1 UNITED KINGDOM CONFORMITY ASSESSMENT

2

UK TYPE EXAMINATION CERTIFICATE

Safety Device, Controlling Device or Regulating Device intended for use outside a potentially explosive atmosphere but required for or contributing to the safe functioning of Product and Protective Systems with respect to the risks of explosion

UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

3	Type Examination Certificate No.:	**TÜV 24 UKEX 7178 X**	Issue: **00**
4	Product:	**liteServer® Series T20**	
5	Manufacturer:	**SAMCON Prozessleittechnik GmbH**	
6	Address:	**Schillerstraße 17, D-35102 Lohra-Altenvers Germany**	

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

8 TUV Rheinland UK Ltd, Approved Body number 2571, in accordance with Regulation 42 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 the confidential report **557 / UKEX 7178.00 / 24**

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

EN IEC 60079-0:2018 EN 60079-1: 2014 EN 60079-28: 2015 EN 60079-31: 2014

Except in respect of those requirements listed at section 18 of the schedule to this certificate.

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

11 This 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 this product shall include the following:

Ex II 2G Ex db IIC T6 Gb*

Ex I M2 Ex db I Mb*

Ex II 2D Ex tb IIIC T80°C Db IP68*

*Optional/Additional marking: see Description

This certificate and its schedules may only be reproduced in its entirety and without change.

TUV Rheinland UK Ltd. Solihull, 2024-03-21

Klauspeter Graffi

13 SCHEDULE TO UK TYPE EXAMINATION CERTIFICATE

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15 Description of Product

Subject and type

liteServer® Series T20

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…

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)

	$T_{amb\ max}$						
Model:	**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°C)

	$T_{amb\ max}$						
Model:	**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°C)

	$T_{amb\ max}$						
Model:	**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°C)

	$T_{amb\ max}$						
Model:	**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

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16 **Test report No. (associated with this certificate issue): 557 / UKEX 7178.00 / 24**

17 Specific Conditions of Use

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.

18 Essential Health and Safety Requirements (Regulations Schedule 1)

In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, all other requirements are demonstrated in the relevant reports.

19 Drawings and Documents

Reg-Nr./ Reg. no.	Dokumententitel/ Document title:	Dokumenten-Nr./ Document no.:	Rev./ Rev.:	Datum/ Date:
1.	*UK-DoC	Nameplate	-	-
2.	*Manual	manual	-	-