



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

Certificate No.: IECEx TUN 18.0005X

Issue No: 0

Certificate history:

Issue No. 0 (2018-06-01)

Status: Current

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Date of Issue: 2018-06-01

Applicant: WIKA Alexander Wiegand SE & Co. KG  
Alexander-Wiegand-Straße 30  
63911 Klingenberg  
Germany

Equipment: Process transmitter type IPT-2\*-T/2/4\*-\*\*\*\*\*-A/H/S/P/F/R/T/U\*-\*\*\*\*\*-\*\*\*S\*Z\*\*-\* and  
type CPT-2\*-T/2/4\*-\*\*\*\*\*-A/H/S/P/F/R/T/U\*-\*\*\*\*\*-\*\*\*\*\*-\*\*\*-\*

Optional accessory:

Type of Protection: Intrinsic safety „i“, Protection by enclosure „t“

Marking:

Ex ia ta, ia/tb, ia/tc, ia tb IIIC TX °C Da, Da/Db, Da/Dc, Db

Ex ia/ia/-, ia/tb ia IIIC TX°C Da/Db/-, Da/Db

Approved for issue on behalf of the IECEx  
Certification Body:

Christian Roder

Position:

Head of IECEx Certification Body

Signature:  
(for printed version)

Date:

  
2018-06-01

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

Certificate issued by:

TÜV NORD CERT GmbH  
Hanover Office  
Am TÜV 1, 30519 Hannover  
Germany





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Manufacturer: **WIKA Alexander Wiegand SE & Co. KG**  
Alexander-Wiegand-Straße 30  
63911 Klingenberg  
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:

<b>IEC 60079-0 : 2011</b> Edition:6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-11 : 2011</b> Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 60079-31 : 2013</b> Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*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/TUN/ExTR18.0015/00](#)

Quality Assessment Report:

[DE/BVS/QAR07.0010/12](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

### General product information:

#### Subject and Type:

Process transmitter type IPT-2\*-T/2/4\*-\*\*\*\*\*-A/H/S/P/F/R/T/U\*-\*\*\*\*\*-S\*Z\*\*\_\*\*\*\_\*\* resp.

CPT-2\*-T/2/4\*-\*\*\*\*\*-A/H/S/P/F/R/T/U\*-\*\*\*\*\*-\*\*\*\*\*\_\*\*\*\_\*\*

### Description:

The process transmitters type IPT-2\*-T/2/4\*-\*\*\*\*\*-A/H/S/P/F/R/T/U\*-\*\*\*\*\*-S\*Z\*\*\_\*\*\*\_\*\* and

CPT-2\*-T/2/4\*-\*\*\*\*\*-A/H/S/P/F/R/T/U\*-\*\*\*\*\*-\*\*\*\*\*\_\*\*\*\_\*\* are used for pressure and filling level measurement in explosion hazardous areas.

A display and adjustment module AB-MODUL.WIKA can be installed within the equipment with following options:

X without

A installed

F without, cover with display window

B installed on the side

K installed, with Bluetooth, magnetic pen operation

U installed, with Bluetooth, battery, magnetic pen operation

L installed on the side, with Bluetooth, magnetic pen operation

S installed on the side, with Bluetooth, battery, magnetic pen operation

### Parameters:

See Attachment to IECEx TUN 18.0005\_issue 00

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

1. For EPL Da resp. EPL Db applications, at the metallic parts of the pressure transmitters made of light metal there is a danger of ignition by impact or friction.
2. For EPL Da resp. EPL Db applications and at risks by pendulum or vibration the respective parts of the pressure transmitter have to be secured effectively against these dangers.
3. For the execution with separate housing of the pressure transmitters, potential equalization has to exist in the complete course of the erection of the connecting cable between the electronics housing and the measuring sensor housing.



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4. For EPL Da resp. EPL Db applications, the cable entries and blanking elements in the housing have to be suitably certified for an operating temperature area of -40 °C to 80 °C or the cable entries and blanking elements of the manufacturer have to be used.
5. The pressure transmitters with built in electronics "4 wire with installed barrier MODBUS" must not be used for EPL Da applications. Observe manual of the manufacturer.

