



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 18.0023X	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 2	Issue 1 (2020-08-06)
Date of Issue:	2021-11-11		Issue 0 (2018-10-16)
Applicant:	SAMCON Prozessleittechnik GmbH Schillerstraße 17 D-35102 Lohra-Altenvers Germany		
Equipment:	ExCam Series T08		
Optional accessory:			
Type of Protection:	db tb		
Marking:	Ex db I Mb* Ex db IIC T6 Gb* Ex tb IIIC T80°C Db* * see marking and annex		

Approved for issue on behalf of the IECEX
Certification Body:

Christian Mehrhoff

Position:

Assigned certifier

Signature:
(for printed version)

Date:

Christian Mehrhoff
2021-11-11

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.
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Certificate issued by:

TUV Rheinland Industrie Service GmbH
Am Grauen Stein
51105 Cologne
Germany





IECEX Certificate of Conformity

Certificate No.: **IECEX TUR 18.0023X**

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Date of issue: 2021-11-11

Issue No: 2

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

Additional
manufacturing
locations:

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 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-18:2017 Explosive atmospheres - Part 18: Protection by encapsulation "m"
Edition:4.1

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/ExTR18.0023/02](#)

Quality Assessment Report:

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



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The ExCam Series 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 camera modules and lenses, reflecting different technical specifications, are installed.

Accessory components such as PTC heating elements, fans, NIR LEDs, lighting devices, mechanical components, and clamps are optional. 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]).

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. When installing the ExCam, the requirements of IEC 60079-14 must be applied.
2. For Group I and T08-VA2.x.x.BOR5 models, the enclosure is only suitable with a low risk of mechanical hazard $T_{amb} \geq -30^{\circ}\text{C}$.
3. All used cable glands and plugs have to be certified.
4. The housing combinations T07-VA0.x.K1.GER and T07-VA4.x.PS1 may not be used in mining (ATEX group 1) or in areas with high mechanical hazards (ATEX group 2).



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Adding the Model T08-VA0.4.K1.GER

Annex:

[IECEX_TUR_18.0023_X_00_Attachment.annex2.pdf](#)



Attachment to Certificate
IECEX TUR 18.0023X
Revision 0

Attachment to Certificate IECEX TUR 18.0023X

Device: ExCam Series
Type: T08... (details refer to technical data section)
Manufacturer: SAMCON Prozessleittechnik GmbH
Address: Schillerstraße 17
35102 Lohra- Altenvers, Germany

General product information:

The ExCam Series is a pressure-resistant (Ex-d) electrical device... (See main certificate)

The marking of the equipment shall include the following:

Ex db IIC T6 Gb*
Ex tb IIIC T80°C Db*
Ex db I Mb*

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

The mining 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. **

ix Gx/Dx = for models with [ix Gx/Dx] intrinsically safe circuits. **
op is Gx/Dx = for models with [op is Gx/Dx] FOC connectors or illuminators. **
op pr Gx/Dx = for models with [op pr Gx/Dx] FOC Connectors. **
mb = for models with HF Barrier. **

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

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
T08-VA1.1...	17,4 W	13,0 W	8,7 W	4,3 W
T08-VA1.2...	18,2 W	13,6 W	9,1 W	4,5 W
T08-VA2.0...	18,2 W	13,6 W	9,1 W	4,5 W
T08-VA2.1...	22,2 W	16,7 W	11,1 W	5,6 W
T08-VA2.2...	25,0 W	18,8 W	12,5 W	6,3 W
T08-VA2.3...	28,6 W	21,4 W	14,3 W	7,1 W
T08-VA4.3...	57,1 W	42,9 W	28,6 W	14,3 W
TNXCD	57,1 W	42,9 W	28,6 W	n.a.



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Revision 0

...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
T08-VA1.1	23,9 W	19,6 W	15,2 W	10,9 W	6,5 W	4,3 W
T08-VA1.2...	25,0 W	20,6 W	15,9 W	11,4 W	6,8 W	4,5 W
T08-VA2.0...	25,0 W	20,6 W	15,9 W	11,4 W	6,8 W	4,5 W
T08-VA2.1...	30,6 W	25,0 W	19,4 W	13,9 W	8,3 W	5,6 W
T08-VA2.2...	34,4 W	28,1 W	21,9 W	15,6 W	9,4 W	6,3 W
T08-VA2.3...	39,3 W	32,1 W	25,0 W	17,9 W	10,7 W	7,1 W
T08-VA4.3...	78,6 W	64,3 W	50,0 W	35,7 W	21,4 W	14,3 W
TNXCD	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

...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
T08-VA1.1	34,8 W	26,1 W	17,4 W	13,0 W	8,7 W	4,3 W
T08-VA1.2...	36,4 W	27,3 W	18,2 W	13,6 W	9,1 W	4,5 W
T08-VA2.0...	36,4 W	27,3 W	18,2 W	13,6 W	9,1 W	4,5 W
T08-VA2.1...	44,4 W	33,3 W	22,2 W	16,7 W	11,1 W	5,6 W
T08-VA2.2...	50,0 W	37,5 W	25,0 W	16,7 W	12,5 W	6,3 W
T08-VA2.3...	57,1 W	42,9 W	28,6 W	21,4 W	14,3 W	7,1 W
T08-VA4.3...	114,3 W	85,7 W	57,1 W	42,9 W	28,6 W	14,3 W
TNXCD	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

...for T3 Temperature Class ($T_{sur} < 200^{\circ}\text{C} - 40\text{K}$)

