



# 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 BAS 16.0108X** Page 1 of 4 Certificate history:  
Status: **Current** Issue No: 2 [Issue 1 \(2018-09-17\)](#)  
[Issue 0 \(2017-02-01\)](#)  
Date of Issue: 2023-11-14  
Applicant: **Topworx Incorporated**  
3300 Fern Valley Road  
Louisville  
Kentucky 40213  
**United States of America**  
Equipment: **K5L & K7L Series K4-20 Position Transmitter**  
Optional accessory:  
Type of Protection: **Intrinsic Safety & Protection by Enclosure 'tb'**  
Marking: **Ex ia IIC T4/T5/T6 Gb**  
**Ex tb III C T135°C / T100°C / T85°C Db ('D' marked models only)**  
**See Certificate Annex for Full markings**

Approved for issue on behalf of the IECEx  
Certification Body:

**R.S. Sinclair**

Position:

**Technical Manager**

Signature:  
(for printed version)

Date:  
(for printed version)

14/11/2023

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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 [www.iecex.com](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**SGS UK Limited**  
**Rockhead Business Park**  
**Staden Lane**  
**Buxton, Derbyshire SK17 9RZ**  
**United Kingdom**





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Certificate No.: **IECEX BAS 16.0108X**

Page 2 of 4

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Manufacturer: **Topworx Incorporated**  
3300 Fern Valley Road  
Louisville  
Kentucky 40213  
**United States of America**

Manufacturing locations: **Topworx Incorporated**  
3300 Fern Valley Road  
Louisville  
Kentucky 40213  
**United States of America**

**Asco Joucomatic Limited Trading as Asco Numatics**  
2 Pit Hey Place  
West Pimbo  
Skelmersdale  
Lancashire WN8 9PG  
**United Kingdom**

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

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

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 Reports:

[GB/BAS/ExTR16.0261/00](#)

[GB/SGS/ExTR23.0105/00](#)

Quality Assessment Reports:

[GB/SIR/QAR06.0056/11](#)

[GB/SIR/QAR07.0025/11](#)



# IECEX Certificate of Conformity

Certificate No.: **IECEX BAS 16.0108X**

Page 3 of 4

Date of issue: 2023-11-14

Issue No: 2

## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The K7L Series K4-20 Position Transmitter consist an aluminium or stainless steel enclosure containing a terminal block, up to two volt free switches or up to four certified proximity sensors in any combination, a potentiometer and an optional Position Transmitter. The K5L Series K4-20 Position Transmitter is of a similar construction to the K7L but is housed in a low profile enclosure. Both K5L & K7L versions may include an optional mechanical visual indicator. External electrical connections are made via up to four tapped holes.

Models of the equipment with a 'D' in the model number are gas and dust certified. The installation of the external connections and plugging of the unused entries in these variants must be carried out using appropriately certified IP6X cable glands and blanking plugs.

Models of the equipment marked with a 'G' in the model number are only gas certified. The installation of the external connections and plugging of the unused entries in these variants must be carried out using appropriate cable glands and blanking plugs with a minimum ingress protection of at least IP20. These variants may also be optionally fitted with plug and socket connections fitted to the entries of the enclosure.

See the Certificate Annex for model, electrical and temperature parameters.

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

1. The cable glands used as entries to the enclosure must be suitably certified cable glands to the requirements of IEC 60079-0, Edition 7, including Annex A, with a minimum IP rating of IP6X in order to comply with the requirements of IEC 60079-31, Edition 2.
2. Any unused entries must be fitted with a suitably certified blanking plug certified to the requirements of IEC 60079-0, Edition 7 with a minimum IP rating of IP6X in order to comply with the requirements of IEC 60079-31, Edition 2.



# IECEX Certificate of Conformity

Certificate No.: **IECEX BAS 16.0108X**

Page 4 of 4

Date of issue: 2023-11-14

Issue No: 2

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

### Variation 2.1

Confirm the current equipment design meets the requirements of IEC 60079-0:2017.

### Variation 2.2

Introduction of new conditions of use. "X" suffix added to the end of the certificate number.

