



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

### Ex COMPONENT CERTIFICATE

Certificate No.:	IECEX CML 17.0045U	Issue No: 2	Certificate history:
Status:	<b>Current</b>	Page 1 of 4	Issue No. 2 (2019-02-14) Issue No. 1 (2018-08-03) Issue No. 0 (2017-08-09)
Date of Issue:	<b>2019-02-14</b>		
Applicant:	<b>BARTEC GmbH</b> Max-Eyth-Strabe 16 97980 bad Mergentheim <b>Germany</b>		
Ex Component:	<b>Switch Module Type 07-332*-****/****, Control Switch Type 07-333*-****/**** &amp; Switch Module, 4-pole, Type 07-3381-****/****</b>		

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection: **Flameproof "db", Increased safety "eb"**

Marking:

Ex db eb I Mb

Ex db eb IIC Gb

-55°C ≤ Ta ≤ +40°C (16 A)

-55°C ≤ Ta ≤ +60°C (11 A)

Ts = -55°C ≤ Ts ≤ +85°C

Approved for issue on behalf of the IECEx  
Certification Body:

R C Marshall

Position:

Certification Officer

Signature:  
(for printed version)

Date:

2019-02-14

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.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**Certification Management Limited**  
Unit 1, Newport Business Park  
New Port Road  
Ellesmere Port, CH65 4LZ  
United Kingdom





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Manufacturer: **BARTEC GmbH**  
Max-Eyth-Strabe 16  
97980 bad Mergentheim  
**Germany**

Additional Manufacturing location(s):

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 Component 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 Ex Component 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 : 2011** Explosive atmospheres - Part 0: General requirements  
Edition:6.0  
**IEC 60079-1 : 2014-06** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:7.0  
**IEC 60079-7 : 2015** Explosive atmospheres – Part 7: Equipment protection by increased safety "e"  
Edition:5.0

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

## TEST & ASSESSMENT REPORTS:

*A sample(s) of the Ex Component listed has successfully met the examination and test requirements as recorded in*

### Test Report:

[GB/CML/ExTR17.0123/00](#) [GB/CML/ExTR18.0167/00](#) [GB/CML/ExTR19.0003/00](#)

### Quality Assessment Report:

[DE/TUN/QAR06.0017/10](#)



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## Schedule

Ex Component(s) covered by this certificate is described below:

### SCHEDULE OF LIMITATIONS:

Refer to Annex for Schedule of Limitations.



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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):**

**Annex:**

[IECEX CML 17.0045U Iss. 2 Certificate Annex.pdf](#)

Annexe to: IECEx CML 17.0045U Iss. 2  
 Applicant: Bartec GmbH  
 Apparatus: Switch Module Type 07-332\*-\*\*\*\*/\*\*\*\*  
 Control Switch Type 07-333\*-\*\*\*\*/\*\*\*\*  
 Switch Module, 4-pole Type 07-3381-\*\*\*\*/\*\*\*\*



## Product Description

### Switch Module

The Switch Module Type 07-332\*-\*\*\*\*/\*\*\*\* is a built-in switch with two switching elements which can be separately operated. It is suitable for bottom or front mounting and serves as a control switch.

Electrical Data														
Rated Insulation Voltage $U_i$		690 V												
Rated Operating Voltage $U_e$		400 V	400 V	250 V	110 V	24 V								
Rated Operating Current $I_e$		16 A	10 A	10 A	0.5 A	1 A								
Related to Utilization Category		AC-12	AC-15	AC-15	DC-13	DC-13								
Rated values differing from those stated above are permissible provided that the making and breaking capacities comply with the relevant regulations and such values have been specified by the manufacturer dependent on operating mode, utilization category, etc.														
Maximum Cross Section		2.5 mm <sup>2</sup>												
Service Temperature $T_s^*$		-55 °C ≤ $T_s$ ≤ +85 °C												
* Including self-heating rate, maximum ambient temperature and, if applicable, external heat.														
Conventional Thermal Current $I_{the}$														
For an ambient temperature up to 40 °C		16 A (-55 °C ≤ $T_a$ ≤ +40 °C)												
For an ambient temperature up to 60 °C		11 A (-55 °C ≤ $T_a$ ≤ +60 °C)												
Model Number														
Code Number	Type	07	-	3	3	2	*	-	*	*	0	*	/	****
		1	-	2	3	4	5	-	6	7	8	9	/	10
1	Program	07 = Common code number												
2, 3	Product Sector	33 = Code for control and indicator module												
4	Function	2 = Switch module												
5	Fixture	1 = Bottom 3 = Front												
6	Connection	1 = Screw terminals 4 = Screw terminals 15°												
7	Switch	1 = 2 NC												

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		2 = 2 NO 4 = 1 NC and 1 NO
8	No. of conductors	0 with clamps
9, 10	Applications	Variants without influence of explosion protection

### Control Switch

The Control Switch Type 07-3331-1\*\*\*/\*\*\*\* for bottom mounting is used as a main switch, as a control switch suitable for isolation, and as a motor switch. It is composed of two switch modules with a single operating unit.

