

1 **UK-TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**  
**UKSI 2016:1107 (as amended) – Schedule 3A, Part 1**

3 UK-Type Examination Certificate Number: **BAS21UKEX0673X**

4 Product: **K5L and K7L Series K4-20 Position Transmitter**

5 Manufacturer: **Topworx Incorporated**

6 Address: **3300 Fern Valley Road, Louisville, Kentucky, 40213 United States of America**

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 SGS Baseefa, Approved Body number 1180, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.

The examination and test results are recorded in confidential Report No. **GB/SGS/ExTR23.105/00**

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

**EN IEC 60079-0: 2018 EN 60079-11: 2012 EN 60079-31: 2014**

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign “X” is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This UK-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following :

 See Certificate Schedule

SGS Baseefa Customer Reference No. **2191**

Project File No. **21/0357**


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R S SINCLAIR  
TECHNICAL MANAGER  
On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number BAS21UKEX0673X**

15 **Description of Product**

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 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.

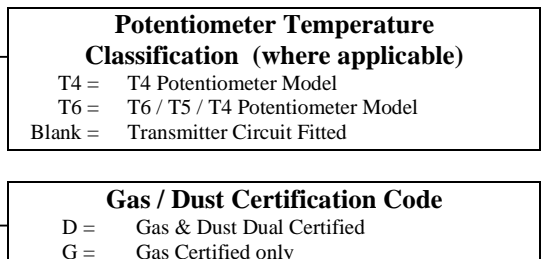
Models of the equipment with a 'D' in the model number are gas and dust certified. The installation of the external connections and plugging of the unused entries in these variants must be carried out using appropriately certified IP6X cable glands and blanking plugs.

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.

The K7L & K5L Series K4-20 Position Transmitter are available in the following dual certified IECEx & ATEX/UKEX configurations. The following tables defines the models available and their associated certification codes and input parameters:

**Dual ATEX / UKEX / IECEx Certified Model Range**

T-ET-DT4-IEC



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

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	$\text{Ex}$ II 2GD 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	$\text{Ex}$ II 2GD 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	$\text{Ex}$ II 2GD 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	$\text{Ex}$ II 2GD 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	$\text{Ex}$ II 2GD 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

Model Number	Certification Code(s)	Input Parameters
T-PL-D-IEC	$\langle \text{Ex} \rangle$ II 2GD 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	$\langle \text{Ex} \rangle$ II 2GD 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	$\langle \text{Ex} \rangle$ II 2GD 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 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	$\langle \text{Ex} \rangle$ II 2GD 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 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	$\langle \text{Ex} \rangle$ II 2GD 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 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	$\langle \text{Ex} \rangle$ II 2GD 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	$\langle \text{Ex} \rangle$ II 2GD 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
T-R-DT4-IEC	$\langle \text{Ex} \rangle$ II 2GD 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	$\langle \text{Ex} \rangle$ II 2GD 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

