



# EU Type Examination Certificate CML 17ATEX1105U Issue 4

- 1 Components intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Component Control Switch Type 07-333\*-\*\*\*\*/\*\*\*\*, Switch Module Type 07-332\*-\*\*\*\*/\*\*\*\* and Type 07-3382-\*\*\*\*/\*\*\*\*, Switch Module, 4-pole Type 07-3381-\*\*\*\*/\*\*\*\*
- 3 Manufacturer Bartec GmbH
- 4 Address Max-Eyth-Straße 16, 97980 Bad Mergentheim, Germany
- 5 The component is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V., Chamber of Commerce No 6738671, Koopvaardijweg 32, 4906CV Oosterhout The Netherlands, Notified Body Number 2776, 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 component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 12.

- 7 The 'U' suffix after the certificate number indicates that the component is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018

EN 60079-1:2014

EN IEC 60079-7:2015/A1:2018

10 The equipment shall be marked with the following:

Ex db eb I Mb

-55°C ≤ Ta ≤ +40°C (16 A) -55°C ≤ Ta ≤ +60°C (11 A) -55°C ≤ Ts ≤ +85°C

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Ex db eb IIC Gb

-55°C ≤ Ta ≤ +40°C (16 A) -55°C ≤ Ta ≤ +60°C (11 A) -55°C ≤ Ts ≤ +85°C

R C Marshall Operations Manager





### 11 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, U <sub>i</sub>	690 V
Rated operating voltage, Ue	Up to 400 V
Rated operating current, Ie	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, Ts *	-55°C ≤ T₅ ≤ +85°C
* Including self-heating rate, maximum ambient te	emperature and, if applicable, external heat
Conventional Thermal Current, Ithe	16 A (-55 °C ≤ T <sub>a</sub> ≤ +40 °C)
	11 A (-55 °C $\leq$ T <sub>a</sub> $\leq$ +60 °C)

Model	No.																						
Type no	Э.		0	7	-	3	3	2	*	-	*	*	0	*	/	*	*	*	*				
Code n	0.		Α	В		С	D	Е	F		G	Н	1	J		Κ	L	М	Ν				
Code	Code for	Variations	Description																				
А, В	Program	07	Ex	Co																			
C, D	Product Sector	33	Control and indicator device																				
E	Function	2	Switch module							Switch module													
F	Mounting	1	Bottom																				
		3	Fro	ont																			
G	Connection	1	Sc	rew 1	erm	inals																	
		4	Sc	rew 1	erm	inals	15°																
Н	Design	1	2 ×	K NC	С																		
		2	2 ×	NO	С																		
		4	1 × NCC & 1 × NOC																				
I	No. of conductors	0	Wi	th cla	amp	s																	
J-N	Applications	Variants with	out in	fluer	nce (	of ex	plosi	on p	rotec	tion													





## 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, U <sub>0</sub> /U	400/690 V
Rated insulation voltage, U <sub>i</sub>	400/690 V
Rated current	Up to 16 A
Rated connecting capacity of terminals	0.75 mm <sup>2</sup> - 2.5 mm <sup>2</sup> /18 AWG - 12 AWG
Rated torque	0.4 Nm - 0.7 Nm
Service temperature range, Ts	$-55^{\circ}C \le T_{s} \le +85^{\circ}C$

Model	No.																		
Type no	Э.		0	7	-	3	3	2	*	-	*	*	*	0	/	*	*	*	*
Code n	0.		Α	В		С	D	Е	F		G	Н	1	J		κ	L	М	Ν
Code	Code for	Variations	Description																
А, В	Program	07	ExCo																
C, D	Product Sector	33	Control and indicator device																
Е	Device	2	Switch module																
F	Mounting	2	Ra	il															
		4	Ра	nel															
G	Connection	1	Te	rmina	als (	only	for ty	/pe C	)7-33	322-	****/*	***)							
		4	Te	rmina	als 1	15° (d	only f	or ty	pe 0	7-33	324-*	***/**	**)						
Н	Design	1	2 x	NC	С														
		2	2 x	NO	С														
		4	1 x		C &	1 × 1	NOC												
I	Contact	0	Silver alloy																
		1	Gold plated																
J	Cable length	0	N/A	4															
K-N	Number or letter for char	acteristics witho	ut infl	luend	ce o	n the	exp	losio	n pro	otec	tion								





