



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 TUN 18.0004X

Issue No: 0

Certificate history:

Issue No. 0 (2018-06-01)

Status: Current

Page 1 of 4

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*-I/2*-*****-A/H/S/P/F/R/T*-*****-S*Z*-***-** and CPT-2*-I/2*-*****-A/H/S/P/F/R/T*-*****-*****-***-**

Optional accessory: See attachment

Type of Protection: Intrinsic Safety "ia"

Marking:

Ex ia IIC T6...T1 Ga resp. Ga/Gb resp. Gb

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





IECEx Certificate of Conformity

Certificate No: IECEx TUN 18.0004X

Issue No: 0

Date of Issue: 2018-06-01

Page 2 of 4

Manufacturer: WKA 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:

IEC 60079-0 : 2011 Explosive atmospheres - Part 0: General requirements

Edition:6.0

IEC 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

Edition:6.0

IEC 60079-26 : 2014-10 Explosive atmospheres - Part 26: Equipment with Equipment Protection Level (EPL) Ga

Edition:3.0

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/ExTR18.0014/00

Quality Assessment Report:

DE/BVS/QAR07.0010/12



IECEx Certificate of Conformity

Certificate No: IECEx TUN 18.0004X

Issue No: 0

Date of Issue: 2018-06-01

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

General product information:

Subject and Type:

Process transmitter type IPT-2*-1/2*-*****-A/H/S/P/F/R/T*-*****-***S*Z**-***-** and

CPT-2*-1/2*-*****-A/H/S/P/F/R/T*-*****-*****-***-**

Description:

The process transmitters type IPT-2*-1/2*-*****-A/H/S/P/F/R/T*-*****-***S*Z**-***-** and

CPT-2*-1/2*-*****-A/H/S/P/F/R/T*-*****-*****-***-** 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 18.0004X_issue 00

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. At the plastic parts of the process transmitter type IPT-2*-1/2* and CPT-2*-1/2* there is a danger of ignition by electrostatic discharge.



IECEx Certificate of Conformity

Certificate No: IECEx TUN 18.0004X

Issue No: 0

Date of Issue: 2018-06-01

Page 4 of 4

Observe manual of the manufacturer and warning label.

2. For EPL Ga resp. EPL Ga/Gb applications, at the metallic parts of the process transmitter type IPT-2*-I/2* and CPT-2*-I/2* made of light metal there is a danger of ignition by impact or friction. Observe manual of the manufacturer.
3. For EPL Ga resp. EPL Ga/Gb applications and at risks by pendulum or vibration the respective parts of the process transmitter type IPT-2*-I/2* and CPT-2*-I/2* have to be secured effectively against these dangers. Observe manual of the manufacturer.
4. For EPL Ga/Gb applications, the medium tangent materials of the process transmitter type IPT-2*-I/2* and CPT-2*-I/2* have to be resistant to the media. Observe manual of the manufacturer.
5. For the execution with separate housing of the process transmitter type IPT-2*-I/2* and CPT-2*-I/2*, 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.

Annex:

[Attachment to IECEx TUN 18.0004X_issue 00.pdf](#)

Page 1 of 10
Attachment to IECEx TUN 18.0004X Issue 0

General product information:

Subject and Type:

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

Description:

The process transmitters type IPT-2*-*I/2*-*A/H/S/P/F/R/T*-*S*Z**-* and CPT-2*-*I/2*-*A/H/S/P/F/R/T*-******-* 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:

Version with single chamber housing A, K, V or 8, IPT-2*-*I/2*, CPT-2*-*I/2* with selected output signal IPT-2* or CPT-2*-*A/K/V/8*-*A/H/S*-****-* , A (4 ... 20 mA), H (4 ... 20 mA/HART) or S (4 ... 20 mA/HART with SIL qualification)**

Supply and signal circuit:
(terminals 1[+], 2[-] in the "Ex-i"
electronics compartment or plug
connection)

In ignition protection type intrinsic safety Ex ia IIC/IIB
Only for connection to a certified, intrinsically safe circuit.
Maximum values:

$U_i = 30 \text{ V}$
 $I_i = 131 \text{ mA}$
 $P_i = 983 \text{ mW}$

The effective internal capacitance C_i is negligibly small.

