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

Certificate No.:	**IECEx BVS 15.0119**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2016-02-11)
Date of Issue:	2023-04-26		
Applicant:	**TECTUS Technology GmbH** Lustheide 85 51427 Bergisch Gladbach **Germany**		
Equipment:	**Transponder type TID-**-**********		
Optional accessory:			
Type of Protection:	**Intrinsic Safety "i"**		
Marking:	Ex ia IIC T4 Gb Ex ia IIC T4/T3 Gb Ex ia I Mb Ex ia IIIC T70°C Db Ex ia IIIC T115°C / T120°C / T150°C Db		

Approved for issue on behalf of the IECEx Certification Body: **Deniz Pezzutto**

Position: **Certification Manager**

Signature: (for printed version)

Date: (for printed version) 26.04.2023

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany

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Manufacturer: **TECTUS Technology GmbH**
Lustheide 85
51427 Bergisch Gladbach
Germany

Manufacturing locations:

TECTUS Technology GmbH
Lustheide 85
51427 Bergisch Gladbach
Germany

TECTUS Technology GmbH
Carl-Peschken-Str. 5d
47441 Moers
Germany

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

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 Report:

DE/BVS/ExTR15.0110/01

Quality Assessment Report:

CA/QPS/QAR23.0004/00

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

General product information:
See Annex

Description
The intrinsically safe transponders of type TID-tt-******** are used for the marking of equipment; they can be e.g. vulcanized into conveyor belts and thus serve the purpose of controlling the belt slot or the speed. The transponders are activated by an external magnetic field and then send a response signal.

Technical Parameters

1.	Transponder type TID-TP-********			
	Operating frequency	f	120 to 140	kHz
	Max. radiant power	P	125	mW
2.	Transponder type TID-HF-********			
	Operating frequency	f	13 to 14	MHz
	Max. radiant power	P	156	mW
3.	Transponder type TID-UHF-********			
	Operating frequency	f	800 to 900	MHz
	Max. radiant power	P	156	mW

4. Ambient temperature range

4.1 For transponders type TID-**-********

For temperature class T4 and T70 °C

-45 °C ≤ T_a ≤ +60 °C

4.2 For transponder type TID-**-IS85****

For temperature class T4 and T70 °C

-25 °C ≤ T_a ≤ +50 °C

4.3 For transponder type TID-**-PU****HT

For temperature class T4 and T120 °C

-45 °C ≤ T_a ≤ +110 °C

For temperature class T3 und T150 °C

-45 °C ≤ T_a ≤ +140 °C

4.4 For transponder Type TID-**-PA34**HT

For temperature class T4/T3 und T115 °C

-45 °C ≤ T_a ≤ +105 °C

SPECIFIC CONDITIONS OF USE: NO

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- Some types are omitted
- Change of manufacturer address
- Update of the standard status IEC 60079-0:2018
- The transponder family is extended by the type PA34HT
- The ambient temperature range of type TID-**-IS85**** has changed
- Change of the QAR

Annex:

BVS_15_0119_Tectus_Annex_issue1.pdf

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Certificate No.: **IECEx BVS 15.0119 issue No: 1**
Annex

General product information:

Intrinsically safe transponder type TID-tt-********

For the designation, the letters ‘tt’ and the ******** shall be replaced by the following combinations of letters and numbers:

letters ‘tt’

TP = transponder for a frequency range of 120 to 140 kHz
HF = transponder for a frequency range of 13 to 14 MHz
UHF = transponder for a frequency range of 800 to 900 MHz

For the TP, HF and UHF transponder

Asterisks 1 to 4

3	12.3 x 2.2 x 3 mm	PA6/Ceramics
6	d = 6 mm, h = 2.5 mm	PA6/Ceramics
12	12 x 7 x 3 mm	PA6/Ceramics
17	17.7 x 10.9 x 4.8 mm	PA6/Ceramics
31	31.7 x 12.8 x 5 mm	PA6/Ceramics
51	51 x 36 x 7.5 mm	PA6 GF 50 %
52OM	52 x 43 x 10 mm	PA6 GF 50 %
CL20	d = 20 mm, h = 0.6 mm	Clear disc
CL22	d = 22 mm, h = 0.6 mm	Clear disc
CL30	d = 30 mm, h = 0.6 mm	Clear disc
CL51	d = 51 mm, h = 0.6 mm	Clear disc
CY13	l = 34 mm, d = 9 mm	Attachment
CY22	l = 26 mm, d = 9 mm	Attachment
CY34	l = 31 mm, d = 9 mm	Attachment
EL10	d = 10 mm, h = 6 mm	Epoxy with fiberglass
EL20	d = 20 mm, h = 1 mm	Epoxy disc
EL30	d = 30 mm, h = 1 mm	Epoxy disc
EL50	d = 50 mm, h = 1 mm	Epoxy disc
FO	d = 50.5 mm, h = 7.8 mm	PA6 GF 50 %
GL12	l = 12 mm, d = 2.1 mm	Glass
GL13	l = 13.3 mm, d = 3.15 mm	Glass transponder
GL22	l = 22 mm, d = 4 mm	Glass transponder
GL22PK	d = 24 mm, d = 8 mm	Glass / PEEK
GL34	l = 34 mm, d = 4 mm	Glass transponder
IS85	85.6 x 54 x 0.76 mm	ISO card
LO120	d = 12 mm, h = 2 mm	Logitag
LO160	d = 16 mm, h = 3 mm	Logitag
M24	d = 23 mm, h = 8 mm	PEEK
MT148	148 x 22 x 18 mm^2	long enclosure
ROS	48 x 22 x 11 mm	stainless steel
OT	104 x 21 x 10 mm	PA6 GF 50 %
PA30	d = 30 mm, h = 3 mm	PA6 GF 50 %
PA34	d = 34 mm, h = 6 mm	PA66 / PA66 H
PU30	d = 34 mm, h = 6 mm	PU tag
PU50	d = 50 mm, h = 15 mm	PU tag
PU70	70 x 100 mm, h = 10 mm	PU tag for CO-filter
PU90	d = 90 mm, h = 24 mm	PU tag calotte
VO30	d = 26 mm, h = 4 mm	Volcano
WT20	d = 20 mm, h = 2.15 mm	World tag
WT30	d = 30 mm, h = 2.15 mm	World tag
WT50	d = 50 mm, h = 2.25 mm	World tag
XP	d = 30 mm, h = 8.5 mm	Stainless steel

Asterisks 5 and 6

RW = Read/Write
RO = Read Only

Asterisks 7 and 8

HT = High temperature variant only for PA34, PU30, PU50, PU70 and PU90