex ia [ia Da] IIIC T135°C Db

Reason for this issue

Update of standard 60079-0 and 60079-11

change in labelling

Quality Assessment report for Manufacturing location in Alberta was changed

model T**.E is added

Circuit changes in the DIH-5X model

List of all components used with older standards

subject	type	certification number	normative standards
Transmitter WIKA	Transmitter series T38.*.**** (head version incl. TND)	BVS 23 ATEX E 017 X	EN IEC 60079-0:2018 EN 60079-11:2012
Transmitter WIKA	T15, T16	BVS 19 ATEX E 020 X	EN IEC 60079-0:2018 EN 60079-11:2012
Empty enclosure (alu) ROSE Systemtechnik	Type 25.*****	PTB 98 ATEX 3101 U	EN 60079-0:2012+A11:2013 EN 60079-7:2015 EN 60079-31:2014
Empty enclosure (plastic) ROSE Systemtechnik	Type 26.*****	PTB 01 ATEX 1061 U	EN 60079-0:2012+A11:2013 EN 60079-7:2015 EN 60079-31:2014
Empty enclosure (SS) ROSE Systemtechnik	Type 34.*****	PTB 00 ATEX 1101 U	EN 60079-0:2018 EN 60079-7:2015/A1:2017 IEC 60079-31:2022
Empty enclosure WIKA	5/6000	TÜV 18 ATEX 211394 U	EN IEC 60079-0:2018 EN 60079-1:2014 EN 60079-31:2014 EN IEC 60079-7:2015+A1:2018
Empty enclosure WIKA	SA*EX (PI- Housing)	BVS 23 ATEX E 031 U	EN IEC 60079-0:2018 EN 60079-1:2014 EN 60079-31:2014 EN IEC 60079-7:2015+A1:2018

Note:

Standards 60079-1, -31 and -7 not relevant for the field indicator and field transmitter, as they use only intrinsic safety. Relevant property of the empty enclosure: degree of protection at least IP54 in accordance with EN IEC 60079-0:2018.

15.3 Parameters

15.3.1 Field Indicators types DIH5*-I

2-wire supply and signal circuit

Terminals + and -

Maximum input voltage	U_i	DC	29	V
Maximum input current	I_i		100	mA
Maximum input power	P_i		680	mW
Maximum internal capacity	C_i		13.2	nF
Maximum internal inductivity	L_i		1.2	μ H

Output circuit

2-pin connector / 2-wire connection cable

Maximum output voltage (only short time; caused by inductance voltage of internal coil)	U_o	DC	29.8	V
Maximum output current	I_o		109.2	mA
Maximum output power	P_o		680	mW

Max. external capacitance C_o according to the power supply connected to the input circuit reduced by 13.2 nF.

Max. external inductance L_o according to the power supply connected to the input circuit reduced by 1.2 μ H.

Ambient temperature ranges

Gas applications	for T4	$-40\text{ }^{\circ}\text{C} \leq T_a \leq +85\text{ }^{\circ}\text{C}$ (or $-50\text{ }^{\circ}\text{C} \leq T_a \leq +85\text{ }^{\circ}\text{C}$)
	for T5	$-40\text{ }^{\circ}\text{C} \leq T_a \leq +70\text{ }^{\circ}\text{C}$ (or $-50\text{ }^{\circ}\text{C} \leq T_a \leq +70\text{ }^{\circ}\text{C}$)
	for T6	$-40\text{ }^{\circ}\text{C} \leq T_a \leq +55\text{ }^{\circ}\text{C}$ (or $-50\text{ }^{\circ}\text{C} \leq T_a \leq +55\text{ }^{\circ}\text{C}$)
Dust applications	for $P_i = 680\text{ mW}$	$-40\text{ }^{\circ}\text{C} \leq T_a \leq +40\text{ }^{\circ}\text{C}$ (or $-50\text{ }^{\circ}\text{C} \leq T_a \leq +40\text{ }^{\circ}\text{C}$)
	for $P_i = 650\text{ mW}$	$-40\text{ }^{\circ}\text{C} \leq T_a \leq +70\text{ }^{\circ}\text{C}$ (or $-50\text{ }^{\circ}\text{C} \leq T_a \leq +70\text{ }^{\circ}\text{C}$)

