



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 TUR 22.0076X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2023-01-23
Applicant: **SAMCON Prozessleittechnik GmbH**
Schillerstrasse 17
35102 Lohra-Altenvers
Germany
Equipment: **liteServer® Series T20**
Optional accessory:
Type of Protection: **db tb**
Marking: Ex db IIC T6 Gb*
Ex db I Mb*
Ex tb IIIC T80°C Db IP68*
* Optional and additional type of protection markings for all types:
The mining certification can be cancelled if required. **
The dust certification can be cancelled if required. **
The explosion group can be downgraded if required. **
The ambient temperature range can be downgraded if required. **
The temperature class/value (gas/dust) can be downgraded if required. **
The marking [op is] can be added for certified emitters**
** See type plate, model key and installation-/user manual!

Approved for issue on behalf of the IECEx
Certification Body:

Christian Mehrhoff

Position:

Assigned certifier

Signature:
(for printed version)



23-01-2023

Date:
(for printed version)

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:

TUV Rheinland Industrie Service GmbH
Am Grauen Stein
51105 Cologne
Germany





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Date of issue: 2023-01-23

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Manufacturer: **SAMCON Prozessleittechnik GmbH**
Schillerstrasse 17
35102 Lohra-Altenvers
Germany

Manufacturing locations: **SAMCON Prozessleittechnik GmbH**
Schillerstrasse 17
35102 Lohra-Altenvers
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 60079-1:2014-06](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

[IEC 60079-28:2015](#) Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
Edition:2

[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 Report:

[DE/TUR/ExTR22.0076/00](#)

Quality Assessment Report:

[DE/BVS/QAR14.0006/06](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

General product information:

The liteServer® is an electrical device that is protected by a pressure-resistant (Ex d) enclosure. The flameproof housings not only make the device flameproof but also robust for a variety of industries and applications. Within the pressure-resistant enclosure, various light radiation sources (LEDs), lenses, reflectors and power electronics with different technical specifications, are installed. Radiation sources include visible light as well as infrared light (NIR) of different illumination cones and light intensities. Accessory components such as PTC heating elements, lenses, reflectors, diffuser, mechanical components, vibration damper and clamps are optional.

The liteServer® Series covers the following products and models:

liteServer® Ex.micro.... T20-VA0.x...

liteServer® Ex.mini.... T20-VA1.x...

liteServer® Ex.universal.... T20-VA2.x...

liteServer® Ex.power.... T20-VA4.x...

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. When installing the liteServer, the requirements of EN/IEC 60079-14 must be applied.
2. All used cable glands and plugs have to be certified.

Annex:

[IECEX_TUR_22.0076X_Attachment.pdf](#)



Attachment to Certificate
IECEX TUR 22.0076X
Revision 0

Attachment to Certificate IECEX TUR 22.0076X

Device: liteServer® Series T20
Type: T20... (details refer to technical data section)
Manufacturer: SAMCON Prozesseleittechnik GmbH
Address: Schillerstraße 17
35102 Lohra- Altenvers, Germany

General product information:

The liteServer® Series T20 is a pressure-resistant (Ex-d) electrical device.

The marking of the equipment shall include the following:

Ex db IIC T6 Gb*

Ex db I Mb*

Ex tb IIIC T80°C Db IP68*

* Optional and additional type of protection markings for all types:

The mining certification can be cancelled if required. **

The dust certification can be cancelled if required. **

The explosion group can be downgraded if required. **

The ambient temperature range can be downgraded if required. **

The temperature class/value (gas/dust) can be downgraded if required. **

The marking [op is] can be added for certified emitters**

** See type plate, model key and installation-/user manual!

Technical data

Supply Voltage:

Model:	Supply Voltage:
T20-VA...:	60V DC / 240V (50/60 Hz) AC



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Maximum Input Power:

...for T6 Temperature Class ($T_{sur} < 85^{\circ}\text{C}$)

Model:	$T_{amb\ max}$			
	40°C	50°C	60°C	70°C
T20-VA0.1...	10,5 W	7,9W	5,3 W	2,6 W
T20-VA0.4...	13,8 W	10,3 W	6,9 W	3,4 W
T20-VA1.1...	17,4 W	13,0 W	8,7 W	4,3 W
T20-VA1.2...	18,2 W	13,6 W	9,1 W	4,5 W
T20-VA2.0...	18,2 W	13,6 W	9,1 W	4,5 W
T20-VA2.1...	22,2 W	16,7 W	11,1 W	5,6 W
T20-VA2.2...	25,0 W	18,8 W	12,5 W	6,3 W
T20-VA2.3...	28,6 W	21,4 W	14,3 W	7,1 W
T20-VA4.1K.BORx	57,1 W	42,9 W	28,6 W	14,3 W
T20-VA4.3.K1.BORx	57,1 W	42,9 W	28,6 W	14,3 W

...for T6 Temperature Class ($T_{sur} < 85^{\circ}\text{C}$)

Model:	$T_{amb\ max}$			
	40°C	50°C	60°C	70°C
T20-VA0.1...	10,5 W	7,9W	5,3 W	2,6 W
T20-VA0.4...	13,8 W	10,3 W	6,9 W	3,4 W
T20-VA1.1...	17,4 W	13,0 W	8,7 W	4,3 W
T20-VA1.2...	18,2 W	13,6 W	9,1 W	4,5 W
T20-VA2.0...	18,2 W	13,6 W	9,1 W	4,5 W
T20-VA2.1...	22,2 W	16,7 W	11,1 W	5,6 W
T20-VA2.2...	25,0 W	18,8 W	12,5 W	6,3 W
T20-VA2.3...	28,6 W	21,4 W	14,3 W	7,1 W
T20-VA4.1K.BORx	57,1 W	42,9 W	28,6 W	14,3 W
T20-VA4.3.K1.BORx	57,1 W	42,9 W	28,6 W	14,3 W