ExTR: **GB/SGS/ExTR23.0105/00**

File Reference: **21/0357**

### Annex:

[IECEX BAS 16.0108 Annex Iss 0.pdf](#)

**K5L & K7L Series K4-20 Position Transmitter Model Range**

T-ET-DT4-IEC

**Potentiometer Temperature Classification (where applicable)**

T4 = T4 Potentiometer Model  
 T6 = T6 / T5 / T4 Potentiometer Model  
 Blank = Transmitter Circuit Fitted

**Transmitter Configuration**

- ET = Endress & Hauser Position Transmitter only
- AT = ABB Automation Product GmbH Position Transmitter only
- PT = PR Electronics Position Transmitter only
- RT = Rosemount Position Transmitter only
- PF = -40°C Low Ambient Temperature PR Electronics Transmitter
- PL = -40°C Low Ambient Temperature PR Electronics FISCO Transmitter
- R = Potentiometer only
- RM = Potentiometer & Volt-free Contacts
- RP = Potentiometer with Pepperl & Fuchs Proximity Sensors
- RT = Potentiometer with Hans Turck Proximity Sensors
- RF = Potentiometer with IFM Proximity Sensors
- RLF = Potentiometer with IFM Low Temperature Proximity Sensors
- ETM = Endress & Hauser Position Transmitter and Volt-free Contacts
- ATM = ABB Automation Product GmbH Position Transmitter and Volt-free Contacts
- PTM = PR Electronics Position Transmitter and Volt-free Contacts
- RTM = Rosemount Position Transmitter and Volt-free Contacts
- PFM = -40°C Low Ambient Temperature PR Electronics Transmitter and Volt-free Contacts
- PLM = -40°C Low Ambient Temperature PR Electronics FISCO Transmitter and Volt-free Contacts
- ETP = Endress & Hauser Position Transmitter with Pepperl & Fuchs Proximity Sensors
- ATP = ABB Automation Product GmbH Position Transmitter with Pepperl & Fuchs Proximity Sensors
- PTP = PR Electronics Position Transmitter with Pepperl & Fuchs Proximity Sensors
- RTP = Rosemount Position Transmitter with Pepperl & Fuchs Proximity Sensors
- PFP = -40°C Low Ambient Temperature PR Electronics Transmitter with Pepperl & Fuchs Proximity Sensors
- PLP = -40°C Low Ambient Temperature PR Electronics FISCO Transmitter with Pepperl & Fuchs Proximity Sensors
- ETT = Endress & Hauser Position Transmitter with Hans Turck Proximity Sensors
- ATT = ABB Automation Product GmbH Position Transmitter with Hans Turck Proximity Sensors
- PTT = PR Electronics Position Transmitter with Hans Turck Proximity Sensors
- RTT = Rosemount Position Transmitter with Hans Turck Proximity Sensors
- PFT = -40°C Low Ambient Temperature PR Electronics Transmitter with Hans Turck Proximity Sensors
- PLT = -40°C Low Ambient Temperature PR Electronics FISCO Transmitter with Hans Turck Proximity Sensors
- ETF = Endress & Hauser Position Transmitter with IFM Proximity Sensors
- ATF = ABB Automation Product GmbH Position Transmitter with IFM Proximity Sensors
- PTF = PR Electronics Position Transmitter with IFM Proximity Sensors
- RTF = Rosemount Position Transmitter with IFM Proximity Sensors
- PFF = -40°C Low Ambient Temperature PR Electronics Transmitter with IFM Proximity Sensors
- PLF = -40°C Low Ambient Temperature PR Electronics FISCO Transmitter with IFM Proximity Sensors
- ETLF = Endress & Hauser Position Transmitter with IFM Low Temperature Proximity Sensors
- ATLF = ABB Automation Product GmbH Position Transmitter with IFM Low Temperature Proximity Sensors
- PTLF = PR Electronics Position Transmitter with IFM Low Temperature Proximity Sensors
- RTLF = Rosemount Position Transmitter with IFM Low Temperature Proximity Sensors
- PFLF = -40°C Low Ambient Temperature PR Electronics Transmitter with IFM Low Temperature Proximity Sensors
- PLLF = -40°C Low Ambient Temperature PR Electronics FISCO Transmitter with IFM Low Temperature Proximity Sensors

**Gas / Dust Certification Code**

D = Gas & Dust Dual Certified  
 G = Gas only Certified

See Table 3 for certification details of the above Proximity Switches / Sensors & Transmitters

