

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 17.0046U

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Certificate history:

Status:

Current

Issue No: 2

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:

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

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", Intrinsic Safety "ia"

Marking: Ex db eb I Mb

Ex db eb ia I Mb Ex db ia I Mb Ex db ia IIC Gb Ex db eb IIC Gb Ex db eb ia IIC Gb

-55°C ≤ Ta ≤ +50°C -55°C ≤ Ta ≤ +60°C* -55°C ≤ Ts ≤ +85°C

*Note: if rated operating voltage ≤ 26.4 V

Approved for issue on behalf of the IECEx

Certification Body:

R C Marshall

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: 2

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 60079-11:2011 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 equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

GB/CML/ExTR17.0124/00 GB/CML/ExTR18.0167/00 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:

The illuminated indicator module is a built-in appliance and serves as a signal lamp. The luminescent element is available in a variety of signal colours

The illuminated push button module is an illuminated indicator with the function of a control switch. The connection is via the integrated terminals.

Refer to Annex for full description.

SCHEDULE OF LIMITATIONS:

See 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 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 17.0046U Iss. 2 Certificate Annex_1.pdf

Annexe to: IECEx CML 17.0046U Issue 2

Applicant: Bartec GmbH

Apparatus: Illuminated Indicator Module Type 07-335*-

******/******

Illuminated Push Button Module Type 07-336*-

******/******



Description

Illuminated Indicator Module Type 07-3351-***/**** and Type 07-3353-****/****

The Illuminated Indicator Modules Type 07-3351-****/**** and Type 07-3353-****/****, are a built-in appliance and serve as a signal lamp. The luminescent element being available in a variety of signal colours.

Electrical Ratings & Technical Data	
Non-intrinsically safe (IS) versions	
Rated voltage	300 V
Rated operating voltage, U _e	AC 12 V - 250 V; DC 12 V - 60 V
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 *	$-55^{\circ}\text{C} \le \text{T}_{\text{s}} \le +85^{\circ}\text{C}$
* Including self-heating rate, maximum ambier	nt temperature and, if applicable, external heat
Ambient temperature, T _a	$-55^{\circ}\text{C} \le \text{T}_{\text{a}} \le +50^{\circ}\text{C}$
	-55°C ≤ T _a ≤ $+60$ °C, if U _e ≤ 26.4 V
Intrinsically safe (IS) versions	
Suitable type code	07-335*-*4**/****
Maximum operating values, per module	U _i = 30 V
	I_i = 150 mA
	P_i = 1 W
	C _i – Negligible
	L _i – Negligible
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 *	$-55^{\circ}\text{C} \le \text{T}_{\text{s}} \le +85^{\circ}\text{C}$
* Including self-heating rate, maximum ambier	nt temperature and, if applicable, external heat
Ambient temperature, T _a	-55°C ≤ T _a ≤ +60°C





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Model I	No.	_																	
Type no).		0	7	-	3	3	5	*	-	*	*	*	*	/	*	*	*	*
Code no	0.		Α	В		С	D	Ε	F		G	Н	1	J		K	L	М	Ν
Code	Code for	Variations	Description																
A, B	Program	07	ExCo																
C, D	Product Sector	33	Control and indicator device																
Е	Device	5	Illuminated indicator module																
F	Mounting	1	Bottom																
		3	Front																
G	Connection	1	Screw terminals																
		4	Screw terminals 15°																
Н	Design	1	AC 12 V - 250 V; DC 12 V - 60 V																
		4	AC	/DC	12 \	/ - 2	50 V	'											
1	Colour	1	Re	ed															
		2	Gr	een															
		3	Ye	llow															
		4	WI	nite															
		5	Blu	ıe															
J-N	Number or letter for cha	aracteristics withou	ıt influ	ienc	e on	the	explo	osior	n pro	tecti	on								



Illuminated Indicator Module Type 07-3352-***0/**** and Type 07-3354-***0/****

The Illuminated Indicator Modules Type 07-3352-***0/**** and Type 07-3354-***0/****, are a built-in appliance and serve as a signal lamp. The luminescent element being available in a variety of signal colours.

