

Translation

EU-Type Examination Certificate Supplement 1

Change to Directive 2014/34/EU

Components intended for use on/in an Equipment or Protective System intended for use in potentially explosive atmospheres
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 16 ATEX E 018 U**

Product: **EKL Connection Technology ECT 35 and ECT 45 type 27-5A3*-****/******

Manufacturer: **BARTEC GmbH**

Address: **Max-Eyth-Str. 16, 97980 Bad Mergentheim, Germany**

This supplementary certificate extends EC-Type Examination Certificate No. BVS 16 ATEX E 018 U to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any acceptable variations specified in the appendix to this certificate and the documents referred to therein.

DEKRA EXAM GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 Annex II to the Directive.

The examination and test results are recorded in the confidential Report No. BVS PP 16.2042 EU.

The Essential Health and Safety Requirements are assured in consideration of:

IEC 60079-0:2017	General requirements
EN 60079-7:2015	Increased Safety "e"
EN 60079-30-1:2017	Electrical resistance trace heating
EN 60079-31:2014	Protection by Enclosure "t"

Except in respect of those requirements listed under item 18 of the appendix.

The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system respectively product.

This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:

 **II 2G Ex eb IIC Gb**
II 2D Ex tb IIC Db

DEKRA EXAM GmbH
Bochum, 2018-07-24

Signed: Ralf Leiendecker

Certifier

Signed: Dr Michael Wittler

Approver

13 **Appendix**

14 **EU-Type Examination Certificate
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15 **Product description**

15.1 **Subject and type**

EKL Connection Technology ECT 35 and ECT 45 type 27-5A3*-****/****

type	27	-	5	A	3	*	-	*	*	*	*	/	*	*	*	*
key	A		B	C	D	E		F	G	H	I		J	K	L	M

A	Basis program	27	Heating equipment															
B	Basis program with heating	5	Heating. Installation material															
C	Construction	A	EKL Connection Technology Ex															
D	Function	3	Heating cable connection / connector ATEX / IECEX															
E	Design ^(A) (Rated current / rated cross-section side 1 [mm ²] # rated cross-section side 2 [mm ²] / Rated cross-section protective braiding [mm ²] / enclosure diameter)	1 2 3 4 5 6 7 8 A B C D	32 A / 2.5 mm ² # 2.5 mm ² / 2.5 mm ² / 35 mm 54 A / 6 mm ² # 6 mm ² / 2.5 mm ² / 35 mm 73 A / 10 mm ² # 2.5 mm ² / 6 mm ² / 45 mm 73 A / 10 mm ² # 6 mm ² / 6 mm ² / 45 mm 73 A / 10 mm ² # 10 mm ² / 6 mm ² / 45 mm 98 A / 16 mm ² # 6 mm ² / 6 mm ² / 45 mm 98 A / 16 mm ² # 10 mm ² / 6 mm ² / 45 mm 129 A / 16 mm ² # 16 mm ² / 6 mm ² / 45 mm 129 A / 25 mm ² # 6 mm ² / 6 mm ² / 45 mm 129 A / 25 mm ² # 10 mm ² / 6 mm ² / 45 mm 129 A / 25 mm ² # 16 mm ² / 6 mm ² / 45 mm 129 A / 25 mm ² # 25 mm ² / 6 mm ² / 45 mm															
F	Sealing gasket 1 (sealing range mm / enclosure diameter)	A B C D E	<table border="1"> <tr> <td>Ø 3.2 – 4.8 / 35 mm</td> <td>F</td> <td>Ø 7.8 – 9.4 / 45 mm</td> </tr> <tr> <td>Ø 4.8 – 6.3 / 35 mm</td> <td>G</td> <td>Ø 9.4 – 11 / 45 mm</td> </tr> <tr> <td>Ø 6.3 – 7.9 / 35 mm</td> <td>H</td> <td>Ø 11 – 12.4 / 45 mm</td> </tr> <tr> <td>Ø 4.6 – 6.2 / 45 mm</td> <td>1</td> <td>Combination of sealing gasket 1</td> </tr> <tr> <td>Ø 6.2 – 7.8 / 45 mm</td> <td></td> <td></td> </tr> </table>	Ø 3.2 – 4.8 / 35 mm	F	Ø 7.8 – 9.4 / 45 mm	Ø 4.8 – 6.3 / 35 mm	G	Ø 9.4 – 11 / 45 mm	Ø 6.3 – 7.9 / 35 mm	H	Ø 11 – 12.4 / 45 mm	Ø 4.6 – 6.2 / 45 mm	1	Combination of sealing gasket 1	Ø 6.2 – 7.8 / 45 mm		
Ø 3.2 – 4.8 / 35 mm	F	Ø 7.8 – 9.4 / 45 mm																
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Ø 4.6 – 6.2 / 45 mm	1	Combination of sealing gasket 1																
Ø 6.2 – 7.8 / 45 mm																		
G	Sealing gasket 2 (sealing range mm / enclosure diameter)	A B C D E	<table border="1"> <tr> <td>Ø 3.2 – 4.8 / 35 mm</td> <td>F</td> <td>Ø 7.8 – 9.4 / 45 mm</td> </tr> <tr> <td>Ø 4.8 – 6.3 / 35 mm</td> <td>G</td> <td>Ø 9.4 – 11 / 45 mm</td> </tr> <tr> <td>Ø 6.3 – 7.9 / 35 mm</td> <td>H</td> <td>Ø 11 – 12.4 / 45 mm</td> </tr> <tr> <td>Ø 4.6 – 6.2 / 45 mm</td> <td>2</td> <td>Combination of sealing gasket 2</td> </tr> <tr> <td>Ø 6.2 – 7.8 / 45 mm</td> <td></td> <td></td> </tr> </table>	Ø 3.2 – 4.8 / 35 mm	F	Ø 7.8 – 9.4 / 45 mm	Ø 4.8 – 6.3 / 35 mm	G	Ø 9.4 – 11 / 45 mm	Ø 6.3 – 7.9 / 35 mm	H	Ø 11 – 12.4 / 45 mm	Ø 4.6 – 6.2 / 45 mm	2	Combination of sealing gasket 2	Ø 6.2 – 7.8 / 45 mm		
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Ø 4.6 – 6.2 / 45 mm	2	Combination of sealing gasket 2																
Ø 6.2 – 7.8 / 45 mm																		