**Table 1: Certification Code & Input Parameters – Dual Gas & Dust Certified Models**

Model Number	Certification Code(s)	Input Parameters
T-ET-D-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +55°C) Ex tb IIIC T85°C Db (-40°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T5 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T100°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 24V, I <sub>i</sub> = 100mA, P <sub>i</sub> = 0.75W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0
T-AT-D-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +56°C) Ex tb IIIC T85°C Db (-40°C ≤ T <sub>a</sub> ≤ +56°C) Or Ex ia IIC T5 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T100°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 0.8W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0.5mH
T-PT-D-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +40°C) Ex tb IIIC T85°C Db (-40°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 1nF & L <sub>i</sub> = 10μH
T-RT-D-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +60°C) Ex tb IIIC T85°C Db (-40°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ia IIC T5 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T100°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 1.0W, C <sub>i</sub> = 3.6nF & L <sub>i</sub> = 0
T-PF-D-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +40°C) Ex tb IIIC T85°C Db (-40°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH
T-PL-D-IEC	Ex ib IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +60°C) Ex tb IIIC T85°C Db (-40°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ib IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 17.5V, I <sub>i</sub> = 380mA, P <sub>i</sub> = 5.32W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH
T-ETM-D-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +55°C) Ex tb IIIC T85°C Db (-40°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T5 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T100°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 24V, I <sub>i</sub> = 100mA, P <sub>i</sub> = 0.75W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0 Volt Free Contacts: U <sub>i</sub> = 28V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 1.3W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-ATM-D-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +56°C) Ex tb IIIC T85°C Db IP6x (-40°C ≤ T <sub>a</sub> ≤ +56°C) Or Ex ia IIC T5 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T100°C Db IP6x (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 0.8W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0.5mH Volt Free Contacts: U <sub>i</sub> = 28V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 1.3W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-PTM-D-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +40°C) Ex tb IIIC T85°C Db IP6x (-40°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db IP6x (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 1nF & L <sub>i</sub> = 10μH Volt Free Contacts: U <sub>i</sub> = 28V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 1.3W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-RTM-D-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +60°C) Ex tb IIIC T85°C Db IP6x (-40°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ia IIC T5 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T100°C Db IP6x (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 1.0W, C <sub>i</sub> = 3.6nF & L <sub>i</sub> = 0 Volt Free Contacts: U <sub>i</sub> = 28V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 1.3W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-PFM-D-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +40°C) Ex tb IIIC T85°C Db (-40°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH Volt Free Contacts: U <sub>i</sub> = 28V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 1.3W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-PLM-D-IEC	Ex ib IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +60°C) Ex tb IIIC T85°C Db (-40°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ib IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 17.5V, I <sub>i</sub> = 380mA, P <sub>i</sub> = 5.32W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH Volt Free Contacts: U <sub>i</sub> = 28V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 1.3W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0

Model Number	Certification Code(s)	Input Parameters
T-R-DT4-IEC	Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-R-DT6-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +40°C) Ex tb IIIC T85°C Db (-40°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T5 Gb (-40°C ≤ T <sub>a</sub> ≤ +55°C) Ex tb IIIC T100°C Db (-40°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.19W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-RM-DT4-IEC	Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Volt Free Contacts: U <sub>i</sub> = 28V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 1.3W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-RM-DT6-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +40°C) Ex tb IIIC T85°C Db (-40°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T5 Gb (-40°C ≤ T <sub>a</sub> ≤ +55°C) Ex tb IIIC T100°C Db (-40°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.19W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Volt Free Contacts: U <sub>i</sub> = 28V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 1.3W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-RP-DT4-IEC	Ex ia IIC T4 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 16V, I <sub>i</sub> = 52mA, P <sub>i</sub> = 0.16W, C <sub>i</sub> = 100nF & L <sub>i</sub> = 250μH
T-RP-DT6-IEC	Ex ia IIC T6 Gb (-20°C ≤ T <sub>a</sub> ≤ +40°C) Ex tb IIIC T85°C Db (-20°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T5 Gb (-20°C ≤ T <sub>a</sub> ≤ +55°C) Ex tb IIIC T100°C Db (-20°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T4 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.19W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 16V, I <sub>i</sub> = 52mA, P <sub>i</sub> = 0.16W, C <sub>i</sub> = 100nF & L <sub>i</sub> = 250μH
T-RT-DT4-IEC	Ex ia IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 20V, I <sub>i</sub> = 60mA, P <sub>i</sub> = 0.13W, C <sub>i</sub> = 250nF & L <sub>i</sub> = 350μH
T-RT-DT6-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +40°C) Ex tb IIIC T85°C Db (-25°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T5 Gb (-25°C ≤ T <sub>a</sub> ≤ +55°C) Ex tb IIIC T100°C Db (-25°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.19W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 20V, I <sub>i</sub> = 60mA, P <sub>i</sub> = 0.13W, C <sub>i</sub> = 250nF & L <sub>i</sub> = 350μH
T-RF-DT4-IEC	Ex ia IIC T4 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 80nF & L <sub>i</sub> = 110μH
T-RF-DT6-IEC	Ex ia IIC T6 Gb (-20°C ≤ T <sub>a</sub> ≤ +40°C) Ex tb IIIC T85°C Db (-20°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T5 Gb (-20°C ≤ T <sub>a</sub> ≤ +55°C) Ex tb IIIC T100°C Db (-20°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T4 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.19W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 80nF & L <sub>i</sub> = 110μH
T-RLF-DT4-IEC	Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 150nF & L <sub>i</sub> = 150μH
T-RLF-DT6-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +40°C) Ex tb IIIC T85°C Db (-40°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.19W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 150nF & L <sub>i</sub> = 150μH