Model Number	Certification Code(s)	Input Parameters
T-RM-DT4-IEC	$\text{Ex}$ II 2GD Ex ia IIC T4 Gb ( $-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ ) Ex tb IIIC T135°C Db ( $-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Potentiometer: $U_i = 28\text{V}$ , $P_i = 0.84\text{W}$ , $C_i = 0$ & $L_i = 0$ Volt Free Contacts: $U_i = 28\text{V}$ , $I_i = 120\text{mA}$ , $P_i = 1.3\text{W}$ , $C_i = 0$ & $L_i = 0$
T-RM-DT6-IEC	$\text{Ex}$ II 2GD Ex ia IIC T6 Gb ( $-40^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$ ) Ex tb IIIC T85°C Db ( $-40^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$ ) Or Ex ia IIC T5 Gb ( $-40^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$ ) Ex tb IIIC T100°C Db ( $-40^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$ ) Or Ex ia IIC T4 Gb ( $-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ ) Ex tb IIIC T135°C Db ( $-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Potentiometer: $U_i = 28\text{V}$ , $P_i = 0.19\text{W}$ , $C_i = 0$ & $L_i = 0$ Volt Free Contacts: $U_i = 28\text{V}$ , $I_i = 120\text{mA}$ , $P_i = 1.3\text{W}$ , $C_i = 0$ & $L_i = 0$
T-RP-DT4-IEC	$\text{Ex}$ II 2GD Ex ia IIC T4 Gb ( $-20^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ ) Ex tb IIIC T135°C Db ( $-20^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Potentiometer: $U_i = 28\text{V}$ , $P_i = 0.84\text{W}$ , $C_i = 0$ & $L_i = 0$ Proximity Sensors: $U_i = 16\text{V}$ , $I_i = 52\text{mA}$ , $P_i = 0.16\text{W}$ , $C_i = 100\text{nF}$ & $L_i = 250\mu\text{H}$
T-RP-DT6-IEC	$\text{Ex}$ II 2GD Ex ia IIC T6 Gb ( $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$ ) Ex tb IIIC T85°C Db ( $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$ ) Or Ex ia IIC T5 Gb ( $-20^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$ ) Ex tb IIIC T100°C Db ( $-20^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$ ) Or Ex ia IIC T4 Gb ( $-20^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ ) Ex tb IIIC T135°C Db ( $-20^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Potentiometer: $U_i = 28\text{V}$ , $P_i = 0.19\text{W}$ , $C_i = 0$ & $L_i = 0$ Proximity Sensors: $U_i = 16\text{V}$ , $I_i = 52\text{mA}$ , $P_i = 0.16\text{W}$ , $C_i = 100\text{nF}$ & $L_i = 250\mu\text{H}$
T-RT-DT4-IEC	$\text{Ex}$ II 2GD Ex ia IIC T4 Gb ( $-25^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ ) Ex tb IIIC T135°C Db ( $-25^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Potentiometer: $U_i = 28\text{V}$ , $P_i = 0.84\text{W}$ , $C_i = 0$ & $L_i = 0$ Proximity Sensors: $U_i = 20\text{V}$ , $I_i = 60\text{mA}$ , $P_i = 0.13\text{W}$ , $C_i = 250\text{nF}$ & $L_i = 350\mu\text{H}$
T-RT-DT6-IEC	$\text{Ex}$ II 2GD Ex ia IIC T6 Gb ( $-25^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$ ) Ex tb IIIC T85°C Db ( $-25^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$ ) Or Ex ia IIC T5 Gb ( $-25^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$ ) Ex tb IIIC T100°C Db ( $-25^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$ ) Or Ex ia IIC T4 Gb ( $-25^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ ) Ex tb IIIC T135°C Db ( $-25^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Potentiometer: $U_i = 28\text{V}$ , $P_i = 0.19\text{W}$ , $C_i = 0$ & $L_i = 0$ Proximity Sensors: $U_i = 20\text{V}$ , $I_i = 60\text{mA}$ , $P_i = 0.13\text{W}$ , $C_i = 250\text{nF}$ & $L_i = 350\mu\text{H}$
T-RF-DT4-IEC	$\text{Ex}$ II 2GD Ex ia IIC T4 Gb ( $-20^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ ) Ex tb IIIC T135°C Db ( $-20^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Potentiometer: $U_i = 28\text{V}$ , $P_i = 0.84\text{W}$ , $C_i = 0$ & $L_i = 0$ Proximity Sensors: $U_i = 15\text{V}$ , $I_i = 50\text{mA}$ , $P_i = 0.12\text{W}$ , $C_i = 80\text{nF}$ & $L_i = 110\mu\text{H}$
T-RF-DT6-IEC	$\text{Ex}$ II 2GD Ex ia IIC T6 Gb ( $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$ ) Ex tb IIIC T85°C Db ( $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$ ) Or Ex ia IIC T5 Gb ( $-20^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$ ) Ex tb IIIC T100°C Db ( $-20^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$ ) Or Ex ia IIC T4 Gb ( $-20^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ ) Ex tb IIIC T135°C Db ( $-25^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Potentiometer: $U_i = 28\text{V}$ , $P_i = 0.19\text{W}$ , $C_i = 0$ & $L_i = 0$ Proximity Sensors: $U_i = 15\text{V}$ , $I_i = 50\text{mA}$ , $P_i = 0.12\text{W}$ , $C_i = 80\text{nF}$ & $L_i = 110\mu\text{H}$
T-RLF-DT4-IEC	$\text{Ex}$ II 2GD Ex ia IIC T4 Gb ( $-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ ) Ex tb IIIC T135°C Db ( $-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Potentiometer: $U_i = 28\text{V}$ , $P_i = 0.84\text{W}$ , $C_i = 0$ & $L_i = 0$ Proximity Sensors: $U_i = 15\text{V}$ , $I_i = 50\text{mA}$ , $P_i = 0.12\text{W}$ , $C_i = 150\text{nF}$ & $L_i = 150\mu\text{H}$

