

(1) EU-TYPE EXAMINATION CERTIFICATE



- (2) Equipment and Protective Systems intended for use in Potentially Explosive Atmosphere - **Directive 2014/34/EU**
- (3) EU-Type Examination Certificate Number

TÜV 21 ATEX 8696 X

Issue: 00

- (4) Equipment: **liteServer® Series T20**
- (5) Manufacturer: **SAMCON Prozessleittechnik GmbH**
- (6) Address: **Schillerstraße 17,
D-35102 Lohra-Altenvers**

- (7) This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- (8) The TÜV Rheinland Zertifizierungsstelle für Explosionsschutz of TÜV Rheinland Industrie Service GmbH, Notified Body No. 0035 in accordance with Article 21 of the Council Directive 2014/34/EU of 26th February 2014, certifies this product which has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmosphere, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report 557/Ex8218.02/18

- (9) Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to:

**EN IEC 60079-0:2018
EN 60079-28: 2015**

**EN 60079-1: 2014
EN 60079-31: 2014**

- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.
- (11) This EU-Type Examination Certificate relates only to the design and specification for construction of the equipment or protective system. It does not cover the process for actual manufacture or supply of the equipment or protective system, for which further requirements of the directive are applicable.
- (12) The marking of the equipment shall include the following:

II 2G Ex db IIC T6 Gb*

I M2 Ex db I Mb*

II 2D Ex tb IIIC T80°C Db IP68*

*Optional/Additional marking: see description

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz

Cologne, 2023-01-23

Dipl.-Ing. Christian Mehrhoff



This EU-Type Examination Certificate without signature and stamp shall not be valid.
This EU-Type Examination Certificate may be circulated only without alteration. Extracts or alterations are subject to approval by the TÜV Rheinland Industrie Service GmbH TÜV Rheinland Group Am Grauen Stein 51105 Köln
Tel. +49 (0) 221 806-0 Fax. + 49 (0) 221 806 114



Annex

(14) **EU Type Examination Certificate**
TÜV 21 ATEX 8696 X Issue: 00

(15) Description of equipment

15.1 Equipment and type:

liteServer[®] Series T20

15.2 Description

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...

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Additional information about the marking of the equipment:

- II 2D Ex tb IIIC T80°C Db IP68*
- I M2 Ex db I Mb*
- II 2D 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

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°C ≤ Tamb ≤ +xxx°C **

Maximum power:

... for T6 Temperature Class (T_{sur} < 85°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

List of used equipment and components

Gerät/ Device	Hersteller/ Manufacturer	Typ/ Type	Ex-Kennzeichnung/ Ex-Marking	Bescheinigung-Nr./ Certificate no.
Empty enclosure	Samcon	T07	Ex db IIC T6	TÜV 18 ATEX 8217 U

 (16) Test-Report No.

557/Ex8696.00/21

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(17) Special Conditions for safe use

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

(18) Basic Safety and Health Requirements

Covered by aforementioned standard

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