Model Number	Certification Code(s)	Input Parameters
T-ETP-D-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +45°C) Ex tb IIIC T85°C Db (-25°C ≤ T <sub>a</sub> ≤ +45°C) Or Ex ia IIC T5 Gb (-25°C ≤ T <sub>a</sub> ≤ +60°C) Ex tb IIIC T100°C Db (-25°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ia IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 24V, I <sub>i</sub> = 100mA, P <sub>i</sub> = 0.75W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 16V, I <sub>i</sub> = 52mA, P <sub>i</sub> = 0.16W, C <sub>i</sub> = 100nF & L <sub>i</sub> = 250μH
T-ATP-D-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +45°C) Ex tb IIIC T85°C Db (-25°C ≤ T <sub>a</sub> ≤ +45°C) Or Ex ia IIC T5 Gb (-25°C ≤ T <sub>a</sub> ≤ +60°C) Ex tb IIIC T100°C Db (-25°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ia IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 0.8W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0.5mH Proximity Sensors: U <sub>i</sub> = 16V, I <sub>i</sub> = 52mA, P <sub>i</sub> = 0.16W, C <sub>i</sub> = 100nF & L <sub>i</sub> = 250μH
T-PTP-D-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +40°C) Ex tb IIIC T85°C Db (-25°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 1nF & L <sub>i</sub> = 10μH Proximity Sensors: U <sub>i</sub> = 16V, I <sub>i</sub> = 52mA, P <sub>i</sub> = 0.16W, C <sub>i</sub> = 100nF & L <sub>i</sub> = 250μH
T-RTP-D-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +45°C) Ex tb IIIC T85°C Db (-25°C ≤ T <sub>a</sub> ≤ +45°C) Or Ex ia IIC T5 Gb (-25°C ≤ T <sub>a</sub> ≤ +60°C) Ex tb IIIC T100°C Db (-25°C ≤ T <sub>a</sub> ≤ +60°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 1.0W, C <sub>i</sub> = 3.6nF & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 16V, I <sub>i</sub> = 52mA, P <sub>i</sub> = 0.16W, C <sub>i</sub> = 100nF & L <sub>i</sub> = 250μH
T-PFP-D-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +40°C) Ex tb IIIC T85°C Db (-25°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH Proximity Sensors: U <sub>i</sub> = 16V, I <sub>i</sub> = 52mA, P <sub>i</sub> = 0.16W, C <sub>i</sub> = 100nF & L <sub>i</sub> = 250μH
T-PLP-D-IEC	Ex ib IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +45°C) Ex tb IIIC T85°C Db (-25°C ≤ T <sub>a</sub> ≤ +45°C) Or Ex ib IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 17.5V, I <sub>i</sub> = 380mA, P <sub>i</sub> = 5.32W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH Proximity Sensors: U <sub>i</sub> = 16V, I <sub>i</sub> = 52mA, P <sub>i</sub> = 0.16W, C <sub>i</sub> = 100nF & L <sub>i</sub> = 250μH
T-ETT-D-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +55°C) Ex tb IIIC T85°C Db (-25°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T5 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T100°C Db (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 24V, I <sub>i</sub> = 100mA, P <sub>i</sub> = 0.75W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 20V, I <sub>i</sub> = 60mA, P <sub>i</sub> = 0.13W, C <sub>i</sub> = 250nF & L <sub>i</sub> = 350μH
T-ATT-D-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +56°C) Ex tb IIIC T85°C Db (-25°C ≤ T <sub>a</sub> ≤ +56°C) Or Ex ia IIC T5 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T100°C Db (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 0.8W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0.5mH Proximity Sensors: U <sub>i</sub> = 20V, I <sub>i</sub> = 60mA, P <sub>i</sub> = 0.13W, C <sub>i</sub> = 250nF & L <sub>i</sub> = 350μH
T-PTT-D-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +40°C) Ex tb IIIC T85°C Db (-25°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 1nF & L <sub>i</sub> = 10μH Proximity Sensors: U <sub>i</sub> = 20V, I <sub>i</sub> = 60mA, P <sub>i</sub> = 0.13W, C <sub>i</sub> = 250nF & L <sub>i</sub> = 350μH
T-RTT-D-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +60°C) Ex tb IIIC T85°C Db (-25°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ia IIC T5 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T100°C Db (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 1.0W, C <sub>i</sub> = 3.6nF & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 20V, I <sub>i</sub> = 60mA, P <sub>i</sub> = 0.13W, C <sub>i</sub> = 250nF & L <sub>i</sub> = 350μH
T-PFT-D-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +40°C) Ex tb IIIC T85°C Db (-25°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH Proximity Sensors: U <sub>i</sub> = 20V, I <sub>i</sub> = 60mA, P <sub>i</sub> = 0.13W, C <sub>i</sub> = 250nF & L <sub>i</sub> = 350μH