In the version with permanently mounted connection cable, $C_{i \text{ wire/wire}} = 150 \text{ pF/m}$ and $C_{i \text{ wire/screen}} = 270 \text{ pF/m}$ must be taken into account.

The effective inner inductance L_i is $L_i \leq 5 \text{ } \mu\text{H}$. In the version with permanently mounted connection cable, $L_i = 0.62 \text{ } \mu\text{H/m}$ must also be taken into account.

Page 2 of 10
Attachment to IECEx TUN 18.0004X Issue 0

Version with double chamber housing D, W or R, IPT-2*-*/I/2*, CPT-2*-*/I/2* with selected output signal IPT-2* or CPT-2*-*-D/W/R****-A/H/S*-*****-*****-***-**, A (4 ... 20 mA), H (4 ... 20 mA/HART) or S (4 ... 20 mA/HART with SIL qualification)**

Power supply and signal circuit:
(terminal 1[+], 2[-] in the "Ex-i"
connection compartment)

In ignition protection type intrinsic safety Ex ia IIC/IIB
Only for connection to a certified, intrinsically safe circuit.
Maximum values:

$U_i = 30 \text{ V}$
 $I_i = 131 \text{ mA}$
 $P_i = 983 \text{ mW}$

The effective internal capacitance C_i is negligibly small.
In the version with permanently mounted connection cable,
 $C_{i \text{ wire/wire}} = 150 \text{ pF/m}$ and $C_{i \text{ wire/screen}} = 270 \text{ pF/m}$
must be taken into account.
The effective inner inductance L_i with the double chamber
version is $L_i \leq 10 \text{ }\mu\text{H}$. In the version with permanently
mounted connection cable, $L_i = 0.62 \text{ }\mu\text{H/m}$ must also be
taken into account.

IPT-2*-*/I/2*, CPT-2*-*/I/2*selected output signal IPT-2* or CPT-2*-*-****-A/ H/S*-*****-*****-***-**, A (4 ... 20 mA), H (4 ... 20 mA/HART) or S (4 ... 20 mA/HART with SIL qualification)**

Indicating and adjustment circuit:
(terminals 5, 6, 7, 8)1)2)3)

In ignition protection type intrinsic safety Ex ia IIC
For connection to the intrinsically safe circuit 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
CPT-2* or IPT-2*-***-****- R/T*-*****-*****-***-**, R or T
for differential pressure measurement.
The rules for the interconnection of intrinsically safe circuits
between IPT-2*-*/I/2*, CPT-2*-*/I/2* and the external display
and adjustment unit DI-PT-E* or IPT-2* or CPT-2* with
selected output signal IPT-2* or CPT-2*-***-****- R/T*-*****-
*****-***-**, R or T are fulfilled, provided that the total
inductance
and total capacitance of the connection cable between
IPT-2*-*/I/2*, CPT-2*-*/I/2* and the external display and
adjustment unit DI-PT-E* or IPT-2* or CPT-2* with
selected output signal CPT-2* or IPT-2*-***-****-R/T*-*****-
*****-***-**, R or T $L_{\text{cable}} = 330 \text{ }\mu\text{H}$ and $C_{\text{cable}} = 1.98 \text{ }\mu\text{F}$
are not exceeded.
When using the delivered connection cable between
IPT-2*-*/I/2*, CPT-2*-*/I/2* and the external display and
adjustment unit DI-PT-E* or IPT-2* or CPT-2* with selected
output signal CPT-2* or IPT-2*-***-****- R/T*-*****-
*****-***-**, R or T, the following listed cable inductances L_i and
cable capacitances C_i must be taken into account.