Electrical Ratings and Technical Data														
Rated Insulation Voltage $U_i$		690 V												
Rated Operating Voltage $U_e$		400 V	400 V	110 V	24 V									
Rated Operating Current $I_e$		16 A	10 A	0.5 A	1 A									
Related to Utilization Category		AC-12	AC-15	DC-13	DC-13									
Rated values differing from those stated above are permissible provided that the making and breaking capacities comply with the relevant regulations and such values have been specified by the manufacturer dependent on operating mode, utilization category, etc														
Maximum Cross Section		2.5 mm <sup>2</sup>												
Service Temperature $T_s^*$		$-55\text{ °C} \leq T_s \leq +85\text{ °C}$												
* Including self-heating rate, maximum ambient temperature and, if applicable, external heat.														
Conventional Thermal Current $I_{the}$														
For an ambient temperature up to 40 °C		16 A ( $-55\text{ °C} \leq T_a \leq +40\text{ °C}$ )												
For an ambient temperature up to 60 °C		11 A ( $-55\text{ °C} \leq T_a \leq +60\text{ °C}$ )												
Model Number														
Code Number	Type	07	-	3	3	3	1	-	1	*	*	*	/	****
		1	-	2	3	4	5	-	6	7	8	9	/	10
1	Program	07 = Common code number												
2, 3	Product Sector	33 = Code for control and indicator module												
4	Function	3 = Control switch												
5	Fixture	1 = Bottom												



6	Connection	1 = Terminals
7	Switch	A ... Z; A = 2 positions maintained
8, 9	Switching combinations	01 ... 99
9, 10	Applications	Variants without influence of explosion protection

### Switch Module, 4-pole

The Switch Module, 4-pole, Type 07-3381-\*\*\*\*/\*\*\*\* is an Ex-component and consists of two flameproof enclosures "Ex d", connecting contacts and a plastic cover, integrating the design into a single unit. Each flameproof enclosure "Ex d" is formed by a plastic case filled with sealing compound insulating the switching elements, forming the explosion proof enclosure. This switching module is used to switch external electrical circuits.

Electrical Ratings and Technical Data																	
Rated Insulation Voltage $U_i$	690 V																
Rated Operating Voltage $U_e$	400 V	400 V	110 V	24 V	230V	220V											
Rated Operating Current $I_e$	16 A	10 A	0.5 A	1 A	10A	0.1A											
Related to Utilization Category	AC-12	AC-15	DC-13	DC-13	AC-15	DC-13											
Rated values differing from those stated above are permissible provided that the making and breaking capacities comply with the relevant regulations and such values have been specified by the manufacturer dependent on operating mode, utilization category, etc																	
Maximum Cross Section	2.5 mm <sup>2</sup>																
Service Temperature $T_s^*$	-55°C ≤ $T_s$ ≤ +85°C																
* Including self-heating rate, maximum ambient temperature and, if applicable, external heat.																	
Conventional Thermal Current $I_{the}$																	
For an ambient temperature up to 40°C	16 A (-55 °C ≤ $T_a$ ≤ +40 °C)																
For an ambient temperature up to 60°C	11 A (-55 °C ≤ $T_a$ ≤ +60 °C)																
Model Number																	
Code Number	Type	07	-	3	3	8	1	-	*	*	*	*	/	*	*	*	*
		A	-	B	C	D	E	-	F	G	H	I	/	J	K	L	M
A	Program	07 = Common code number															
B, C	Product Sector	33 = Code for control and indicator module															
D	Function	8 = Switch module, 4-pole															

E	Fixture	1 = Bottom mounting – DIN rail		
F	Switch	1:	4 N/C*	*N/C – Normally closed
		2:	3 N/C – 1 N/O*	*N/O – Normally opened
		3:	2 N/C – 2 N/O	
		4:	4 N/O	
		5:	1 N/C – 3 N/O	
G - M	Variants with influence of explosion protection.			

### Conditions of Manufacture

There are no conditions of manufacture.

### Schedule of Limitations

The following are schedule of limitations:

- i. The components are to be installed in an enclosure which meets the requirements of a recognised type of protection as specified in Section 1 of EN/IEC 60079-0.
- ii. When the components are installed in an increased safety enclosure that complies with EN/IEC 60079-7, the creepage and clearance distances must comply with the requirements of Table 1.