Model Number	Certification Code(s)	Input Parameters
T-PLT-D-IEC	Ex ib IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +60°C) Ex tb IIIC T85°C Db (-25°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ib IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 17.5V, I <sub>i</sub> = 380mA, P <sub>i</sub> = 5.32W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH Proximity Sensors: U <sub>i</sub> = 20V, I <sub>i</sub> = 60mA, P <sub>i</sub> = 0.13W, C <sub>i</sub> = 250nF & L <sub>i</sub> = 350μH
T-ETF-D-IEC	Ex ia IIC T6 Gb (-20°C ≤ T <sub>a</sub> ≤ +55°C) Ex tb IIIC T85°C Db (-20°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T5 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T100°C Db (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 24V, I <sub>i</sub> = 100mA, P <sub>i</sub> = 0.75W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 80nF & L <sub>i</sub> = 110μH
T-ATF-D-IEC	Ex ia IIC T6 Gb (-20°C ≤ T <sub>a</sub> ≤ +56°C) Ex tb IIIC T85°C Db (-20°C ≤ T <sub>a</sub> ≤ +56°C) Or Ex ia IIC T5 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T100°C Db (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 0.8W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0.5mH Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 80nF & L <sub>i</sub> = 110μH
T-PTF-D-IEC	Ex ia IIC T6 Gb (-20°C ≤ T <sub>a</sub> ≤ +40°C) Ex tb IIIC T85°C Db (-20°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 1nF & L <sub>i</sub> = 10μH Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 80nF & L <sub>i</sub> = 110μH
T-RTF-D-IEC	Ex ia IIC T6 Gb (-20°C ≤ T <sub>a</sub> ≤ +60°C) Ex tb IIIC T85°C Db (-20°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ia IIC T5 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T100°C Db (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 1.0W, C <sub>i</sub> = 3.6nF & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 80nF & L <sub>i</sub> = 110μH
T-PFF-D-IEC	Ex ia IIC T6 Gb (-20°C ≤ T <sub>a</sub> ≤ +40°C) Ex tb IIIC T85°C Db (-20°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 80nF & L <sub>i</sub> = 110μH
T-PLF-D-IEC	Ex ib IIC T6 Gb (-20°C ≤ T <sub>a</sub> ≤ +60°C) Ex tb IIIC T85°C Db (-20°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ib IIC T4 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 17.5V, I <sub>i</sub> = 380mA, P <sub>i</sub> = 5.32W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 80nF & L <sub>i</sub> = 110μH
T-ETLF-D-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +55°C) Ex tb IIIC T85°C Db (-40°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 24V, I <sub>i</sub> = 100mA, P <sub>i</sub> = 0.75W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 150nF & L <sub>i</sub> = 150μH
T-ATLF-D-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +56°C) Ex tb IIIC T85°C Db IP6x (-40°C ≤ T <sub>a</sub> ≤ +56°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db IP6x (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 0.8W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0.5mH Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 150nF & L <sub>i</sub> = 150μH
T-PTLF-D-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +40°C) Ex tb IIIC T85°C Db (-40°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 1nF & L <sub>i</sub> = 10μH Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 150nF & L <sub>i</sub> = 150μH
T-RTLF-D-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +60°C) Ex tb IIIC T85°C Db (-40°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 1.0W, C <sub>i</sub> = 3.6nF & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 150nF & L <sub>i</sub> = 150μH
T-PFLF-D-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +40°C) Ex tb IIIC T85°C Db (-40°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 150nF & L <sub>i</sub> = 150μH

Model Number	Certification Code(s)	Input Parameters
T-PLLF-D-IEC	Ex ib IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +60°C) Ex tb IIIC T85°C Db (-40°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ib IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 17.5V, I <sub>i</sub> = 380mA, P <sub>i</sub> = 5.32W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 150nF & L <sub>i</sub> = 150μH