Page 3 of 10
Attachment to IECEx TUN 18.0004X Issue 0

$L_i = 0.62 \mu\text{H/m}$

$C_{i \text{ wire/wire}} = 150 \text{ pF/m}$

$C_{i \text{ wire/screen}} = 270 \text{ pF/m}$

1) In the "Ex-i" electronics compartment with IPT-2* or CPT-2*-***-A/ K/V/8****-**-*****-*****-***-** in version with single chamber housing A, K, V or 8.

2) In the "Ex-i" connection compartment with IPT-2* or CPT-2*-***-D/ W/R****-**-*****-*****-***-** in version with double chamber housing D, W or R.

3) Additional plug connection with IPT-2* or CPT-2*-***-D/ W/R****-**-*****-*****-***-** in version with double chamber housing D, W, R and housing version/protection P, IPT-2* or CPT-2*-***-D/W/RP****-**-*****- *****-***-** (with M12 x 1 for DI-PT-E*).

Intrinsically safe circuit for the display and adjustment module

Version with single chamber housing A, K, V or 8, IPT-2*-I/2*, CPT-2*-I/2* with selected output signal IPT-2* or IPT-2*-*-A/K/V/8****-A/H/S*-*****-*****-***-**, A (4 ... 20 mA), H (4 ... 20 mA/HART) or S (4 ... 20 mA/HART with SIL qualification)**

Circuit for the display and adjustment module: (spring contacts in the "Ex-i" electronics compartment)

In ignition protection type intrinsic safety

Ex ia IIC

Only for connection to the display and adjustment module DI-PT-A.

Version with double chamber housing D, W or R, IPT-2*-I/2*, CPT-2*-I/2* with selected output signal IPT-2* or IPT-2*-*-D/W/R****-A/H/S*-*****-*****-***-**, A (4 ... 20 mA), H (4 ... 20 mA/HART) or S (4 ... 20 mA/HART with SIL qualification)**

Circuit for the display and adjustment module: (spring contacts in the "Ex-i" connection compartment)

In ignition protection type intrinsic safety Ex ia IIC

Only for connection to the display and adjustment module DI-PT-A.

or

Circuit for the display and adjustment module: (spring contacts in the "Ex-i" electronics compartment)

In ignition protection type intrinsic safety Ex ia IIC

Only for connection to the display and adjustment module DI-PT-A.

In the double chamber version, the display and adjustment module DI-PT-A must only be equipped in the connection compartment, if there is no external display and adjustment unit DI-PT-E* or IPT-E* or CPT-E* with selected output signal IPT-2* or CPT-2*-***-*****- R/T*-*****- *****-***-**, R, T connected.

Version with double chamber housing D, W or R with housing version/protection P (with M12 x 1 for DI-PT-E), IPT-2*-I/2*, CPT-2*-I/2* with selected output signal CPT-2* or IPT-2*- *-D/W/R****-A/H/S*-*****-*****-***-**, A (4 ... 20 mA), H (4 ... 20 mA/HART) or S (4 ... 20 mA/ HART with SIL qualification)**

Circuit for the display and adjustment module: (spring contacts in the "Ex-i" connection compartment)

In ignition protection type intrinsic safety Ex ia IIC

Only for connection to the display and adjustment module DI-PT-A.

In the double chamber version, the display and adjustment module DI-PT-A must only be equipped in the connection compartment, if there is no

$$\begin{aligned} U_i &= 24 \text{ V} \\ I_i &= 250 \text{ mA} \\ P_i &= 1.2 \text{ W} \end{aligned}$$

Page 5 of 10
Attachment to IECEx TUN 18.0004X Issue 0

The effective internal capacitance C_i is negligibly small.
In the version with permanently mounted connection cable,
 $C_{i \text{ wire/wire}} = 150 \text{ pF/m}$ and $C_{i \text{ wire/screen}} = 270 \text{ pF/m}$ must be taken into account.

The effective internal inductance is $L_i \leq 5 \text{ } \mu\text{H}$.
In the version with fix mounted connection cable, also
 $L_i = 0.62 \text{ } \mu\text{H/m}$ must be taken into consideration.

