1 **UNITED KINGDOM CONFORMITY ASSESSMENT**

UK TYPE EXAMINATION CERTIFICATE

2 **Product or Protective System Intended for use in Potentially Explosive Atmospheres**

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

3 Type Examination Certificate No.: **TÜV 22 UKEX 7137 X** Issue: **00**

4 Product: **ExCam Series T08**

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 7137.00 / 22.

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 60079-11:2012**
EN 60079-18: 2015	**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:

I M2 Ex db I Mb ;
II 2 G Ex db IIC Gb
II 2 D Ex tb IIIC Db

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

TUV Rheinland UK Ltd

Solihull, 2022-12-21

Dipl.-Ing. Klauspeter Graffi

This Type Examination Certificate without signature shall not be valid. Alterations are subject to approval by TUV Rheinland UK Ltd, 1011 Stratford Road, Shirley, Solihull, B90 4BN, Tel. +44 (0) 121 7969400
A UKAS accredited certification body, No. 8400

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13 SCHEDULE TO UK TYPE EXAMINATION CERTIFICATE

14 CERTIFICATE NUMBER TÜV 22 UKEX 7137 X

15 Description of Product

ExCam Series T08

General product information

The ExCam Series T08 is an electrical device that is protected by a pressure-resistant (Ex-d certified) enclosure.

At the front side, the camera systems dispose of a flange with a sight glass, on the rear side it is equipped with a flange which allows introducing ex-certified cable and cable glands or sealing plugs.

The cameras are certified to be used in ex-zones 1, 2, 21, 22 including the explosion groups IIC and IIIC. It is possible to downgrade the class to IIB.

The Ex-d housings are available in different steel qualities due to which the housing's resistance towards extreme environmental conditions (sea water corrosion, high acid environments etc.) is additionally extended.

Within the pressure-resistant enclosure, various camera modules and lenses reflecting different technical specifications.

Accessory components for example such as PTC heating elements, miniature fans, NIR LED, lighting devices, mechanical components and clamps made of aluminum are optional. Criteria for selecting the camera module are, for example, transmission technology (digital or analog), control functions (IR cut filter, iris, focus), light sensitivity, angle of view, object distance, resolution, optical zoom range, frame rate, or transmission delay.

Furthermore, the ExCam Series can be used in combination with other IECEx device certified modules such as HF-barriers, cable glands, media-converter, or certified lighting devices ([op is]).

Thermal imaging applications are possible as well.

The corresponding instructions of the manufacturer's documentation shall be observed.

Technical Data

Supply Voltage:

Model:	**Supply Voltage:**
T08-VA...:	60V DC / 240V (50/60 Hz) AC
T08-TNXCD...:	60V DC / 240V (50/60 Hz) AC

Protection degrees:

Model:	**Protection degree (EN 60529:2014):**
T08-VA...:	**IP68** 3m / 24h (immersion depth and duration)
T08-TNXCD...:	**IP66, IP67 or IP68**

Maximum ambient temperature range:

Model:	**Maximum ambient temperature range**
T08-VA...:	-60°C ≤ T_{amb} ≤ +xxx°C **
T08-TNXCD...:	-50°C ≤ T_{amb} ≤ +xxx°C **

These values are maximum values.

The actual rated values are indicated on the individual marking plates and in the manufacturer's instructions.

T08-...	T6 (85°C - 5K)				T5 (100°C - 5K)					
	T_{AMB} [°C]									
	40	50	60	70	40	50	60	70	80	85
	P_{therm} [W]									
VA0.1	10.5	7.9	5.3	2.6	13.4	11.8	9.2	6.6	3.9	2.6
VA0.4	13.8	10.3	6.9	3.4	14.2	12.7	11.2	8.6	5.2	3.4
VA1.1	17.4	13.0	8.7	4.3	23.9	19.6	15.2	10.9	8.5	4.3
VA1.2	18.2	13.6	9.1	4.5	25.0	20.6	15.9	11.4	6.8	4.5
VA2.0	18.2	13.6	9.1	4.5	25.0	20.6	15.9	11.4	6.8	4.5
VA2.1	22.2	16.7	11.1	5.6	30.6	25.0	19.4	13.9	8.3	5.6
VA2.2	25.0	18.8	12.5	6.3	34.4	28.1	21.9	15.6	9.4	6.3
VA2.3	28.6	21.4	14.3	7.1	39.3	32.1	25.0	17.9	10.7	7.1
VA3.x	*u.c.*	*u.c.*	*u.c.*	*u.c.*	*u.c.*	*u.c.*	*u.c.*	*u.c.*	*u.c.*	*u.c.*
VA4.1K.PS1	55.9	42.9	28.6	14.3	55.9	50.0	44.1	35.7	21.4	14.3
VA4.1K.BORx	57.1	42.9	28.6	14.3	60.0	55.0	50.0	35.7	21.4	14.3
VA4.3.K1.BORx	57.1	42.9	28.6	14.3	78.6	64.3	50.0	35.7	21.4	14.3
VA4.3.K1.PS1	79.2	60.0	40.0	20.0	79.2	70.8	62.5	50.0	30.0	20.0
TNXCD	57.1	42.9	28.6	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*

T08-...	T4 (135°C - 5K)						T3 (200°C - 40K)						
	T_{AMB} [°C]												
	50	70	90	100	110	120	50	70	90	110	130	140	150
	P_{therm} [W]												
VA0.1	12.0	9.2	6.3	4.9	3.5	2.1	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*
VA0.4	12.7	9.7	6.7	5.2	3.7	2.2	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*
VA1.1	34.8	26.1	17.4	13.0	8.7	4.3	47.8	39.1	30.4	21.7	13.0	8.7	4.3
VA1.2	36.4	27.3	18.2	13.6	9.1	4.5	50.0	40.9	31.8	22.7	13.6	9.1	4.5
VA2.0	36.4	27.3	18.2	13.6	9.1	4.5	50.0	40.9	31.8	22.7	13.6	9.1	4.5
VA2.1	44.4	33.3	22.2	16.7	11.1	5.6	61.1	50.0	38.9	27.8	16.7	11.1	5.6
VA2.2	50.0	37.5	25.0	16.7	12.5	6.3	68.8	56.3	43.8	31.3	18.8	12.5	6.3
VA2.3	57.1	42.9	28.6	21.4	14.3	7.1	78.6	64.3	50.0	35.7	21.4	14.3	7.1
VA3.x	*u.c.*	*u.c.*	*u.c.*	*u.c.*	*u.c.*	*u.c.*	*u.c.*	*u.c.*	*u.c.*	*u.c.*	*u.c.*	*u.c.*	*u.c.*
VA4.1K.PS1	47.1	38.2	26.5	20.6	14.7	8.8	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*
VA4.1K.BORx	55.0	45.0	35.0	30.0	25.0	14.3	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*
VA4.3.K1. BORx	114.3	85.7	57.1	42.9	28.6	14.3	157.1	128.6	100.0	71.4	42.9	28.6	14.3
VA4.3.K1.PS1	70.8	54.2	37.5	29.2	20.8	12.5	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*
TNXCD	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*

16 Test report No. (associated with this certificate issue): 557 / UKEx 7137.00 / 22

17 Specific Conditions of Use

1) The manufacturer must perform the routine test according the EN 60079-ff and additional tests, to ensure that the manufactured equipment is in accordance with the documentation, which was submitted to the notified body in addition to the sample. He must perform the routine tests, which are required in the relevant European standards.

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. no.	Document title:	Document no.:	Rev.:	Date:
1.	Manual UKEx		05	
2.	UK Declaration of Conformity			23.09.2022