**Table 2: Certification Code & Input Parameters – Gas only Certified Models**

Model Number	Certification Code(s)	Input Parameters
T-ET-G-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T5 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 24V, I <sub>i</sub> = 100mA, P <sub>i</sub> = 0.75W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0
T-AT-G-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +56°C) Or Ex ia IIC T5 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 0.8W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0.5mH
T-PT-G-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 1nF & L <sub>i</sub> = 10μH
T-RT-G-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ia IIC T5 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 1.0W, C <sub>i</sub> = 3.6nF & L <sub>i</sub> = 0
T-PF-G-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH
T-PL-G-IEC	Ex ib IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ib IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 17.5V, I <sub>i</sub> = 380mA, P <sub>i</sub> = 5.32W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH
T-ETM-G-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T5 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 24V, I <sub>i</sub> = 100mA, P <sub>i</sub> = 0.75W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0 Volt Free Contacts: U <sub>i</sub> = 28V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 1.3W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-ATM-G-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +56°C) Or Ex ia IIC T5 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 0.8W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0.5mH Volt Free Contacts: U <sub>i</sub> = 28V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 1.3W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-PTM-G-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 1nF & L <sub>i</sub> = 10μH Volt Free Contacts: U <sub>i</sub> = 28V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 1.3W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-RTM-G-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ia IIC T5 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 1.0W, C <sub>i</sub> = 3.6nF & L <sub>i</sub> = 0 Volt Free Contacts: U <sub>i</sub> = 28V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 1.3W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-PFM-G-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH Volt Free Contacts: U <sub>i</sub> = 28V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 1.3W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-PLM-G-IEC	Ex ib IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ib IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 17.5V, I <sub>i</sub> = 380mA, P <sub>i</sub> = 5.32W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH Volt Free Contacts: U <sub>i</sub> = 28V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 1.3W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-R-GT4-IEC	Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-R-GT6-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T5 Gb (-40°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.19W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-RM-GT4-IEC	Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Volt Free Contacts: U <sub>i</sub> = 28V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 1.3W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-RM-GT6-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T5 Gb (-40°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.19W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Volt Free Contacts: U <sub>i</sub> = 28V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 1.3W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0
T-RP-GT4-IEC	Ex ia IIC T4 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 16V, I <sub>i</sub> = 52mA, P <sub>i</sub> = 0.16W, C <sub>i</sub> = 100nF & L <sub>i</sub> = 250μH

Model Number	Certification Code(s)	Input Parameters
T-RP-GT6-IEC	Ex ia IIC T6 Gb (-20°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T5 Gb (-20°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T4 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.19W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 16V, I <sub>i</sub> = 52mA, P <sub>i</sub> = 0.16W, C <sub>i</sub> = 100nF & L <sub>i</sub> = 250µH
T-RT-GT4-IEC	Ex ia IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 20V, I <sub>i</sub> = 60mA, P <sub>i</sub> = 0.13W, C <sub>i</sub> = 250nF & L <sub>i</sub> = 350µH
T-RT-GT6-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T5 Gb (-25°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.19W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 20V, I <sub>i</sub> = 60mA, P <sub>i</sub> = 0.13W, C <sub>i</sub> = 250nF & L <sub>i</sub> = 350µH
T-RF-GT4-IEC	Ex ia IIC T4 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 80nF & L <sub>i</sub> = 110µH
T-RF-GT6-IEC	Ex ia IIC T6 Gb (-20°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T5 Gb (-20°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T4 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.19W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 80nF & L <sub>i</sub> = 110µH
T-RLF-GT4-IEC	Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 150nF & L <sub>i</sub> = 150µH
T-RLF-GT6-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Potentiometer: U <sub>i</sub> = 28V, P <sub>i</sub> = 0.19W, C <sub>i</sub> = 0 & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 150nF & L <sub>i</sub> = 150µH
T-ETP-G-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +45°C) Or Ex ia IIC T5 Gb (-25°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ia IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 24V, I <sub>i</sub> = 100mA, P <sub>i</sub> = 0.75W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 16V, I <sub>i</sub> = 52mA, P <sub>i</sub> = 0.16W, C <sub>i</sub> = 100nF & L <sub>i</sub> = 250µH
T-ATP-G-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +45°C) Or Ex ia IIC T5 Gb (-25°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ia IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 0.8W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0.5mH Proximity Sensors: U <sub>i</sub> = 16V, I <sub>i</sub> = 52mA, P <sub>i</sub> = 0.16W, C <sub>i</sub> = 100nF & L <sub>i</sub> = 250µH
T-PTP-G-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 1nF & L <sub>i</sub> = 10µH Proximity Sensors: U <sub>i</sub> = 16V, I <sub>i</sub> = 52mA, P <sub>i</sub> = 0.16W, C <sub>i</sub> = 100nF & L <sub>i</sub> = 250µH
T-RTP-G-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +45°C) Or Ex ia IIC T5 Gb (-25°C ≤ T <sub>a</sub> ≤ +60°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 1.0W, C <sub>i</sub> = 3.6nF & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 16V, I <sub>i</sub> = 52mA, P <sub>i</sub> = 0.16W, C <sub>i</sub> = 100nF & L <sub>i</sub> = 250µH
T-PFP-G-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1µH Proximity Sensors: U <sub>i</sub> = 16V, I <sub>i</sub> = 52mA, P <sub>i</sub> = 0.16W, C <sub>i</sub> = 100nF & L <sub>i</sub> = 250µH
T-PLP-G-IEC	Ex ib IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +45°C) Or Ex ib IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 17.5V, I <sub>i</sub> = 380mA, P <sub>i</sub> = 5.32W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1µH Proximity Sensors: U <sub>i</sub> = 16V, I <sub>i</sub> = 52mA, P <sub>i</sub> = 0.16W, C <sub>i</sub> = 100nF & L <sub>i</sub> = 250µH
T-ETT-G-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T5 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 24V, I <sub>i</sub> = 100mA, P <sub>i</sub> = 0.75W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 20V, I <sub>i</sub> = 60mA, P <sub>i</sub> = 0.13W, C <sub>i</sub> = 250nF & L <sub>i</sub> = 350µH
T-ATT-G-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +56°C) Or Ex ia IIC T5 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 0.8W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0.5mH Proximity Sensors: U <sub>i</sub> = 20V, I <sub>i</sub> = 60mA, P <sub>i</sub> = 0.13W, C <sub>i</sub> = 250nF & L <sub>i</sub> = 350µH
T-PTT-G-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 1nF & L <sub>i</sub> = 10µH Proximity Sensors: U <sub>i</sub> = 20V, I <sub>i</sub> = 60mA, P <sub>i</sub> = 0.13W, C <sub>i</sub> = 250nF & L <sub>i</sub> = 350µH
T-RTT-G-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ia IIC T5 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 1.0W, C <sub>i</sub> = 3.6nF & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 20V, I <sub>i</sub> = 60mA, P <sub>i</sub> = 0.13W, C <sub>i</sub> = 250nF & L <sub>i</sub> = 350µH