IPT-2*-I/2*, CPT-2*-I/2* with selected output signal IPT-2* or CPT-2*-*-*****- P/F-*****-*****-***-**, P (Profibus PA), F (Foundation Fieldbus)**

Indicating and adjustment circuit:
(terminals 5, 6, 7, 8)4)5)6)

In ignition protection type intrinsic safety Ex ia IIC
For connection to the intrinsically safe circuit 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 CPT-2* or IPT-2*-***-*****- R/T-*****-*****-***-**, R or T for differential pressure measurement.

The rules for the interconnection of intrinsically safe circuits between IPT-2*-I/2*, CPT-2*-I/2* and the external display and adjustment unit DI-PT-E* or IPT-2* or CPT-2* with selected output signal IPT-2* or CPT-2*-***-*****- R/T-*****-*****-***-**, R or T are fulfilled, provided that the total inductance and total capacitance of the connection cable between IPT-2*-I/2*, CPT-2*-I/2* and the external display and adjustment unit DI-PT-E* or IPT-2* or CPT-2* with selected output signal IPT-2* or CPT-2* with selected output signal IPT-2* or CPT-2*-***-*****- R/T-*****-*****-***-** R or T $L_{\text{cable}} = 330 \text{ } \mu\text{H}$ and $C_{\text{cable}} = 1.98 \text{ } \mu\text{F}$ are not exceeded.

When using the delivered connection cable between IPT-2*-I/2*, CPT-2*-I/2* and the external display and adjustment unit DI-PT-E* or IPT-2* or CPT-2* with selected output signal IPT-2* or CPT-2* or IPT-2*-***-*****- R/T-*****-*****-***-**, R or T, the following listed cable inductances L_i and cable capacitances C_i must be taken into account.

$L_i = 0.62 \text{ } \mu\text{H/m}$

$C_{i \text{ wire/wire}} = 150 \text{ pF/m}$

$C_{i \text{ wire/screen}} = 270 \text{ pF/m}$

4) In the "Ex-i" electronics compartment with IPT-2* or CPT-2*-***-A/ K/V/8***-**_*****_*****_***-** in version with single chamber housing A, K, V or 8.

5) In the "Ex-i" connection compartment with IPT-2* or CPT-2*-***-D/ W/R***-**_*****_*****_***-** in version with double chamber housing D, W or R.

6) Additional plug connection with IPT-2* or CPT-2*-***-D/ W/R***-**_*****_*****_***-** in version with double chamber housing D, W, R and housing version/protection P CPT-2* or IPT-2*-***-D/W/RP***-**_*****_*****_***-**, (with M12 x 1 for DI-PT-E*).

Page 6 of 10
Attachment to IECEx TUN 18.0004X Issue 0

Intrinsically safe circuit for the display and adjustment module Version with single chamber housing A, K, V or 8, IPT-2*-*I/2*, CPT-2*-*I/2* with selected output signal IPT-2* or CPT-2*-*A/K/V/8*-P/F*-*-*-*-*-*-*-*-*-*-**, P (Profibus PA), F (Foundation Fieldbus)**

Circuit for the display and adjustment module: (spring contacts in the "Ex-i" electronics compartment)

In ignition protection type intrinsic safety Ex ia IIC
Only for connection to the display and adjustment module DI-PT-A.

Version with double chamber housing D, W or R, IPT-2*-*I/2*, CPT-2*-*I/2* with selected output signal CPT-2* or IPT-2*-*D/W/R*-P/F*-*-*-*-*-*-*-*-*-*-**, P (Profibus PA), F (Foundation Fieldbus)**

Circuit for the display and adjustment module: (spring contacts in the "Ex-i" connection compartment)

In ignition protection type intrinsic safety Ex ia IIC
Only for connection to the display and adjustment module DI-PT-A.

or

Circuit for the display and adjustment module: (spring contacts in the "Ex-i" electronics compartment)

In ignition protection type intrinsic safety Ex ia IIC
Only for connection to the display and adjustment module DI-PT-A.
In the double chamber version, the display and adjustment module DI-PT-A must only be equipped in the connection compartment, if there is no external display and adjustment unit DI-PT-E* or IPT-E* or CPT-E* with selected output signal CPT-2* or IPT-2*-*-*-*-*-*-*-* R/T*-*-*-*-*-*-*-*-*-*-**, R, T connected.