The values in brackets are valid for special low temperature versions

Field Transmitter types TIF5*-I, TIF11-I and T.E**2-wire 4...20 mA supply- and signal circuit

Terminals + and -

Maximum input voltage	U_i	DC	29	V
Maximum input current	I_i		100	mA
Maximum input power	P_i		680	mW

The max. internal capacity is $C_i = 13.2 \text{ nF}$ plus the value of the build-in certified transmitter module.

The max. internal inductivity is $L_i = 1.2 \text{ }\mu\text{H}$ plus the value of the build- in certified transmitter module. See also parameters in the operating instructions (WIKA).

Sensor circuit

Connection at the connection facilities of the build-in transmitter modules T38, T15 or T16.

The output parameters of the separately certified build-in WIKA transmitter modules are listed in BVS 23 ATEX E 017 X und BVS 19 ATEX E 020 X. See also parameters in the operating instructions (WIKA).

Ambient temperature ranges

Gas applications	for T4	$-40^\circ\text{C} \leq T_a \leq +85^\circ\text{C}$
		(or $-50^\circ\text{C} \leq T_a \leq +85^\circ\text{C}$)
	for T5	$-40^\circ\text{C} \leq T_a \leq +70^\circ\text{C}$
		(or $-50^\circ\text{C} \leq T_a \leq +70^\circ\text{C}$)
	for T6	$-40^\circ\text{C} \leq T_a \leq +50^\circ\text{C}$
		(or $-50^\circ\text{C} \leq T_a \leq +50^\circ\text{C}$)
Dust applications	for $P_i = 680 \text{ mW}$	$-40^\circ\text{C} \leq T_a \leq +40^\circ\text{C}$
		(or $-50^\circ\text{C} \leq T_a \leq +40^\circ\text{C}$)
	for $P_i = 650 \text{ mW}$	$-40^\circ\text{C} \leq T_a \leq +70^\circ\text{C}$
		(or $-50^\circ\text{C} \leq T_a \leq +70^\circ\text{C}$)

The values in brackets are valid for special low temperature versions

Report Number

BVS PP 16.2196 EU / N1, as of 2026-01-19

17 Specific Conditions of Use

17.1 Field Indicator types DIH5*-I and Field Transmitter types TIF5*-I / TIF11-I/T**.E:

Installation in areas requiring EPL Gb equipment:

Electronic assemblies of Field Indicator types DIH5*-I and Field Transmitter types TIF5*-I / TIF11-I and T**.E shall be mounted in an enclosure, suitable for installation in EPL Gb area respectively, the enclosure shall provide as a minimum degree of protection IP20 according to EN 60529. Electrostatic charge effects should be excluded.

During the installation internal wiring, clearances, creepage distances and separations have to be considered according to EN 60079-11.

Installation in areas requiring EPL Db equipment:

Electronic assemblies of Field Indicator types DIH5*-I and the Field Transmitter types TIF5*-I / TIF11-I and T**.E shall be mounted inside an enclosure, suitable for installation in EPL Db area, providing a minimum degree of protection IP5x (Group IIIB application) IP6x (Group IIIC application) according to EN IEC 60079-0:2018.

During the installation internal wiring, clearances, creepage distances and separations have to be considered according to EN 60079-11.

17.2 Field Transmitter types TIF11-I and T**.E:

All special conditions for safe use of the build in WIKA transmitters which are not covered by this certification must be stated within the manufacturer's instructions by WIKA.

18 Essential Health and Safety Requirements

Met by compliance with the requirements mentioned in item 9.

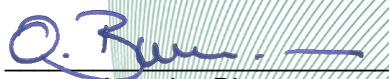
The standard EN IEC 60079-11:2024 is for this equipment safety-related equivalent to the harmonized standard EN 60079-11:2012.

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, 2026-19-01
BVS-AIh/HWa A 20221009 / 3428961


Managing Director