**Annex:**

[Attachment IECEx TUN 18.0005\\_Issue 00.pdf](#)

## General product information:

### Subject and Type:

Process transmitter type IPT-2\*-T/2/4\*-\*\*\*\*-A/H/S/P/F/R/T/U\*-\*\*\*\*\*-\*\*\*S\*Z\*\*-\*\*\*-\*\* resp.  
CPT-2\*-T/2/4\*-\*\*\*\*-A/H/S/P/F/R/T/U\*-\*\*\*\*\*-\*\*\*\*\*-\*\*\*-\*\*

### Description:

The process transmitters type IPT-2\*-T/2/4\*-\*\*\*\*-A/H/S/P/F/R/T/U\*-\*\*\*\*\*-\*\*\*S\*Z\*\*-\*\*\*-\*\* and CPT-2\*-T/2/4\*-\*\*\*\*-A/H/S/P/F/R/T/U\*-\*\*\*\*\*-\*\*\*\*\*-\*\*\*-\*\* are used for pressure and filling level measurement in explosion hazardous areas.

A display and adjustment module AB-MODUL.WIKA can be installed within the equipment with following options:

- X without
- A installed
- F without, cover with display window
- B installed on the side
- K installed, with Bluetooth, magnetic pen operation
- U installed, with Bluetooth, battery, magnetic pen operation
- L installed on the side, with Bluetooth, magnetic pen operation
- S installed on the side, with Bluetooth, battery, magnetic pen operation

### Parameters:

#### Electrical data:

#### Electrical data of the supply circuits

##### IPT-2\*-T/2/4\*, CPT-2\*-T/2/4\*

Power supply and signal circuit:	$U_n = 9.6 \dots 30 \text{ V DC}$
(terminals 1[+], 2[-] in electronics compartment; with double chamber housing version in connection compartment)	$I_n = 4 \dots 22 \text{ mA}$

##### IPT-2\* or CPT-2\*-T/2/4\*-\*\*\*\*B-H/S\*-\*\*\*\*\*-\*\*\*\*\*-\*\*\*-\*\*, version with supplementary electronics B and HART output signal H or S with SIL qualification

Power supply and signal circuit I: (terminals 1[+], 2[-] in the connection compartment)	$U_n = 9.6 \dots 30 \text{ V DC}$
	$I_n = 4 \dots 22 \text{ mA}$
Power supply and signal circuit II: (terminals 17[+], 18[-] in the connection compartment)	$U_n = 9.6 \dots 30 \text{ V DC}$
	$I_n = 4 \dots 22 \text{ mA}$

##### IPT-2\* or CPT-2\*-T/2/4\*-\*\*\*\*-P/F\*-\*\*\*\*\*-\*\*\*\*\*-\*\*\*-\*\*, version with output signal P (Profibus PA) and F (Foundation Fieldbus)

Power supply and signal circuit:	$U_n = 9.6 \dots 32 \text{ V DC}$
(terminals 1[+], 2[-] in electronics compartment; with double chamber housing version in connection compartment)	$I_n = 4 \dots 11 \text{ mA}$

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**IPT-2\* or CPT-2\*-\*T/2/4\*-\*\*\*\*\*-R/T\*-\*\*\*\*\*-\*\*\*\*\*-\*\*\*-\*\*, version with Slave electronics R or T for electronic differential pressure**

Power supply and signal circuit I: (terminals 5, 6, 7, 8)

For connection of an IPT-2\* or CPT-2\* with selected output signal H/S/P/F as differential pressure measurement.

**IPT-2\* or CPT-2\*-\*T/2/4\*-\*\*\*\*\*-H/S/P/F\*-\*\*\*\*\*-\*\*\*\*\*-\*\*\*-\*\*, version for connection of an external display and adjustment unit for HART H and S and bus electronics P and F**

Power supply and signal circuit I: (terminals 5, 6, 7, 8)

For connection to the circuit (terminals 5, 6, 7, 8) of the corresponding external display and adjustment unit DI-PT-E or for connection of a IPT-2\* or CPT-2\* with selected output signal R or T as differential pressure measurement.