Version with double chamber housing D, W or R with housing version/protection P (with M12 x 1 for DI-PT-E*), IPT-2*-*I/2*, CPT-2*-*I/2* with selected output signal CPT-2* or IPT-2*-*D/W/RP*-A/H/S*-*-*-*-*-*-*-*-*-*-**, A (4 ... 20 mA), H (4 ... 20 mA/HART) or S (4 ... 20 mA/HART with SIL qualification)**

Circuit for the display and adjustment module: (spring contacts in the "Ex-i" connection compartment)

In ignition protection type intrinsic safety Ex ia IIC
Only for connection to the display and adjustment module DI-PT-A.
In the double chamber version, the display and adjustment module DI-PT-A must only be equipped in the connection compartment, if there is no external display and adjustment unit DI-PT-E* or IPT-E* or CPT-E* with selected output signal CPT-2* or IPT-2*-*-*-*-*-*-*-* R/T*-*-*-*-*-*-*-*-*-*-**, R, T connected.

Only version single chamber housing, IPT-2*-*I/2*, CPT-2*-*I/2* with selected output signal CPT-2* or IPT-2*-*A/K/V/8*-R/T*-*-*-*-*-*-*-*-*-*-**, R or T**

Power supply and signal circuit: (terminals 5, 6, 7, 8 in the electronics compartment)

In ignition protection type intrinsic safety Ex ia IIC
For connection to the intrinsically safe circuit of a IPT-2*-*I/2*, CPT-2*-*I/2* with selected output signal CPT-2* or IPT-2*-*-*-*-*-*-*-* H/S/P/F*-*-*-*-*-*-*-*-*-*-**, H, S, P, F for differential pressure measurement.
The rules for the interconnection of intrinsically safe circuits between IPT-2* or CPT-2* with selected output signal CPT-2* or IPT-2*-*-*-*-*-*-*-* R/T*-*-*-*-*-*-*-*-*-*-**, R or T and the IPT-2*-*I/2*, CPT-2*-*I/2* with electronics H, S, P or F are

Page 7 of 10
Attachment to IECEx TUN 18.0004X Issue 0

fulfilled, provided that the total inductance and total capacitance of the connection cable between IPT-2*-1/2*, CPT-2*-1/2* and IPT-2* or CPT-2* with selected output signal CPT-2* or IPT-2*-***-****- R/T*-*****-*****-***-**, R or T $L_{\text{cable}} = 330 \mu\text{H}$ and $C_{\text{cable}} = 2.00 \mu\text{F}$ are not exceeded.

When using the delivered connection cable between IPT-2*-1/2*, CPT-2*-1/2* and the external display and adjustment unit DI-PT-E* or IPT-2* or CPT-2* with electronics R or T, the following listed cable inductances L_i and cable capacitances C_i must be taken into account.

$L_i = 0.62 \mu\text{H/m}$

$C_{i \text{ wire/wire}} = 150 \text{ pF/m}$

$C_{i \text{ wire/screen}} = 270 \text{ pF/m}$

IPT-2*-1/2*, CPT-2*-1/2* selected output signal CPT-2* or IPT-2*-*-****B-H/S*-*****-*****-***-**, H (4 ... 20 mA/HART) or S (4 ... 20 mA/HART with SIL qualification) and with supplementary electronics (B)**

Supply and signal circuit I: (terminals 1[+], 2[-] in the "Ex-i" terminal compartment or plug connection)

In ignition protection type intrinsic safety Ex ia IIC/IIB
Only for connection to a certified, intrinsically safe circuit.
Maximum values:

$U_i = 30 \text{ V}$

$I_i = 131 \text{ mA}$

$P_i = 983 \text{ mW}$

The effective internal capacitance C_i is negligibly small.

In the version with permanently mounted connection cable, $C_{i \text{ wire/wire}} = 150 \text{ pF/m}$ and $C_{i \text{ wire/screen}} = 270 \text{ pF/m}$ must be taken into account.