## 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 <sub>i</sub>	690 V
Rated operating voltage, Ue	Up to 690 V
Rated operating current, Ie	Up to 25 A
Rated connecting capacity of terminals	0.75 mm² - 4 mm²/18 AWG - 12 AWG
Rated torque	0.4 Nm - 0.7 Nm
Service temperature range, Ts *	-55°C ≤ T <sub>s</sub> ≤ +85°C
* Including self-heating rate, maximum ambient te	mperature and, if applicable, external heat
Conventional Thermal Current, Ithe	25 A (-55 °C $\leq$ T <sub>a</sub> $\leq$ +40 °C)
	11 A (-55 °C $\leq$ T <sub>a</sub> $\leq$ +60 °C)

Model I	Model No.																		
Type no	Type no.			7	-	3	3	3	1	-	1	*	*	*	/	*	*	*	*
Code no	0.		Α	В		С	D	Е	F		G	Н	1	J		κ	L	М	Ν
Code	Code for	Variations	Description																
А, В	Program	07	ExCo																
C, D	Product Sector	33	Control and indicator device																
E	Device	3	Co	ntrol	swi	tch													
F	Mounting	1	Bottom																
G	Connection	1	Te	rmina	als														
Н	Design	A Z	e.g. 2 positions maintained																
I, J	Switching combinations	01 99	-																
K-N	K-N 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.

Electrical Ratings & Technical Data	
Rated insulation voltage, Ui	690 V
Rated operating voltage, Ue	Up to 690 V
Rated operating current, Ie	Up to 25 A
Rated connecting capacity of terminals	0.75 mm² - 4 mm²/18 AWG - 12 AWG
Rated torque	0.4 Nm - 0.7 Nm
Service temperature range, T <sub>s</sub> *	$-55^{\circ}C \le T_{s} \le +85^{\circ}C$
* Including self-heating rate, maximum ambient	temperature and, if applicable, external heat
Conventional Thermal Current, I <sub>the</sub>	25 A (-55 °C $\leq$ T <sub>a</sub> $\leq$ +40 °C) 11 A (-55 °C $\leq$ T <sub>a</sub> $\leq$ +60 °C)





Model I	No.																		
Type no	Э.		0	7	-	3	3	8	1	-	*	*	*	*	/	*	*	*	*
Code no	0.		Α	В		С	D	Е	F		G	Н	1	J		к	L	М	Ν
Code	Code for	Variations	Description																
А, В	Program	07	ExCo																
C, D	Product Sector	33	Control and indicator device																
Е	Device	8	Switch module; 4-pole																
F	Mounting	1	Во	ttom	mou	Inting	g; Dll	N-rai	I										
G	Design	1	4 ×	(NC	С														
		2	3 ×	(NC	C &	1 × N	100												
		3	2 >	(NC	C & 2	2 × N	100												
		4	4 × NOC																
		5	1 ×	(NC	C & :	3 × N	IOC												
H-N	Number or letter for ch	aracteristics with	nout i	nflue	nce	on th	ne ex	plosi	ion p	rote	ction								

## 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 <sub>0</sub> /U	400/690 V							
Rated insulation voltage, U <sub>i</sub>	400/690 V							
Rated current	Up to 25 A							
Rated connecting capacity of terminals	0.75 mm² - 4 mm²/18 AWG - 12 AWG							
Rated torque	0.4 Nm - 0.7 Nm							
Service temperature range, Ts	-55°C ≤ T <sub>s</sub> ≤ +85°C							

Model	No.																		
Type no	Э.		0	7	-	3	3	8	2	-	*	*	*	*	/	*	*	*	*
Code n	0.		Α	В		С	D	Е	F		G	Н	1	J		κ	L	М	Ν
Code	Code for	Variations	Description							<u></u>									
Α, Β	Program	07	ExCo																
C, D	Product Sector	33	Control and indicator device																
Е	Device	8	Switch module 4-pole																
F	Mounting	2	Ra	il															
G	Design	1	4 x	NC	С														
		2	3 x	NC	C &	1 × 1	VOC												
		3	2 x	NC	C &	2 × 1	100												
		4	4 × NOC																
		5	1 ×	NC	C &	3 × 1	JOC												
H-N	Number or letter for chara	cteristics without	ut infl	uenc	ce o	n the	expl	osio	n pro	otect	tion								





## Variation 1

This variation introduces the following modification:

i. To expand the tables in the product description.

### Variation 2

This variation introduces the following modification:

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

### Variation 3

This variation introduces the following modifications:

- i. To update the certificate to the latest editions of EN IEC 60079-0 and EN IEC 60079-7.
- ii. Addition to the schedule of limitations.
- iii. Change of some electrical ratings and technical information.