**IPT-2\* or CPT-2\*-\*T\*-\*\*\*\*\*-A/H\*-\*\*\*\*\*-\*\*\*\*\*-\*\*\*-\*\*, version 4 ... 20 mA A and 4 ... 20 mA/HART without SIL H**

Power supply and signal circuit:  
(terminals 1[+], 2[-] in electronics compartment; with double chamber housing version in connection compartment)

$U_n = 9.6 \dots 30 \text{ V DC}$   
 $I_n = 4 \dots 22 \text{ mA}$

**IPT-2\* or CPT-2\*-\*T\*-\*\*\*\*\*-U\*-\*\*\*\*\*-\*\*\*\*\*-\*\*\*-\*\*, version with four-wire Modbus U**

Power supply and signal circuit I:  
(terminals 1[+], 2[-] in the connection compartment)

$U_n = 9.6 \dots 30 \text{ V DC}$   
 $I_n = 4 \dots 22 \text{ mA}$

Power supply and signal circuit II:  
(terminals MB[+], MB[-])

$U_n = 5 \text{ V DC}$   
 $I_n = 4 \dots 22 \text{ mA}$   
MODBUS signal (telegram)

**IPT-2\* or CPT-2\*-\*T\*-\*\*\*\*\*-H\*-\*\*\*\*\*-\*\*\*\*\*-\*\*\*-\*\*, version with HART output signal H**

Power supply and signal circuit I:  
(terminals 5, 6, 7, 8)

For connection to the circuit (terminals 5, 6, 7, 8) of the corresponding external display and adjustment unit DI-PT-E or for connection of a IPT-2\* or CPT-2\* with selected output signal R or T as differential pressure measurement.

**IPT-2\* or CPT-2\*-\*T\*-\*A/S\*\*\*-\*\*\_\*\*\*\*\*-\*\*\*\*\*-\*\*\*-\*\* with remote housing**

Transmitter circuits:  
(terminals 1 [yellow], 2 [white], 3 [red], 4 [black])

In the version with a cable between electronics and transmitter housing, a length of the supplied cable of max. 180 m is permitted.  
The intrinsically safe circuits to the sensor are galvanically connected to ground potential.



### Permissible ambient temperature

## Permissible temperature range

- Electronics housing	-40 ... +60 °C
- Sensor	-40 ... +60 °C
Max. surface temperature	
- Electronics housing (electronics A/H/S/R/T/P/F)	Ambient temperature +42 K

### Permissible temperature range

- Electronics housing	-40 ... +60 °C
- Sensor	-40 ... +60 °C
Max. surface temperature	
- Sensor	Ambient temperature +41 K

### Permissible temperature range

- Electronics housing	-40 ... +60 °C
- Sensor	-40 ... +60 °C
<b>Max. surface temperature</b>	
- Electronics housing (electronics A/H/S/R/T/P/F)	Ambient temperature +3 K
- Sensor	Ambient temperature +41 K

**EPL Da/Db or EPL Da/Dc instrument, with type code IPT-2\* or CPT-2\*\_\*\*\*\_\*\*\*\*\*\_\*\*\_\*\*\*\*\*\_\*\*\*\*E/  
A/C/Q/F/O\*\*\*\_\*\*\*\_\*\* for extended process temperature and IPT-2\* or CPT-2\*\_\*\*\*\_\*\*\*\*\*\_\*\*\_\*\*\*\*\*\_  
\*\*\*\*H/T\*\*\*\_\*\*\*\_\*\* for high temperature version**

Permissible temperature range

- Electronics housing -40 ... +60 °C
- Sensor -40 ... +130 °C, IPT-2\* or CP

\*\*\*\*\*

Max. surface temperature	
- Electronics housing (electronics A/H/S/R/T/P/F)	Ambient temperature +18 K
- Sensor	Ambient temperature +41 K

<b>Permissible temperature range</b>	
- Electronics housing	-40 ... +60 °C
- Sensor	-40 ... +150 °C, IPT-2* or CPT-2*-***-*****-**- *****-***E/ A/C/Q/F***-***-**
<b>Max. surface temperature</b>	
- Electronics housing (electronics A/H/S/R/T/P/F)	Ambient temperature +18 K
- Sensor	Ambient temperature +41 K

- Electronics housing

-40 ... +60 °C

- Sensor

-40 ... +180 °C, IPT-2\* or CPT-2\*  
\*\*\*\*H\*\*\*\* \*\*\* \*\*

- Electronics housing (electronics A/H/S/R/T/P/F)

Ambient temperature +14 K

- Sensor

Ambient temperature +41 K

- Electronics housing

-40 ... +60 °C

- Sensor

-40 ... +200 °C, IPT-2\* or CPT-2\* -\*\*\*-\*\*\*\*\*-\*\*-\*\*\*\*\*-  
\*\*\*\*\*T\*\*\* \*\*

- Electronics housing

Ambient temperature +15 K

- Sensor

Ambient temperature +41 K

Permissible temperature range  
Electronics housing

### Permissible temperature range

## Electronics housing

-40 ... +60 °C

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Observe manual of the manufacturer.