H	Combination of sealing gasket 1	0 No combination 2 A, B 3 A, B, C 4 D, E, F 5 E, F, G 6 E, F, G, H
I	Combination of sealing gasket 2	0 No combination 2 A, B 3 A, B, C 4 D, E, F 5 E, F, G 6 E, F, G, H
J-M	Code number and characteristics for variants without any effect on explosion protection	

(A)# - Sign for the statement of the different rated cross-section each connection side.

15.2 Description

The EKL Connection Technology ECT 35 and ECT 45, type 27-5A3*-****/**** is a heating cable connection/connector which are used for single core plastic heating cables for potentially explosive areas.

The EKL Connection Technology ECT 35 and ECT 45, type 27-5A3*-****/**** is built in type of protection increased safety "e" or in type of protection by enclosure "t" and is affected for the installation in areas with EPL Gb or EPL Db.

The connector enclosure consists of two pressing screws and a cylindrical enclosure. At each side a cable gland is fixed as integral component of the enclosure.

Reason of the supplement:

- Change to Directive 2014/34/EU
- Change of the max. rated current to 129 A for the version type 27-5A38-****/****
- Updating to the standard IEC 60079-0:2017

With this supplement the certificate is changed to Directive 2014/34/EU.

(Annotation: In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.)

15.3 Parameters

Rated voltage	750 V
IP-protection degree	IP 66 (IEC/EN 60079-0, IEC/EN 60529)
Limits of the service temperature	-60 °C ... +200 °C

Type / Name	Rated current	Nominal section heating cables (cross section area)	Nominal section protective braid (cross section area)
27-5A31-****/**** ECT 35-32-**	max. 32 A	2.5 mm ² / (1.5 – 2.5 mm ²)	2.5 mm ² / (1.5 – 2.5 mm ²)
27-5A32-****/**** ECT 35-54-**	max. 54 A	6 mm ² / (4 – 6 mm ²)	2.5 mm ² / (1.5 – 2.5 mm ²)

Type / Name	Rated current	Nominal section heating cables (cross section area)	Nominal section protective braid (cross section area)
27-5A33-*****, 27-5A34-*****, 27-5A35-*****, ECT 45-73-**	max. 73 A	10 mm ²	6 mm ² / (4 – 6 mm ²)
27-5A36-*****, 27-5A37-*****, ECT 45-98-**	max. 98 A	16 mm ²	6 mm ² / (4 – 6 mm ²)
27-5A38-*****, ECT 45-129-**	max. 129 A	16 mm ²	6 mm ² / (4 – 6 mm ²)
27-5A3A-*****, 27-5A3B-*****, 27-5A3C-*****, 27-5A3D-*****, ECT 45-129-**	max. 129 A	25 mm ²	6 mm ² / (4 – 6 mm ²)

16 Report Number

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17 Installation Instructions

The EKL Connection Technology ECT 35 and ECT 45, type 27-5A3*-****/**** must be installed in such a way that the heating cable is protected against tensile forces.

The dielectric strength test in regard to the routine test (EN/IEC 60079-7 cl. 7.1) must be part of the examination for the trace heating system.

18 Essential Health and Safety Requirements

The Essential Health and Safety Requirements are covered by the standards listed under item 9. The standard IEC 60079-0:2017 is equivalent to the harmonized standard EN 60079-0:2012 + A11:2013 in terms of safety.

19 Drawings and Documents

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
Bochum, dated 2018-07-24
BVS-Pz/Nu A 20180496



Certifier



Approver