

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

EX COMPONENT CERTIFICATE

Certificate No.: IECEx CML 17.0045U Page 1 of 4 Certificate history:

Status: Current Issue No: 3 Issue 2 (2019-02-14)
Issue No: 3 Issue 1 (2018-08-03)
Issue 0 (2017-08-09)

Date of Issue: 2021-06-21

Applicant: BARTEC GmbH

Max-Eyth-Strabe 16 97980 bad Mergentheim

Germany

Ex Component: Switch Module Type 07-332*-****/**** and Type 07-3382-****/****, Control Switch Type 07-333*-****/**** & Switch

Module, 4-pole, Type 07-3381-***/****

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 \leq Ta \leq +40 $^{\circ}$ C (16 A) -55 $^{\circ}$ C \leq Ta \leq +60 $^{\circ}$ C (11 A) -55 $^{\circ}$ C \leq Ts \leq +85 $^{\circ}$ C

Approved for issue on behalf of the IECEx R C Marshall

Certification Body:

Position: Operations Manager

Signature:

(for printed version)

Date:

- 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.
- The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Eurofins E&E CML Limited Unit 1, Newport Business Park New Port Road Ellesmere Port, CH65 4LZ United Kingdom







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Date of issue: 2021-06-21 Issue No: 3

Manufacturer: BARTEC GmbH

Max-Eyth-Strabe 16 97980 bad Mergentheim

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 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

Edition:5.1

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 Reports:

GB/CML/ExTR17.0123/00 GB/CML/ExTR18.0167/00 GB/CML/ExTR19.0003/00

GB/CML/ExTR20.0256/00

Quality Assessment Report:

DE/TUN/QAR06.0017/13



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

Switch Module

The switch module type 07-332*-***/**** and type 07-3382-****/**** is a built-in switch with four switching elements which can be separately operated. It is suitable for bottom or front mounting and serves as a control switch.

Control Switch

The control switch type 07-333*-****/**** 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.

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.

Refer to Annex for full description.

SCHEDULE OF LIMITATIONS:

Refer to Annex for Schedule of Limitations.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above) Variation 1

This variation introduces the following modification:

1. To expand the tables in the product description

Variation 2

This variation introduces the following modification:

1. Addition of the Switch Module, 4-pole, Type 07-3381-****/**** and expansion of the product description.

Variation 3

This variation introduces the following modifications:

- 1. To update the certificate to the latest editions of IEC 60079-0 and IEC 60079-7.
- 2. Addition to the Schedule of Limitations.
- 3. The change of some electrical ratings and technical information.

Annex:

IECEx CML 17.0045U Iss. 3 Certificate Annex.pdf

Annexe to: IECEx CML 17.0045U Issue 3

Applicant: Bartec GmbH

Apparatus: Switch Module Type 07-332*-***/*** and

Type 07-3382-***/****

Control Switch Type 07-333*-***/****

Switch Module, 4-pole Type 07-3381-***/****



Description

Switch Modules Type 07-3321-**0*/**** and Type 07-3323-**0*/****

The Switch Modules Type 07-3321-**0*/**** and Type 07-3323-**0*/**** are a built-in switch with two switching elements which can be separately operated. They are suitable for bottom or front mounting and serve as a control switch.

Electrical Ratings & Technical Data	
Rated insulation voltage, Ui	690 V
Rated operating voltage, U _e	Up to 400 V
Rated operating current, I _e	Up to 16 A
Rated connecting capacity of terminals	0.75 mm² - 2.5 mm²/18 AWG - 12 AWG
Rated torque	0.4 Nm - 0.7 Nm
Service temperature range, T _s *	-55°C ≤ T _s ≤ +85°C
* Including self-heating rate, maximum ambier	nt temperature and, if applicable, external heat
Conventional Thermal Current, Ithe	16 A $(-55 ^{\circ}\text{C} \le T_a \le +40 ^{\circ}\text{C})$
	11 A (-55 °C ≤ T _a ≤ +60 °C)