Model Number	Certification Code(s)	Input Parameters
T-RLF-DT6-IEC	<p>⊕ II 2GD 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)</p>	<p>Potentiometer: U<sub>i</sub> = 28V, P<sub>i</sub> = 0.19W, C<sub>i</sub> = 0 &amp; 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 &amp; L<sub>i</sub> = 150μH</p>
T-ETP-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 24V, I<sub>i</sub> = 100mA, P<sub>i</sub> = 0.75W, C<sub>i</sub> = 5nF &amp; 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 &amp; L<sub>i</sub> = 250μH</p>
T-ATP-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 30V, I<sub>i</sub> = 130mA, P<sub>i</sub> = 0.8W, C<sub>i</sub> = 5nF &amp; 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 &amp; L<sub>i</sub> = 250μH</p>
T-PTP-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 30V, I<sub>i</sub> = 120mA, P<sub>i</sub> = 0.84W, C<sub>i</sub> = 1nF &amp; 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 &amp; L<sub>i</sub> = 250μH</p>
T-RTP-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 30V, I<sub>i</sub> = 130mA, P<sub>i</sub> = 1.0W, C<sub>i</sub> = 3.6nF &amp; 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 &amp; L<sub>i</sub> = 250μH</p>
T-PFP-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 30V, I<sub>i</sub> = 120mA, P<sub>i</sub> = 0.84W, C<sub>i</sub> = 2nF &amp; 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 &amp; L<sub>i</sub> = 250μH</p>
T-PLP-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 17.5V, I<sub>i</sub> = 380mA, P<sub>i</sub> = 5.32W, C<sub>i</sub> = 2nF &amp; 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 &amp; L<sub>i</sub> = 250μH</p>
T-ETT-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 24V, I<sub>i</sub> = 100mA, P<sub>i</sub> = 0.75W, C<sub>i</sub> = 5nF &amp; 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 &amp; L<sub>i</sub> = 350μH</p>

Model Number	Certification Code(s)	Input Parameters
T-ATT-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 30V, I<sub>i</sub> = 130mA, P<sub>i</sub> = 0.8W, C<sub>i</sub> = 5nF &amp; 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 &amp; L<sub>i</sub> = 350μH</p>
T-PTT-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 30V, I<sub>i</sub> = 120mA, P<sub>i</sub> = 0.84W, C<sub>i</sub> = 1nF &amp; 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 &amp; L<sub>i</sub> = 350μH</p>
T-RTT-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 30V, I<sub>i</sub> = 130mA, P<sub>i</sub> = 1.0W, C<sub>i</sub> = 3.6nF &amp; 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 &amp; L<sub>i</sub> = 350μH</p>
T-PFT-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 30V, I<sub>i</sub> = 120mA, P<sub>i</sub> = 0.84W, C<sub>i</sub> = 2nF &amp; 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 &amp; L<sub>i</sub> = 350μH</p>
T-PLT-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 17.5V, I<sub>i</sub> = 380mA, P<sub>i</sub> = 5.32W, C<sub>i</sub> = 2nF &amp; 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 &amp; L<sub>i</sub> = 350μH</p>
T-ETF-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 24V, I<sub>i</sub> = 100mA, P<sub>i</sub> = 0.75W, C<sub>i</sub> = 5nF &amp; 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 &amp; L<sub>i</sub> = 110μH</p>
T-ATF-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 30V, I<sub>i</sub> = 130mA, P<sub>i</sub> = 0.8W, C<sub>i</sub> = 5nF &amp; 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 &amp; L<sub>i</sub> = 110μH</p>
T-PTF-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 30V, I<sub>i</sub> = 120mA, P<sub>i</sub> = 0.84W, C<sub>i</sub> = 1nF &amp; 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 &amp; L<sub>i</sub> = 110μH</p>
T-RTF-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 30V, I<sub>i</sub> = 130mA, P<sub>i</sub> = 1.0W, C<sub>i</sub> = 3.6nF &amp; 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 &amp; L<sub>i</sub> = 110μH</p>