The effective inner inductance L_i is $L_i \leq 5 \mu\text{H}$. In the version with permanently mounted connection cable, $L_i = 0.62 \mu\text{H/m}$ must also be taken into account.

Power supply and signal circuit II: (terminal 7[+], 8[-] in the "Ex-i" terminal compartment)

In ignition protection type intrinsic safety Ex ia IIC/IIB
Only for connection to a certified, intrinsically safe circuit.
Maximum values:

$U_i = 30 \text{ V}$

$I_i = 131 \text{ mA}$

$P_i = 983 \text{ mW}$

The effective internal capacitance C_i is negligibly small.

In the version with permanently mounted connection cable, $C_{i \text{ wire/wire}} = 150 \text{ pF/m}$ and $C_{i \text{ wire/screen}} = 270 \text{ pF/m}$ must be taken into account.

The effective inner inductance L_i is $L_i \leq 5 \mu\text{H}$. In the version with permanently mounted connection cable, $L_i = 0.62 \mu\text{H/m}$ must also be taken into account.

Page 8 of 10
Attachment to IECEx TUN 18.0004X Issue 0

Display and adjustment circuit:
(plug connection of the double
chamber housing)

In ignition protection type intrinsic safety Ex ia IIC
For connection to the intrinsically safe circuit of the
corresponding external display and adjustment unit DI-
PT-E*.

The rules for the interconnection of intrinsically safe
circuits between IPT-2*-*I/2*, CPT-2*-*I/2* and the
external display and adjustment unit DI-PT-E* are fulfilled,
provided that the total inductance and total capacity of the
connection cable between IPT-2*-*I/2*, CPT-2*-*I/2* and
the external display and adjustment unit DI-PT-E* $L_{\text{cable}} =$
330 μH and $C_{\text{cable}} = 1.98 \mu\text{F}$ is not exceeded.

When using the delivered connection cable between IPT-
2*-*I/2*, CPT-2*-*I/2* and the external display and
adjustment unit DI-PT-E*, the following listed cable
inductances L_i and cable capacitances C_i must be taken
into account.

$L_i = 0.62 \mu\text{H/m}$

$C_{i \text{ wire/wire}} = 150 \text{ pF/m}$

$C_{i \text{ wire/screen}} = 270 \text{ pF/m}$

Circuit for the display and adjustment
module: (spring contacts in the "Ex-i"
electronics compartment)

In ignition protection type intrinsic safety Ex ia IIC
Only for connection to the display and adjustment
module DI-PT-A.

IPT-2*-*I/2*, CPT-2*-*I/2* Version with separate cable outlet (all electronics)

Circuit between sensor unit and
external electronics (terminal 1-
yellow, terminal 2 - white, terminal 3
- red, terminal 4 - black)

In ignition protection type intrinsic safety Ex ia IIC

With IPT-2*-*I/2*, CPT-2*-*I/2* in the version with fix mounted
cable on the sensor unit and external electronics, the supplied
cable between the external housing and the sensor unit must
not exceed a length of 180 m.

The intrinsically safe circuits are electrically separated from parts which can be grounded.

The metallic parts of IPT-2*-*I/2*, CPT-2*-*I/2* are electrically connected with the earth terminals.

For applications requiring equipment of type EPL Ga or EPL Ga/Gb, the intrinsically safe power supply
and signal circuit must correspond to protection class ia.

Page 9 of 10
Attachment to IECEx TUN 18.0004X Issue 0

Thermal data:

If the process transmitters are used in explosion hazardous areas for EPL Ga applications, the permissible temperature range in the area of the electronics/at the measuring sensor dependent on the temperature class has to be taken from the following table:

Temperature class	Ambient temperature range (electronics) and medium temperature range (measuring sensor)
T6	-20 °C ... +23 °C
T5	-20 °C ... +60 °C
T4	-20 °C ... +60 °C
T3	-20 °C ... +60 °C
T2	-20 °C ... +60 °C
T1	-20 °C ... +60 °C

The measuring sensors and the electronics are allowed to be operated in an explosion hazardous area for EPL Ga applications, only if atmospheric conditions exist (pressure from 0.8 bar to 1.1 bar).