Model Number	Certification Code(s)	Input Parameters
T-PFT-G-IEC	Ex ia IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH Proximity Sensors: U <sub>i</sub> = 20V, I <sub>i</sub> = 60mA, P <sub>i</sub> = 0.13W, C <sub>i</sub> = 250nF & L <sub>i</sub> = 350μH
T-PLT-G-IEC	Ex ib IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ia IIC T4 Gb (-25°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 17.5V, I <sub>i</sub> = 380mA, P <sub>i</sub> = 5.32W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH Proximity Sensors: U <sub>i</sub> = 20V, I <sub>i</sub> = 60mA, P <sub>i</sub> = 0.13W, C <sub>i</sub> = 250nF & L <sub>i</sub> = 350μH
T-ETF-G-IEC	Ex ia IIC T6 Gb (-20°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T5 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 24V, I <sub>i</sub> = 100mA, P <sub>i</sub> = 0.75W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 80nF & L <sub>i</sub> = 110μH
T-ATF-G-IEC	Ex ia IIC T6 Gb (-20°C ≤ T <sub>a</sub> ≤ +56°C) Or Ex ia IIC T5 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 0.8W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0.5mH Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 80nF & L <sub>i</sub> = 110μH
T-PTF-G-IEC	Ex ia IIC T6 Gb (-20°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 1nF & L <sub>i</sub> = 10μH Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 80nF & L <sub>i</sub> = 110μH
T-RTF-G-IEC	Ex ia IIC T6 Gb (-20°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ia IIC T5 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 1.0W, C <sub>i</sub> = 3.6nF & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 80nF & L <sub>i</sub> = 110μH
T-PFF-G-IEC	Ex ia IIC T6 Gb (-20°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 80nF & L <sub>i</sub> = 110μH
T-PLF-G-IEC	Ex ib IIC T6 Gb (-20°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ib IIC T4 Gb (-20°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 17.5V, I <sub>i</sub> = 380mA, P <sub>i</sub> = 5.32W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 80nF & L <sub>i</sub> = 110μH
T-ETLF-G-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +55°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 24V, I <sub>i</sub> = 100mA, P <sub>i</sub> = 0.75W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 150nF & L <sub>i</sub> = 150μH
T-ATLF-G-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +56°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 0.8W, C <sub>i</sub> = 5nF & L <sub>i</sub> = 0.5mH Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 150nF & L <sub>i</sub> = 150μH
T-PTLF-G-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 1nF & L <sub>i</sub> = 10μH Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 150nF & L <sub>i</sub> = 150μH
T-RTLF-G-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 130mA, P <sub>i</sub> = 1.0W, C <sub>i</sub> = 3.6nF & L <sub>i</sub> = 0 Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 150nF & L <sub>i</sub> = 150μH
T-PFLF-G-IEC	Ex ia IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +40°C) Or Ex ia IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 30V, I <sub>i</sub> = 120mA, P <sub>i</sub> = 0.84W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 150nF & L <sub>i</sub> = 150μH
T-PLLF-G-IEC	Ex ib IIC T6 Gb (-40°C ≤ T <sub>a</sub> ≤ +60°C) Or Ex ib IIC T4 Gb (-40°C ≤ T <sub>a</sub> ≤ +70°C)	Transmitter: U <sub>i</sub> = 17.5V, I <sub>i</sub> = 380mA, P <sub>i</sub> = 5.32W, C <sub>i</sub> = 2nF & L <sub>i</sub> = 1μH Proximity Sensors: U <sub>i</sub> = 15V, I <sub>i</sub> = 50mA, P <sub>i</sub> = 0.12W, C <sub>i</sub> = 150nF & L <sub>i</sub> = 150μH

