

IECEx Certificate of Conformity

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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 22.0014U**

Status: Current Issue No: 0

Date of Issue: 2023-05-26

BARTEC GmbH Applicant: Max-Eyth- Straße 16

97980 Bad Mergentheim

Germany

Switch Module Type 07-332*-***0/**** and Type 07-3382-***/****, Control Switch Module Type 07-3332-1***/****, Ex Component:

Illuminated Indicator Module Type 07-335*-***0/****, Illuminated Push Button Module Type 07-336*-***0/****,

Potentiometer Module Type 07-337*-*D*0/****

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).

Flameproof (Ex db), Increased Safety (Ex eb); Flameproof (Ex db), Intrinsically Safe (Ex ia) Type of Protection:

Marking: Ex db eb I Mb, Ex db eb IIC Gb

> Only applicable to switch, Illuminated indicator, illuminated push button and potentiometer module types:- 07-332*-***0/ ***, 07-3332-1***/****, 07-3382-****/****, 07-335*-*1*0/****, 07-336*-*1*0/****, 07-336*-*2*0/****, 07-336*-*7*0/****, 07-336*-*7*0/****

Ex db ia I Mb, Ex db ia IIC Gb

Only applicable to Illuminated indicator and illuminated push button module types:- 07-335*-*4*0/****, 07-336*-*5*0/****

S. Roumbedakis

Kambedatz

and 07-336*-*6*0/***

Ts= -55 °C to +85 °C (See Schedule of Limitations)

Approved for issue on behalf of the IECEx

Certification Body:

Position: **Technical Manager**

Signature:

(for printed version)

2023-05-26 (for printed version)

1. This certificate and schedule may only be reproduced in full.

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 history:

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: 2023-05-26 Issue No: 0

Manufacturer: BARTEC GmbH

Max-Eyt-Straße 16 97980 Bad Mergentheim

Germany

Manufacturing BARTEC GmbH

locations: Max-Eyt-Straße 16 97980 Bad Mergentheim

Germany

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 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 60079-0:2017 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 60079-7:2017 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 component listed has successfully met the examination and test requirements as recorded in:

Test Report:

GB/CML/ExTR22.0117/00

Quality Assessment Report:

DE/TUN/QAR06.0017/14



IECEx Certificate of Conformity

Certificate No.:	IECEx CML 22.0014U	Page 3 of 3								
Date of issue:	2023-05-26	Issue No: 0								
Ex Component(s) co	overed by this certificate is described below:									
Defeate Contificate										
Refer to Certificate Annex for Product Description and Ratings.										
SCHEDULE OF LIMI	TATIONS:									
Refer to Certificate	Annex for Schedule of Limitations.									
Annex:										
	Issue 0 Certificate Annex_1.pdf									
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Annexe to: IECEx CML 22.0014U Issue 0

Applicant: Bartec GmbH

Apparatus: Switch Module Type 07-332*-***0/**** and Type 07-3382-****/****,

Control Switch Module Type 07-3332-1***/****,

Illuminated Indicator Module Type 07-335*-***0/****, Illuminated Push Button Module Type 07-336*-***0/****,

Potentiometer Module Type 07-337*-*D*0/****

Description

Switch module type 07-332*-***0/****

The switch module is used in hazardous areas where machine functions are to be activated by pressing a button or actuating a switch.

The switch module is designed for mounting onto a mounting rail or for mounting without tools onto an actuating element. The connection is established by means of terminals.