### 12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	09 Aug 2017	R2271A/00	Issue of Prime Certificate
1	03 Aug 2018	R11858A/00	Introduction of Variation 1
2	12 Dec 2018	R12059A/00	Transfer from CML UK to CML BV Certificate
3	01 Feb 2019	R12228A/00	Introduction of Variation 2
4	21 Jun 2021	R13724A/00	Introduction of Variation 3

Note: Drawings that describe the equipment or component are listed in the Annex.

## 13 Conditions of Manufacture

There are no conditions of Manufacture.

#### 14 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 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.
- iii. The modules as Ex-Components were type tested according to EN 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.

# **Certificate Annex**

Certificate Number	CML 17ATEX1105U
Equipment	Control Switch Type 07-333*-****/**** Switch Module Type 07-332*-****/**** and Type 07-3382-****/**** Switch Module, 4-pole Type 07-3381-****/****
Manufacturer	Bartec GmbH



The following documents describe the equipment or component defined in this certificate:

#### Issue 0

Drawing No.	Sheets	Rev.	Approved date	Title
01-3321-650001	1 of 1	А	09 Aug 2017	Schaltmodul / Switch Module
01-3331-6501 St	1 to 2	В	09 Aug 2017	Steuerschalter / Control Switch
01-3331-6501	1 of 1	А	09 Aug 2017	Steuerschalter / Control Switch
01-3323-650001 St	1 to 2	А	09 Aug 2017	Schaltmodul / Switch Module
01-3323-4B0015	1 of 1	А	09 Aug 2017	Schaltmodul / Switch Modul
01-3321-6502	1 to 2	А	09 Aug 2017	Schaltmodul / Switch Module

#### Issue 1

No drawings issued.

## Issue 2

No drawings issued.

#### Issue 3

Drawing No.	Sheets	Rev.	Approved date	Title
01-3381-650005	1 of 1	-	01 Feb 2019	Steuerschalter 4-polig
01-3381-650002	1 of 1	-	01 Feb 2019	Schaltmodul 4-polig
01-3381-650001	1 of 1	-	01 Feb 2019	Schaltmodul 4-polig

### Issue 4

Drawing No.	Sheets	Rev.	Approved date	Title
01-3321-6502 St	1 of 1	В	21 Jun 2021	Switch module Type 07-332*-1*00/****
01-3322-6A0002	1 of 1	-	21 Jun 2021	Minimum content of marking Switch module Type 07-332*-***0/****
01-3322-650001	1 of 1	-	21 Jun 2021	Switch module Type 07-3322-1**0/****
01-3322-650001- BOM	1 of 1	-	21 Jun 2021	Switch module Type 07-3322-1**0/****
01-3322-650002	1 of 1	-	21 Jun 2021	Clamp, rail and contact Type 07-33**-****/****
01-3322-650002- BOM	1 of 1	-	21 Jun 2021	Clamp, rail and contact Type 07-33**-****/****
01-3322-650003	1 of 1	-	21 Jun 2021	Switch module Type 07-332*-*100/****
01-3323-650001 St	1 of 1	В	21 Jun 2021	Switch module Type 07-3323-4**0/****

# **Certificate Annex**

Certificate Number	CML 17ATEX1105U
Equipment	Control Switch Type 07-333*-****/**** Switch Module Type 07-332*-****/**** and Type 07-3382-****/**** Switch Module, 4-pole Type 07-3381-****/****
Manufacturer	Bartec GmbH



Approved Title Drawing No. Sheets Rev. date Switch module Type 07-3324-4\*\*0/\*\*\*\* 01-3324-650001 1 of 1 21 Jun 2021 -Switch module Type 07-3324-4\*\*0/\*\*\*\* 01-3324-650001 1 of 1 21 Jun 2021 -BOM Switch module Type 07-3324-4\*\*0/\*\*\*\* 01-3324-650001-HLP 1 of 1 21 Jun 2021 -01-3382-650001 1 of 1 21 Jun 2021 Switch module 4-pole -<u>Type 0</u>7-3382-\*\*\*\*/\*\*\*\* 01-3382-6A0001 1 of 1 21 Jun 2021 Minimum content of marking -Switch module Type 07-3382-\*\*\*\*/\*\*\*\* 01-3382-650001-1 of 1 21 Jun 2021 Switch module 4-pole \_ Type 07-3382-\*\*\*\*/\*\*\*\* BOM