Model Number	Certification Code(s)	Input Parameters
T-PFF-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 30V, I<sub>i</sub> = 120mA, P<sub>i</sub> = 0.84W, C<sub>i</sub> = 2nF &amp; 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 &amp; L<sub>i</sub> = 110μH</p>
T-PLF-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 17.5V, I<sub>i</sub> = 380mA, P<sub>i</sub> = 5.32W, C<sub>i</sub> = 2nF &amp; 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 &amp; L<sub>i</sub> = 110μH</p>
T-ETLF-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 24V, I<sub>i</sub> = 100mA, P<sub>i</sub> = 0.75W, C<sub>i</sub> = 5nF &amp; 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 &amp; L<sub>i</sub> = 150μH</p>
T-ATLF-D-IEC	<p>⊕ II 2GD 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 T4 Gb (-40°C ≤ T<sub>a</sub> ≤ +70°C) Ex tb IIIC T135°C Db (-40°C ≤ T<sub>a</sub> ≤ +70°C)</p>	<p>Transmitter: U<sub>i</sub> = 30V, I<sub>i</sub> = 130mA, P<sub>i</sub> = 0.8W, C<sub>i</sub> = 5nF &amp; 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 &amp; L<sub>i</sub> = 150μH</p>
T-PTLF-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 30V, I<sub>i</sub> = 120mA, P<sub>i</sub> = 0.84W, C<sub>i</sub> = 1nF &amp; 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 &amp; L<sub>i</sub> = 150μH</p>
T-RTLF-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 30V, I<sub>i</sub> = 130mA, P<sub>i</sub> = 1.0W, C<sub>i</sub> = 3.6nF &amp; 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 &amp; L<sub>i</sub> = 150μH</p>
T-PFLF-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 30V, I<sub>i</sub> = 120mA, P<sub>i</sub> = 0.84W, C<sub>i</sub> = 2nF &amp; 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 &amp; L<sub>i</sub> = 150μH</p>
T-PLLF-D-IEC	<p>⊕ II 2GD 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)</p>	<p>Transmitter: U<sub>i</sub> = 17.5V, I<sub>i</sub> = 380mA, P<sub>i</sub> = 5.32W, C<sub>i</sub> = 2nF &amp; 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 &amp; L<sub>i</sub> = 150μH</p>

Table 2: Certification Code & Input Parameters – Gas only Certified Models with no Wireless HART Adapter fitted

Model Number	Certification Code(s)	Input Parameters
T-ET-G-IEC	<p>⊕ II 2G 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)</p>	<p>Transmitter: U<sub>i</sub> = 24V, I<sub>i</sub> = 100mA, P<sub>i</sub> = 0.75W, C<sub>i</sub> = 5nF &amp; L<sub>i</sub> = 0</p>



Model Number	Certification Code(s)	Input Parameters
T-AT-G-IEC	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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