Type no.	0	7	-	3	3	2	*	-	*	*	*	0	1	*	*	*	*
Code no.	Α	В		С	D	Е	F		G	Н	I	J		K	L	M	N

<u>Code</u>	Code for	Variations	<u>Description</u>
A, B	Basic program	07	ExCo
C, D	Product sector	33	Control and indicator device
E	Device	2	Switch module
F	Mounting	2	Rail
		4	Panel
G	Connection	1	Terminals (only for type 07-3322-***/****)
		4	Terminals 15° (only for type 07-3324-***/****)
Н	Design	1	2 × NCC
		2	2 × NOC
		4	1 × NCC & 1 × NOC
ı	Contact	0	Silver alloy
		1	Gold plated
J	Cable length	0	N/A
K-N	Number or letter	for character	ristics without influence on the explosion protection



Certificate Annex IECEx Version: 9.0 Approval: Approved Eurofins E&E CML Limited Newport Business Park New Port Road Ellesmere Port CH65 4LZ

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The switch modules can be used to switch non-intrinsically safe electrical circuits:

Rated voltage	400/690 V
Rated insulation voltage	400/690 V
Rated current	up to 16 A
Maximum ambient temperature only for protection by flameproof enclosure "d"	+85 °C
Rated connecting capacity of terminals	0.75 - 2.5 mm ²
Rated torque	0.4 - 0.7 Nm

Switch module type 07-3382-*/******

The switch module is used in hazardous areas where machine functions are to be activated by pressing a button or actuating a switch.

The switch module is designed for mounting onto a mounting rail. The connection is established by means of terminals.

Type no	o. 0 7 o. A B	- 3 3 C D	8 2 - E F	* G	* H	* I	* J	1	* K	* L	* M	* N		
<u>Code</u>	Code for	<u>Variations</u>	<u>Descriptio</u>	<u>n</u>										
A, B	Basic program	07	ExCo											
C, D	Product sector	33	Control and indicator device											
E	Device	8	Switch mod	lule 4	-pole									
F	Mounting	2	Rail											
G	Design	1	4 × NCC											
		2	3 × NCC &	1 × N	ОС									
		3	2 × NCC &	2 × N	ОС									
		4	4 4×NOC											
		5	1 × NCC &	3 × N	ОС									
H-N	Number or letter for characteristics without influence on the explosion protection													



The switch modules can be used to switch non-intrinsically safe electrical circuits:

Rated voltage	400/690 V
Rated insulation voltage	400/690 V
Rated current	up to 25 A
Maximum ambient temperature only for protection by flameproof enclosure "d"	+85 °C
Rated connecting capacity of terminals	0.75 - 4 mm ²
Rated torque	0.4 - 0.7 Nm

Control switch module type 07-3332-1***/****

The control switch module is used in hazardous areas where machine functions are to be activated by actuating a switch.

The control switch module is designed for mounting onto a mounting rail. The connection is established by means of terminals.

Type no.	0	7	-	3	3	3	2	-	1	*	*	*	1	*	*	*	*
Code no.	Α	В		С	D	Е	F		G	Н	I	J		K	L	M	N

<u>Code</u>	Code for	Variations	<u>Description</u>					
A, B	Basic program	07	ExCo					
C, D	Product sector	33	Control and indicator device					
E	Device	3	Control switch module					
F	Mounting	2	Rail					
G	Connection	1	Terminals					
H-N	Number or letter for characteristics without influence on the explosion protection							

Ratings

The switch modules can be used to switch non-intrinsically safe electrical circuits:

Rated voltage	400/690 V
Rated insulation voltage	400/690 V
Rated current	up to 25 A
Maximum ambient temperature only for protection by flameproof enclosure "d"	+85 °C
Rated connecting capacity of terminals	0.75 - 4 mm ²
Rated torque	0.4 - 0.7 Nm



Illuminated indicator module type 07-335*-***0/****

The illuminated indicator module is used in hazardous areas where the functional status of the respective machine is to be visually displayed.

The illuminated indicator module is designed for mounting onto a mounting rail or for mounting without tools onto an actuating element. The connection is established by means of terminals.