**Table 3: Proximity Switches / Sensors & Transmitters Certification Details**

Model Code(s)	Proximity Switches/Sensors & Transmitter	IECEX Certificate No.	Standards
T-**P*-IEC	Type 3 Pepperl and Fuchs Proximity Switches / Sensors	IECEX PTB 11.0021X	IEC 60079-0: 2004 Ed. 4 IEC 60079-11: 2006 Ed. 5 IEC 60079-26: 2006 Ed. 2
		IECEX PTB 11.0091X	IEC 60079-0: 2011 Ed. 6 IEC 60079-11: 2006 Ed. 5 IEC 60079-26: 2006 Ed. 2
T-**F*-IEC	IFM Proximity Switches / Sensors	IECEX BVS 06.0003	IEC 60079-0: 2011 Ed. 6 IEC 60079-11: 2011 Ed. 6 IEC 60079-26: 2006 Ed. 2
T-**LF*-IEC	-40°C Low Ambient Temperature IFM Proximity Switches / Sensors	IECEX BVS 09.0016	IEC 60079-0: 2011 Ed. 6 IEC 60079-11: 2011 Ed. 6 IEC 60079-26: 2006 Ed. 2
T-**T*-IEC	Hans Turck GmbH Proximity Switches / Sensors	IECEX KEM 06.0036X	IEC 60079-0: 2011 Ed. 6 IEC 60079-11: 2011 Ed. 6 IEC 60079-26: 2006 Ed. 2
T-PF***-IEC	-40°C Low Ambient Temperature PR Electronics Transmitter	IECEX BVS 12.0035X	IEC 60079-0: 2011 Ed. 6 IEC 60079-11: 2011 Ed. 6
T-PL***-IEC	-40°C Low Ambient Temperature PR Electronics FISCO 'ib' Transmitter	IECEX BVS 12.0035X	IEC 60079-0: 2011 Ed. 6 IEC 60079-11: 2011 Ed. 6
T-ET***-IEC	Endress & Hauser Transmitter	IECEX PTB 08.0001	IEC 60079-0: 2004 Ed. 4 IEC 60079-11: 2006 Ed. 5 IEC 60079-26: 2004 Ed. 1
T-AT***-IEC	ABB Automation Product GmbH Transmitter	IECEX PTB 09.0014X	IEC 60079-0: 2011 Ed. 6 IEC 60079-11: 2011 Ed. 6
T-PT***-IEC	PR Electronics Transmitter	IECEX KEM 10.0083X	IEC 60079-0: 2011 Ed. 6 IEC 60079-11: 2011 Ed. 6 IEC 60079-26: 2006 Ed. 2
		IECEX DEK 13.0036X	IEC 60079-0: 2011 Ed. 6 IEC 60079-11: 2011 Ed. 6 IEC 60079-26: 2006 Ed. 2
T-RT***-IEC	Rosemount Transmitter	IECEX BAS 07. 0086X	IEC 60079-0: 2011 Ed. 6 IEC 60079-11: 2011 Ed. 6
		IECEX BAS 08.0011X	IEC 60079-0: 2011 Ed. 6 IEC 60079-11: 2011 Ed. 6

Where the above sensors and transmitter are certified to older editions of the standards than those listed for the K5L & K7L Series K4-20 Transmitter, the differences between the editions of the standards listed have been reviewed and determined to have no technical differences affecting the equipment.