Model I	No.	Model No.																				
Type no).		0	7	-	3	3	2	*	-	*	*	0	*	/	*	*	*	*			
Code no).		Α	В		С	D	Ε	F		G	Н	I	J		Κ	L	М	Ν			
Code	Code for	Variations	De	scrip	otion								•									
A, B	Program	07	Ex	Со																		
C, D	Product Sector	33	Co	ntrol	and	l indi	cato	r de	vice													
Е	Function	2	Sw	/itch	mod	lule																
F	Mounting	1	Во	Bottom																		
		3	Fro	ont																		
G	Connection	1	Sc	rew	term	inals	i															
		4	Sc	rew	term	inals	15°															
Н	Design	1	2 >	NC	С																	
		2	2 >	NO	С																	
		4	1 >	NC	C &	1 × I	NOC	;														
I	No. of conductors	0	Wi	With clamps																		
J-N	Applications	Variants with	out influence of explosion protection																			





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Switch Module Type 07-3322-***0/**** and Type 07-3324-***0/****

The Switch Modules Type 07-3322-***0/**** and Type 07-3324-***0/**** are a built-in switch with two switching elements which can be separately operated. They are suitable for bottom or front mounting and serve as a control switch.

Electrical Ratings & Technical Data	
Rated voltage, U₀/U	400/690 V
Rated insulation voltage, U _i	400/690 V
Rated current	Up to 16 A
Rated connecting capacity of terminals	0.75 mm ² - 2.5 mm ² /18 AWG - 12 AWG
Rated torque	0.4 Nm - 0.7 Nm
Service temperature range, T _s	-55°C ≤ T _s ≤ +85°C

Model I	No.																		
Type no).		0	7	-	3	3	2	*	-	*	*	*	0	/	*	*	*	*
Code no).		Α	В		С	D	Ε	F		G	Н	1	J		K	L	М	Ν
Code	Code for	Variations	Description																
A, B	Program	07	Ex	ExCo															
C, D	Product Sector	33	Co	ntrol	and	l indi	cato	r de	vice										
Е	Device	2	Sw	itch	mod	lule													
F	Mounting	2	Ra	il															
		4	Pa	Panel															
G	Connection	1	Те	rmin	als (only	for t	уре	07-3	322-	****/	****)							
		4	Те	rmin	als 1	5° (only	for t	уре (07-3	324-	****/*	****)						
Н	Design	1	2 >	NC	С														
		2	2 >	NO	С														
		4	1 >	NC	C &	1 × I	VOC	;											
	Contact	0	Sil	ver a	lloy														
		1	Go	Gold plated															
J	Cable length	0	N/A	N/A															
K-N	Number or letter for char	acteristics withou	t influ	ienc	e on	the	explo	osio	n pro	tecti	on								



Control Switch Module Type 07-3331-1***/****

The Control Switch Modules Type 07-3331-1***/****, for bottom mounting, are used as a main switch, as a control switch suitable for isolation and as a motor switch. They comprise two switch modules with a single operating unit.

Electrical Ratings & Technical Data	
Rated insulation voltage, U _i	690 V
Rated operating voltage, U _e	Up to 690 V
Rated operating current, I _e	Up to 25 A
Rated connecting capacity of terminals	0.75 mm ² - 4 mm ² /18 AWG - 12 AWG
Rated torque	0.4 Nm - 0.7 Nm
Service temperature range, T _s *	-55°C ≤ T _s ≤ +85°C
* Including self-heating rate, maximum ambient to	emperature and, if applicable, external heat
Conventional Thermal Current, Ithe	25 A (-55 °C ≤ T _a ≤ +40 °C)
	11 A (-55 °C ≤ T _a ≤ +60 °C)

Model N	Model No.																					
Type no.			0	7	-	3	3	3	1	-	1	*	*	*	/	*	*	*	*			
Code no.				В		С	D	Ε	F		G	Н	I	J		K	L	М	Ν			
Code	Code for	Variations	De	Description																		
A, B	Program	07	Ex	ExCo																		
C, D	Product Sector	33	Control and indicator device																			
E	Device	3	Со	ntrol	swi	tch																
F	Mounting	1	Во	ttom																		
G	Connection	1	Те	rmin	als																	
Н	Design	A Z	e.ç	j. 2 p	ositi	ons	mair	ntain	ed													
I, J	Switching combinations	01 99	-																			
K-N	Number or letter for charac	Number or letter for characteristics without influence on the explosion protection																				



Switch Module, 4-pole Type 07-3381-***/****

The Switch Modules, 4-pole Type 07-3381-****/**** are an Ex-component and consist 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 and which forms the explosion-proof enclosure. These switching modules are used to switch external electrical circuits.