Model Number	Certification Code(s)	Input Parameters
T-RM-GT6-IEC	$\langle \text{Ex} \rangle$ II 2G Ex ia IIC T6 Gb ( $-40^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$ ) Or Ex ia IIC T5 Gb ( $-40^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$ ) Or Ex ia IIC T4 Gb ( $-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Potentiometer: $U_i = 28\text{V}$ , $P_i = 0.19\text{W}$ , $C_i = 0$ & $L_i = 0$ Volt Free Contacts: $U_i = 28\text{V}$ , $I_i = 120\text{mA}$ , $P_i = 1.3\text{W}$ , $C_i = 0$ & $L_i = 0$
T-RP-GT4-IEC	$\langle \text{Ex} \rangle$ II 2G Ex ia IIC T4 Gb ( $-20^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Potentiometer: $U_i = 28\text{V}$ , $P_i = 0.84\text{W}$ , $C_i = 0$ & $L_i = 0$ Proximity Sensors: $U_i = 16\text{V}$ , $I_i = 52\text{mA}$ , $P_i = 0.16\text{W}$ , $C_i = 100\text{nF}$ & $L_i = 250\mu\text{H}$
T-RP-GT6-IEC	$\langle \text{Ex} \rangle$ II 2G Ex ia IIC T6 Gb ( $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$ ) Or Ex ia IIC T5 Gb ( $-20^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$ ) Or Ex ia IIC T4 Gb ( $-20^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Potentiometer: $U_i = 28\text{V}$ , $P_i = 0.19\text{W}$ , $C_i = 0$ & $L_i = 0$ Proximity Sensors: $U_i = 16\text{V}$ , $I_i = 52\text{mA}$ , $P_i = 0.16\text{W}$ , $C_i = 100\text{nF}$ & $L_i = 250\mu\text{H}$
T-RT-GT4-IEC	$\langle \text{Ex} \rangle$ II 2G Ex ia IIC T4 Gb ( $-25^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Potentiometer: $U_i = 28\text{V}$ , $P_i = 0.84\text{W}$ , $C_i = 0$ & $L_i = 0$ Proximity Sensors: $U_i = 20\text{V}$ , $I_i = 60\text{mA}$ , $P_i = 0.13\text{W}$ , $C_i = 250\text{nF}$ & $L_i = 350\mu\text{H}$
T-RT-GT6-IEC	$\langle \text{Ex} \rangle$ II 2G Ex ia IIC T6 Gb ( $-25^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$ ) Or Ex ia IIC T5 Gb ( $-25^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$ ) Or Ex ia IIC T4 Gb ( $-25^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Potentiometer: $U_i = 28\text{V}$ , $P_i = 0.19\text{W}$ , $C_i = 0$ & $L_i = 0$ Proximity Sensors: $U_i = 20\text{V}$ , $I_i = 60\text{mA}$ , $P_i = 0.13\text{W}$ , $C_i = 250\text{nF}$ & $L_i = 350\mu\text{H}$
T-RF-GT4-IEC	$\langle \text{Ex} \rangle$ II 2G Ex ia IIC T4 Gb ( $-20^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Potentiometer: $U_i = 28\text{V}$ , $P_i = 0.84\text{W}$ , $C_i = 0$ & $L_i = 0$ Proximity Sensors: $U_i = 15\text{V}$ , $I_i = 50\text{mA}$ , $P_i = 0.12\text{W}$ , $C_i = 80\text{nF}$ & $L_i = 110\mu\text{H}$
T-RF-GT6-IEC	$\langle \text{Ex} \rangle$ II 2G Ex ia IIC T6 Gb ( $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$ ) Or Ex ia IIC T5 Gb ( $-20^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$ ) Or Ex ia IIC T4 Gb ( $-20^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Potentiometer: $U_i = 28\text{V}$ , $P_i = 0.19\text{W}$ , $C_i = 0$ & $L_i = 0$ Proximity Sensors: $U_i = 15\text{V}$ , $I_i = 50\text{mA}$ , $P_i = 0.12\text{W}$ , $C_i = 80\text{nF}$ & $L_i = 110\mu\text{H}$
T-RLF-GT4-IEC	$\langle \text{Ex} \rangle$ II 2G Ex ia IIC T4 Gb ( $-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Potentiometer: $U_i = 28\text{V}$ , $P_i = 0.84\text{W}$ , $C_i = 0$ & $L_i = 0$ Proximity Sensors: $U_i = 15\text{V}$ , $I_i = 50\text{mA}$ , $P_i = 0.12\text{W}$ , $C_i = 150\text{nF}$ & $L_i = 150\mu\text{H}$
T-RLF-GT6-IEC	$\langle \text{Ex} \rangle$ II 2G Ex ia IIC T6 Gb ( $-40^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$ ) Or Ex ia IIC T4 Gb ( $-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Potentiometer: $U_i = 28\text{V}$ , $P_i = 0.19\text{W}$ , $C_i = 0$ & $L_i = 0$ Proximity Sensors: $U_i = 15\text{V}$ , $I_i = 50\text{mA}$ , $P_i = 0.12\text{W}$ , $C_i = 150\text{nF}$ & $L_i = 150\mu\text{H}$
T-ETP-G-IEC	$\langle \text{Ex} \rangle$ II 2G Ex ia IIC T6 Gb ( $-25^{\circ}\text{C} \leq T_a \leq +45^{\circ}\text{C}$ ) Or Ex ia IIC T5 Gb ( $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$ ) Or Ex ia IIC T4 Gb ( $-25^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Transmitter: $U_i = 24\text{V}$ , $I_i = 100\text{mA}$ , $P_i = 0.75\text{W}$ , $C_i = 5\text{nF}$ & $L_i = 0$ Proximity Sensors: $U_i = 16\text{V}$ , $I_i = 52\text{mA}$ , $P_i = 0.16\text{W}$ , $C_i = 100\text{nF}$ & $L_i = 250\mu\text{H}$
T-ATP-G-IEC	$\langle \text{Ex} \rangle$ II 2G Ex ia IIC T6 Gb ( $-25^{\circ}\text{C} \leq T_a \leq +45^{\circ}\text{C}$ ) Or Ex ia IIC T5 Gb ( $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$ ) Or Ex ia IIC T4 Gb ( $-25^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ )	Transmitter: $U_i = 30\text{V}$ , $I_i = 130\text{mA}$ , $P_i = 0.8\text{W}$ , $C_i = 5\text{nF}$ & $L_i = 0.5\text{mH}$ Proximity Sensors: $U_i = 16\text{V}$ , $I_i = 52\text{mA}$ , $P_i = 0.16\text{W}$ , $C_i = 100\text{nF}$ & $L_i = 250\mu\text{H}$