...for T6 Temperature Class ($T_{sur} < 85^{\circ}\text{C}$)

Model:	$T_{amb\ max}$			
	40°C	50°C	60°C	70°C
T20-VA0.1...	10,5 W	7,9W	5,3 W	2,6 W
T20-VA0.4...	13,8 W	10,3 W	6,9 W	3,4 W
T20-VA1.1...	17,4 W	13,0 W	8,7 W	4,3 W
T20-VA1.2...	18,2 W	13,6 W	9,1 W	4,5 W
T20-VA2.0...	18,2 W	13,6 W	9,1 W	4,5 W
T20-VA2.1...	22,2 W	16,7 W	11,1 W	5,6 W
T20-VA2.2...	25,0 W	18,8 W	12,5 W	6,3 W
T20-VA2.3...	28,6 W	21,4 W	14,3 W	7,1 W
T20-VA4.1K.BORx	57,1 W	42,9 W	28,6 W	14,3 W
T20-VA4.3.K1.BORx	57,1 W	42,9 W	28,6 W	14,3 W



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...for T5 Temperature Class ($T_{sur} < 100^{\circ}\text{C}$)

Model:	$T_{amb\ max}$					
	40°C	50°C	60°C	70°C	80°C	85°C
T20-VA0.1...	13,4 W	11,8 W	9,2 W	6,6 W	3,9 W	2,6 W
T20-VA0.4...	14,2 W	12,7 W	11,2 W	8,6 W	5,2 W	3,4 W
T20-VA1.1...	23,9 W	19,6 W	15,2 W	10,9 W	6,5 W	4,3 W
T20-VA1.2...	25,0 W	20,6 W	15,9 W	11,4 W	6,8 W	4,5 W
T20-VA2.0...	25,0 W	20,6 W	15,9 W	11,4 W	6,8 W	4,5 W
T20-VA2.1...	30,6 W	25,0 W	19,4 W	13,9 W	8,3 W	5,6 W
T20-VA2.2...	34,4 W	28,1 W	21,9 W	15,6 W	9,4 W	6,3 W
T20-VA2.3...	39,3 W	32,1 W	25,0 W	17,9 W	10,7 W	7,1 W
T20-VA4.1K.BORx	60,0 W	55,0 W	50,0 W	35,7 W	21,4 W	14,3 W
T20-VA4.3.K1.BORx	78,6 W	64,3 W	50,0 W	35,7 W	21,4 W	14,3 W

...for T4 Temperature Class ($T_{sur} < 135^{\circ}\text{C}$)

Model:	$T_{amb\ max}$					
	50°C	70°C	90°C	100°C	110°C	120°C
T20-VA0.1...	12,0 W	9,2 W	6,3 W	4,9 W	3,5 W	2,1 W
T20-VA0.4...	12,7 W	9,7 W	6,7 W	5,2 W	3,7 W	2,2 W
T20-VA1.1...	34,8 W	26,1 W	17,4 W	13,0 W	8,7 W	4,3 W
T20-VA1.2...	36,4 W	27,3 W	18,2 W	13,6 W	9,1 W	4,5 W
T20-VA2.0...	36,4 W	27,3 W	18,2 W	13,6 W	9,1 W	4,5 W
T20-VA2.1...	44,4 W	33,3 W	22,2 W	16,7 W	11,1 W	5,6 W
T20-VA2.2...	50,0 W	37,5 W	25,0 W	16,7 W	12,5 W	6,3 W
T20-VA2.3...	57,1 W	42,9 W	28,6 W	21,4 W	14,3 W	7,1 W
T20-VA4.1K.BORx	55,0 W	45,0 W	35,0 W	30,0 W	25,0 W	14,3 W
T20-VA4.3.K1.BORx	114,3 W	85,7 W	57,1 W	42,9 W	28,6 W	14,3 W

...for T3 Temperature Class ($T_{sur} < 160^{\circ}\text{C}$)

Model:	$T_{amb\ max}$						
	50°C	70°C	90°C	110°C	130°C	140°C	150°C
T20-VA1.1...	47,8 W	39,1 W	30,4 W	21,7 W	13,0 W	8,7 W	4,3 W
T20-VA1.2...	50,0 W	40,9 W	31,8 W	22,7 W	13,6 W	9,1 W	4,5 W
T20-VA2.0...	50,0 W	40,9 W	31,8 W	22,7 W	13,6 W	9,1 W	4,5 W
T20-VA2.1...	61,1 W	50,0 W	38,9 W	27,8 W	16,7 W	11,1 W	5,6 W
T20-VA2.2...	68,8 W	56,3 W	43,8 W	31,3 W	18,8 W	12,5 W	6,3 W
T20-VA2.3...	78,6 W	64,3 W	50,0 W	35,7 W	21,4 W	14,3 W	7,1 W
T20-VA4.3.K1.BORx	157,1 W	128,6 W	100,0 W	71,4 W	42,9 W	28,6 W	14,3 W

Protection degrees:

Model:	Protection degree (EN 60529:2014):
T20-VA...:	IP66/IP68 3m / 24h IP69K (immersion depth and duration)

Maximum ambient temperature range:

Model:	Maximum ambient temperature range
T20-VA...:	$-60^{\circ}\text{C} \leq T_{amb} \leq +xxx^{\circ}\text{C}^{**}$

** See power tables above, type plate, model key and installation-/user manual!