Type no.	0	7	-	3	3	5	*	-	*	*	*	0	1	*	*	*	*
Code no.	Α	В		С	D	Ε	F		G	Н	I	J		K	L	M	N

<u>Code</u>	Code for	Variations	<u>Description</u>						
A, B	Basic program	07	ExCo						
C, D	Product sector	33	Control and indicator device						
E	Device	5	Illuminated indicator module						
F	Mounting	2	Rail						
		4	Panel						
G	Connection	1	Terminals (only for type 07-3352-***/****)						
		4	Terminals 15° (only for type 07-3354-***/****)						
Н	Design	1	Increased safety "e"						
		4	Intrinsic safety "i"						
I	Color	1	Red						
		2	Green						
		3	Yellow						
		4	White						
		5	Blue						
J	Cable length	0	N/A						
K-N	Number or letter for characteristics without influence on the explosion protection								



Type 07-335*-*1*0/****

The illuminated indicator modules can be used to indicate and switch non-intrinsically safe electrical circuits

Rated voltage	230 V
Working voltage	250 V
Rated operating voltage	AC/DC 12 V to 230 V
Power consumption	up to 1 W
Rated current	up to 1 A
Maximum ambient temperature only for protection by flameproof enclosure "d"	+85 °C
Rated connecting capacity of terminals	0.75 - 2.5 mm ²
Rated torque	0.4 - 0.7 Nm

Type 07-335*-*4*0/****

The illuminated indicator modules can be used to indicate and switch a circuit in type of protection Intrinsic Safety Ex ia IIC:

Rated voltage, U	30 V
Rated operating voltage, U _e	DC 12 V to 30 V
Maximum ambient temperature only for protection by flameproof enclosure "d"	+85 °C
Rated connecting capacity of terminals	0.75 - 2.5 mm ²
Rated torque	0.4 - 0.7 Nm
Maximum values:	$\begin{array}{c} U_i = 30 \text{ V} \\ I_i = 150 \text{ mA} \\ P_i = 1 \text{ W} \\ C_i = 37 \text{ nF} \\ L_i - \text{negligibly low} \end{array}$



Illuminated push button module type 07-336*-***0/****

The illuminated push button module is used in hazardous areas where machine functions are to be activated by pressing a button and the corresponding functional status of the respective machine is to be visually displayed.

The illuminated push button module is designed for mounting onto a mounting rail or for mounting without tools onto an actuating element. The connection is established by means of terminals.

Type no.	0	7	-	3	3	6	*	-	*	*	*	0	1	*	*	*	*	
Code no.	Α	В		С	D	Ε	F		G	Н	I	J		K	L	M	N	

<u>Code</u>	Code for	Variations	<u>Description</u>
A, B	Basic program	07	ExCo
C, D	Product sector	33	Control and indicator device
E	Device	6	Illuminated push button module
F	Mounting	2	Rail
		4	Panel
G	Connection	1	Terminals (only for type 07-3362-***/****)
		4	Terminals 15° (only for type 07-3364-***/****)
Н	Design	1	Increased safety "e", 1 × NCC, low voltage
		2	Increased safety "e", 1 × NOC, low voltage
		5	Intrinsic safety "i", 1 × NCC
		6	Intrinsic safety "i", 1 × NOC
		7	Increased safety "e", 1 × NCC
		8	Increased safety "e", 1 × NOC
I	Color	1	Red
		2	Green
		3	Yellow
		4	White
		5	Blue
J	Cable length	0	N/A
K-N	Number or letter	for character	ristics without influence on the explosion protection



Types; 07-336*-*7*0/****, and 07-336*-*8*0/****

The illuminated push button modules can be used to indicate and switch non-intrinsically safe electrical circuits:

Rated voltage	230 V
Working voltage	250 V
Rated insulation voltage	300 V
Rated operating voltage, (indicator)	AC/DC 12 V to 230 V
Power consumption (indicator)	up to 1 W
Rated current	up to 1 A
Maximum ambient temperature only for protection by flameproof enclosure "d"	+85 °C
Rated connecting capacity of terminals	0.75 - 2.5 mm ²
Rated torque	0.4 - 0.7 Nm

Types; 07-336*-*5*0/****, and 07-336*-*6*0/****

The illuminated push button modules can be used to indicate and switch a circuit in type of protection Intrinsic Safety Ex ia IIC:

Rated voltage, U	30 V
Rated insulation voltage, Ui	30 V
Rated operating voltage, U _e (indicator)	DC 12 V to 30 V
Maximum ambient temperature only for protection by flameproof enclosure "d"	+85 °C
Rated connecting capacity of terminals	0.75 - 2.5 mm ²
Rated torque	0.4 - 0.7 Nm
Maximum values per circuit:	$\begin{array}{c} U_i = 30 \text{ V} \\ I_i = 150 \text{ mA} \\ P_i = 1 \text{ W} \\ C_i \text{ (indicator)} = 37 \text{ nF} \\ C_i \text{ (switch)} - \text{negligibly low} \\ L_i - \text{negligibly low} \end{array}$



Types; 07-336*-*1*0/****, and 07-336*-*2*0/****

The illuminated push button modules can be used to indicate and switch a non-intrinsically safe electrical circuits:

Rated voltage	30 V
Rated insulation voltage	30 V
Rated operating voltage (indicator)	DC 12 V to 30 V
Power consumption (indicator)	up to 1 W
Rated current	up to 0.25 A
Maximum ambient temperature only for protection by flameproof enclosure "d"	+85 °C
Rated connecting capacity of terminals	0.75 - 2.5 mm ²
Rated torque	0.4 - 0.7 Nm

Potentiometer module type 07-337*-*D*0/****

The potentiometer module is used in hazardous areas where machine functions are to be controlled by adjustable voltage dividers.

The potentiometer module is designed for mounting onto a mounting rail or for mounting without tools onto an actuating element. The connection is established by means of terminals.

Type no.	0	7	-	3	3	7	*	-	*	D	*	0	1	*	*	*	*
Code no.	Α	В		С	D	Е	F		G	Н	I	J		K	L	M	N

<u>Code</u>	Code for	Variations	<u>Description</u>
A, B	Basic program	07	ExCo
C, D	Product sector	33	Control and indicator device
E	Device	7	Potentiometer module
F	Mounting	2	Rail
		4	Panel
G	Connection	1	Terminals (only for type 07-3372-***/****)
		4	Terminals 15° (only for type 07-3374-****/****)
Н	Design	D	Potentiometer
I	Number or letter	for character	ristics without influence on the explosion protection
J	Cable length	0	N/A
K-N	Number or letter	for character	ristics without influence on the explosion protection



The potentiometer modules can be used to switch non-intrinsically safe electrical circuits:

Rated voltage 250 V
Rated insulation voltage 250 V
Rated power dissipation up to 1 W
Maximum ambient temperature only for protection by flameproof enclosure "d" +85 °C
Rated connecting capacity of terminals 0.75 - 2.5 mm²
Rated torque 0.4 - 0.7 Nm

Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

i. Where the product incorporates certified parts or safety critical components, the manufacturer of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.

Specific Conditions of Use

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

- i. The modules that complies with IEC 60079-7, shall be installed in an enclosure which meets the requirements of a recognised type of protection as specified in Section 1 of IEC 60079-0. When the modules are installed in an increased safety enclosure that complies with IEC 60079-7, the creepage and clearance distances shall comply with the standard requirements. The actual maximum rated current resp. power dissipation of the modules shall be determined in the type test of the electrical equipment concerned. When the module is used in a mine susceptible to firedamp (Group I), the maximum rated current shall not exceed 16 A.
- ii. The modules that complies with IEC 60079-11, shall be installed in such a way that it is protected by an enclosure that complies at least with the requirements of IEC 60079-0 clause 26.4.2 and excludes the risk of mechanical damage. The separation distances to the module terminals shall be comply with the standard requirements.
- iii. The service temperature of the modules shall be within -55 °C to +85 °C. The service temperature of the locking device for the modules type 07-33*4-4***/**** shall not exceed +70 °C.
- iv. Each terminal of the module is limited to one conductor per clamping unit.
- v. The modules shall be installed in accordance with manufacturers documentation



Components covered by Ex Certificates issued to older editions of Standards

None