Model Number	Certification Code(s)	Input Parameters
T-PTP-G-IEC	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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
T-PFT-G-IEC	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G Ex ib IIC T6 Gb (-25°C ≤ T <sub>a</sub> ≤ +60°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> = 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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	$\langle \text{Ex} \rangle$ II 2G 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

Model Number	Certification Code(s)	Input Parameters
T-RTF-G-IEC	Ⓔ II 2G 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	Ⓔ II 2G 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	Ⓔ II 2G 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	Ⓔ II 2G 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	Ⓔ II 2G 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	Ⓔ II 2G 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	Ⓔ II 2G 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	Ⓔ II 2G 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	Ⓔ II 2G 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 and Transmitters Certification Details

Model Code	Proximity Switches/Sensors, Transmitter or Wireless HART Adapter	ATEX Certificate No(s).
T-**P-**-IEC	Type 3 Pepperl + Fuchs Proximity Switches / Sensors	PTB 99 ATEX 2219X PTB 00 ATEX 2032X
T-**F-**-IEC	IFM Proximity Switches / Sensors	PTB 01 ATEX 2191
T-**LF-**-IEC	-40°C Low Ambient Temperature IFM Proximity Switches / Sensors	BVS 08 ATEX E 026
T-**T-**-IEC	Hans Turck GmbH Proximity Switches / Sensors	KEMA 02 ATEX 1090X
T-ET**-**-IEC	Endress & Hauser Transmitter	PTB 01 ATEX 2013 PTB 04 ATEX 2053 PTB 07 ATEX 2056
T-AT**-**-IEC	ABB Automation Product GmbH Transmitter	PTB 05 ATEX 2017X
T-PT**-**-IEC	PR Electronics Transmitter	KEMA 03 ATEX 1535 KEMA 03 ATEX 1537
T-RT**-**-IEC	Rosemount Transmitter	Baseefa03ATEX0030X Baseefa08ATEX0030X

Model Code	Proximity Switches/Sensors, Transmitter or Wireless HART Adapter	ATEX Certificate No(s).
T-PF**-*-IEC	-40°C Low Ambient Temperature PR Electronics Transmitter	KEMA 02 ATEX 1318
T-PL**-*-IEC	-40°C Low Ambient Temperature PR Electronics FISCO 'ib' Transmitter	KEMA 02 ATEX 1318

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### 17 Specific Conditions of Use

- The cable glands used as entries to the enclosure must be suitably certified cable glands to the requirements of EN IEC 60079-0: 2018, including Annex A, with a minimum IP rating of IP6X in order to comply with the requirements of EN 60079-31: 2014.
- Any unused entries must be fitted with a suitably certified blanking plug certified to the requirements of EN IEC 60079-0: 2018 with a minimum IP rating of IP6X in order to comply with the requirements of EN 60079-31: 2014.

### 18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
13	LVD type requirements
14	Overloading of equipment (protection relays, etc.)
21 (1)	External effects
21 (2)	Aggressive substances, etc.

### 19 Drawings and Documents

Number	Sheet	Issue	Date	Description
CERT-ES-09204-1	2 of 14	AA	10/06/2023	K5L/K7L 4-20mA Transmitter – Ex ia Certification Label
CERT-ES-09204-1	3 of 14	AA	10/06/2023	K5L/K7L 4-20mA Transmitter – Ex ia Certification Label
CERT-ES-09204-1	4 of 14	AA	10/06/2023	K5L/K7L 4-20mA Transmitter – Ex ia Certification Label
CERT-ES-09204-1	5 of 14	AA	10/06/2023	K5L/K7L 4-20mA Transmitter – Ex ia Certification Label
CERT-ES-09204-1	7 of 14	AA	10/06/2023	K5L/K7L 4-20mA Transmitter – Ex ia Certification Label
CERT-ES-09204-1	8 of 14	AA	10/06/2023	K5L/K7L 4-20mA Transmitter – Ex ia Certification Label
CERT-ES-09204-1	9 of 14	AA	10/06/2023	K5L/K7L 4-20mA Transmitter – Ex ia Certification Label
CERT-ES-09204-1	10 of 14	AA	10/06/2023	K5L/K7L 4-20mA Transmitter – Ex ia Certification Label

For a full list of drawings refer to Baseefa16ATEX0140X.  
These drawings are also common to Baseefa16ATEX0140X and IECEx BAS 16.0108X.