Electric	cal Ratings & Technical I	Data																		
Rated in	nsulation voltage, Ui		690 \	V																
Rated c	perating voltage, U _e		Up to	690) V															
Rated c	perating current, I _e		Up to	25 /	Ą															
Rated o	connecting capacity of tern	ninals	0.75 mm ² - 4 mm ² /18 AWG - 12 AWG																	
Rated t	orque		0.4 Nm - 0.7 Nm																	
Service	temperature range, T _s *		-55°C	C≤T	s ≤	+85°	С													
* Includ	ing self-heating rate, maxi	mum ambient t	nt temperature and, if applicable, external heat																	
Conven	tional Thermal Current, I_{th}	е	25 A (-55 °C ≤ T _a ≤ +40 °C)																	
			11 A (-55 °C ≤ T _a ≤ +60 °C)																	
Model	No.																			
Type no).		0	7	-	3	3	8	1	-	*	*	*	*	*	/	*	*	*	*
Code n	0.		Α	В		С	D	Ε	F		(3	Η	1	J		K	L	М	Ν
Code	Code for	Variations	De	scrip	tio	n														
A, B	Program	07	Ex	Со																
C, D	Product Sector	33	Со	ntrol	an	d ind	icator	dev	ice											
E	Device	8	Sw	itch	mo	dule;	4-ро	е												
F	Mounting	1	Bo	ttom	mo	ountir	ıg; DI	N-ra	il											
G	Design	1	4 ×	(NC	С															
		2	3 ×	NC	C 8	≩1×	NOC													
		3	2 ×	NC	C 8	& 2 ×	NOC													
		4	4 × NOC																	
		5	1 x NCC & 3 x NOC																	
H-N	Number or letter for characteristics without influence on the explosion protection																			



Switch Module Type 07-3382-***/****

The Switch Modules Type 07-3382-****/**** are a built-in switch with four switching elements which can be separately operated. They are suitable for bottom or front mounting and serve as a control switch.

Electrical Ratings & Technical Data	
Rated voltage, U ₀ /U	400/690 V
Rated insulation voltage, U _i	400/690 V
Rated current	Up to 25 A
Rated connecting capacity of terminals	0.75 mm ² - 4 mm ² /18 AWG - 12 AWG
Rated torque	0.4 Nm - 0.7 Nm
Service temperature range, T _s	-55°C ≤ T _s ≤ +85°C

Model N	No.																				
Type no).		0	7	-	3	3	8	2	-	*	*	*	*	/	*	*	*	*		
Code no	Code no.					С	D	Ε	F		G	Н	1	J		K	L	М	Ν		
Code	Code for	Variations	Description																		
A, B	Program	07	Ex	Со																	
C, D	Product Sector	33	Со	ntrol	and	l indi	cato	r de	evice												
E	Device	8	Sw	itch	mod	lule 4	1-pol	le													
F	Mounting	2	Ra	il																	
G	Design	1	4 ×	NC	С																
		2	3 ×	NC	C &	1 × I	VOC	;													
		3	2 ×	NC	C &	2 × I	VOC	;													
		4	4 ×	4 × NOC																	
I		5	1 ×	NC	C &	3 × I	VOC	;	•	•	•		•	•	•			•			
H-N	Number or letter for chara	cteristics without	influ	ienc	e on	the	explo	osio	n pro	tecti	on										

Conditions of Manufacture

There are no conditions of Manufacture.

Schedule of Limitations

The following conditions relate to safe installation and/or use of the equipment.

- 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 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.
- iii. The modules as Ex-Components were type tested according to IEC 60079-1 "Equipment protection by flameproof enclosures d" for an ambient temperature of up to +85°C. The actual maximum rated current of the modules must be determined in the type test of the electrical equipment concerned. The maximum service temperature of the modules must be considered.