If no explosion hazardous atmospheres exist, the permissible operating temperatures and pressures have to be taken from the manufacturer's data (manual).

For the max. permissible ambient and medium temperature ranges, the EN 1127-1:2011, section 6.4.2 was considered.

If the process transmitters are used in explosion hazardous areas for EPL Ga/Gb applications, the permissible temperature range in the area of the electronics/at the measuring sensor dependent on the temperature class has to be taken from the following table:

Temperature class	Ambient temperature range (electronics, zone 1)	Medium temperature range (measuring sensor, zone 0)
T6	-50 °C ... +39 °C	-20°C ... +23 °C
T5	-50 °C ... +70 °C	-20°C ... +60 °C
T4	-50 °C ... +70 °C	-20°C ... +60 °C
T3	-50 °C ... +70 °C	-20°C ... +60 °C
T2	-50 °C ... +70 °C	-20°C ... +60 °C
T1	-50 °C ... +70 °C	-20°C ... +60 °C

The measuring sensors are allowed to be operated in an explosion hazardous area for EPL Ga applications, only if atmospheric conditions exist (pressure from 0.8 bar to 1.1 bar).

If no explosion hazardous atmospheres exist, the permissible operating temperatures and pressures have to be taken from the manufacturer's data (manual).

If the measuring sensors are operated at higher medium temperatures as listed in the a.m. table, measures have to be taken, that the danger of ignition caused by hot surfaces is excluded. The max. permissible temperature at the electronics/housing must not exceed the values as mentioned in the a.m. table.

For the max. permissible medium temperature ranges, the EN 1127-1:2011, section 6.4.2 was considered.

If the process transmitters are used in explosion hazardous areas for EPL Gb applications, the permissible temperature range in the area of the electronics/at the measuring sensor dependent on the temperature class has to be taken from the following table:

Page 10 of 10
Attachment to IECEx TUN 18.0004X Issue 0

Temperature class	Ambient temperature range (electronics) and medium temperature range (measuring sensor)
T6	-50 °C ... +39 °C
T5	-50 °C ... +70 °C
T4	-50 °C ... +70 °C
T3	-50 °C ... +70 °C
T2	-50 °C ... +70 °C
T1	-50 °C ... +70 °C

If the measuring sensors are operated at higher medium temperatures as listed in the a.m. table, measures have to be taken, that the danger of ignition caused by hot surfaces is excluded. The max. permissible temperature at the electronics/housing must not exceed the values as mentioned in the a.m. table.

If no explosion hazardous atmospheres exist, the permissible operating temperatures and pressures have to be taken from the manufacturer's data (manual).

The ambient temperature derating at process temperatures up to +150 °C and up to +200 °C has to be taken from the manual of the manufacturer.

“Specific Conditions of Use” / “Schedule of Limitations”:

1. At the plastic parts of the process transmitter type IPT-2*-1/2* and CPT-2*-1/2* there is a danger of ignition by electrostatic discharge.
Observe manual of the manufacturer and warning label.
2. For EPL Ga resp. EPL Ga/Gb applications, at the metallic parts of the process transmitter type IPT 2*-1/2* and CPT-2*-1/2* made of light metal there is a danger of ignition by impact or friction.
Observe manual of the manufacturer.
3. For EPL Ga resp. EPL Ga/Gb applications and at risks by pendulum or vibration the respective parts of the process transmitter type IPT-2*-1/2* and CPT-2*-1/2* have to be secured effectively against these dangers. Observe manual of the manufacturer.
4. For EPL Ga/Gb applications, the medium tangent materials of the process transmitter type IPT-2*-1/2* and CPT-2*-1/2* have to be resistant to the media. Observe manual of the manufacturer.
5. For the execution with separate housing of the process transmitter type IPT-2*-1/2* and CPT-2*-1/2*, 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.