Model:	$T_{amb\ max}$						
	50°C	70°C	90°C	110°C	130°C	140°C	150°
T08-VA1.1	47,8 W	39,1 W	30,4 W	21,7 W	13,0 W	8,7 W	4,3 W
T08-VA1.2	50,0 W	40,9 W	31,8 W	22,7 W	13,6 W	9,1 W	4,5 W
T08-VA2.0	50,0 W	40,9 W	31,8 W	22,7 W	13,6 W	9,1 W	4,5 W
T08-VA2.1	61,1 W	50,0 W	38,9 W	27,8 W	16,7 W	11,1 W	5,6 W
T08-VA2.2	68,8 W	56,3 W	43,8 W	31,3 W	18,8 W	12,5 W	6,3 W
T08-VA2.3	78,6 W	64,3 W	50,0 W	35,7 W	21,4 W	14,3 W	7,1 W
T08-VA4.3	157,1 W	128,6 W	100,0 W	71,4 W	42,9 W	28,6 W	14,3 W
TNXCD	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

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...:	$-60^{\circ}\text{C} \leq T_{amb} \leq +xxx^{\circ}\text{C}$ **
T08-TNXCD...:	$-50^{\circ}\text{C} \leq T_{amb} \leq +xxx^{\circ}\text{C}$ **

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



Attachment to Certificate
IECEX TUR 18.0023X
Issue 1

Attachment to Certificate IECEX TUR 18.0023X Issue 1

Device: ExCam Series
Type: T08... (details refer to technical data section)

Manufacturer: SAMCON Prozessleittechnik GmbH

Address: Schillerstraße 17
35102 Lohra- Altenvers, Germany

General product information:

Adding the Models T08-VA0.1.K1.BOR, T08-VA0.1.K1.GER
T08-VA0.4.K1.BOR
T08-VA2.x.x.BOR5 (Mining Update)
T08-VA4.1K.PS1, T08-VA4.3.K1.PS1

Technical Data:

Supply Voltage:

Model:	Max Supply Voltage:
T08-VA0....	60V DC / 240V (50/60 Hz) AC
T08-VA4....	60V DC / 240V (50/60 Hz) AC

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
T08-VA0.1...	10,5 W	7,9 W	5,3 W	2,6 W
T08-VA0.4...	13,8 W	10,3 W	6,9 W	3,4 W
T08-VA4.1K.PS1...	55,9 W	42,9 W	28,6 W	14,3 W
T08-VA4.1K.BOR...	57,1 W	42,9 W	28,6 W	14,3 W
T08-VA4.3.K1.PS1...	79,2 W	60,0 W	40,0 W	20,0 W

...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
T08-VA0.1...	13,4 W	11,8 W	9,2 W	6,6 W	3,9 W	2,6 W
T08-VA0.4...	14,2 W	12,7 W	11,2 W	8,6 W	5,2 W	3,4 W
T08-VA4.1K.Px1...	55,9 W	50,0 W	44,1 W	35,7 W	21,4 W	14,3 W
T08-VA4.1K.BOR...	60,0 W	55,0 W	50,0 W	35,7 W	21,4 W	14,3 W
T08-VA4.3.K1.PS1...	79,2 W	70,8 W	62,5 W	50,0 W	30,0 W	20,0 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
T08-VA0.1...	12,0 W	9,2 W	6,3 W	4,9 W	3,5 W	2,1 W
T08-VA0.4...	12,7 W	9,7 W	6,7 W	5,2 W	3,7 W	2,2 W
T08-VA4.1K.PS1...	47,1 W	38,2 W	26,5 W	20,6 W	14,7 W	8,8 W
T08-VA4.1K.BOR...	55,0 W	45,0 W	35,0 W	30,0 W	25,0 W	14,3 W
T08-VA4.3.K1.PS1...	70,8 W	54,2 W	37,5 W	29,2 W	20,8 W	12,5 W



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IECEX TUR 18.0023X
Issue 1

Protection degrees:

Model:	Protection degree (EN 60529:2014):
T08-VA...:	IP68 3m / 24h (immersion depth and duration)

Maximum ambient temperature range:

Model:	Maximum ambient temperature range
T08-VA0.1.K1.GER...:	$-30^{\circ}\text{C} \leq T_{\text{amb}} \leq +\text{xxx}^{\circ}\text{C}$ **
T08-VA0.x.K1.BOR...:	$-60^{\circ}\text{C} \leq T_{\text{amb}} \leq +\text{xxx}^{\circ}\text{C}$ **
T08-VA2.x.x.BOR5... (Mining 4J):	$-30^{\circ}\text{C} \leq T_{\text{amb}} \leq +\text{xxx}^{\circ}\text{C}$ **
T08-VA4.x.BOR...:	$-60^{\circ}\text{C} \leq T_{\text{amb}} \leq +\text{xxx}^{\circ}\text{C}$ **
T08-VA4.x.PS1...:	$-50^{\circ}\text{C} \leq T_{\text{amb}} \leq +\text{xxx}^{\circ}\text{C}$ **

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



Attachment to Certificate
IECEX TUR 18.0023X
Issue 2

Attachment to Certificate IECEX TUR 18.0023X Issue 2

Device: ExCam Series
Type: T08... (details refer to technical data section)
Manufacturer: SAMCON Prozessleittechnik GmbH
Address: Schillerstraße 17
35102 Lohra- Altenvers, Germany

General product information:
Adding the Models .T08-VA0.4.K1. GER

Technical Data:

Maximum ambient temperature range:

Model:	Maximum ambient temperature range
T08-VA0.4.K1.GER.....:	$-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +\text{XXX}^{\circ}\text{C}$ **

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