Electrical Ratings & Technical Data	
Non-intrinsically safe (IS) versions	
Rated voltage, U	230 V
Rated operating voltage, U _e	AC/DC 12 V - 230 V
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
Intrinsically safe (IS) versions	
Rated voltage, U	30 V
Rated operating voltage, U _e	DC 12 V - 30 V
Rated connecting capacity of terminals	0.75 mm² - 2.5 mm²/18 AWG - 12 AWG
Rated torque	0.4 Nm - 0.7 Nm
Maximum values per circuit	U_i = 30 V
	I_i = 150 mA
	P_i = 1 W
	$C_i = 37 \text{nF}$
	L _i – Negligible
Service temperature range, T _s	-55°C ≤ T _s ≤ +85°C



Model I	No																		
Type no).		0	7	-	3	3	5	*	-	*	*	*	0	/	*	*	*	*
Code no	0.		Α	В		С	D	Ε	F		G	Н	I	J		K	L	М	٨
Code	Code for	Variations	Description																
2	Program	07	ExCo																
C, D	Product Sector	33	Control and indicator device																
Е	Device	5	Illuminated indicator module																
F	Mounting	2	Ra	Rail															
		4	Panel																
G	Connection	1	Te	rmin	als (only	for t	уре	07-3	352-	****/	****)							
		4	Te	rmin	als 1	5° (d	only	for ty	/pe (07-3	354-	****/*	****)						
Н	Design	1	Inc	reas	ed s	afety	/ "e"												
		4	Int	rinsi	saf	ety "	i"												
1	Colour	1	Re	ed															
		2	Gr	een															
		3	Ye	llow															
		4	WI	nite															
		5	Blu	ıe															
J	Cable length	0	N/	Α															
K-N	Number or letter for c	haracteristics withou	ıt influ	ienc	e on	the	explo	osior	n pro	tecti	on								



Illuminated Push Button Module Type 07-3361-****/**** and Type 07-3363-****/****

The Illuminated Push Button Modules Type 07-3361-****/**** and Type 07-3363-****/****, are illuminated indicators with the function of a control switch. Connection is made via the integrated terminals.

Electrical Ratings & Technical Data										
Non-intrinsically safe (IS) versions										
Rated voltage	300 V									
Rated operating voltage, U _e	AC 12 V - 250 V; DC 12 V - 60 V									
Rated insulation voltage, U _i (Contacts)	300 V									
Utilization category (Contacts)	230 V 24 V									
	1 A 0.25 A AC-15 DC-13									
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 ambient to	emperature and, if applicable, external heat									
Ambient temperature, T _a	-55 °C ≤ T _a ≤ +50 °C									
	-55 °C ≤ T_a ≤ +60 °C, if U_e ≤ 26.4 V									
Intrinsically safe (IS) versions										
Suitable type code	07-336*-*5**/***									
	07-336*-*6**/****									
Maximum operating values, per module	U _i = 30 V									
	I_i = 150 mA									
	P _i = 1 W									
	C _i – Negligible									
	L _i – Negligible									
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									
* Including self-heating rate, maximum ambient to	emperature and, if applicable, external heat									
Ambient temperature, T _a	-55 °C ≤ T _a ≤ +60 °C									



Model I	No.	_																	
Type no).		0	7	-	3	3	6	*	-	*	*	*	*	/	*	*	*	*
Code no	0.		Α	В		С	D	Ε	F		G	Н	1	J		K	L	Μ	Ν
Code	Code for	Variations	Description																
A, B	Program	07	ExCo																
C, D	Product Sector	33	Control and indicator device																
E	Device	6	Illuminated push button module																
F	Mounting	1	Bottom																
		3	Fro	ont															
G	Connection	1	Sc	rew t	term	inals													
		4	Screw terminals 15°																
Н	Design	5	AC/DC 12 V - 250 V; 1 × NCC																
		6	AC/DC 12 V - 250 V; 1 × NOC																
		7	AC	12	V - 2	250 V	′; DC	12	V - 6	60 V;	; 1 ×	NCC)						
		8	AC	12	V - 2	250 V	′; DC	12	V - 6	60 V;	; 1 ×	NO)						
I	Colour	1	Re	ed															
		2	Gr	een															
		3	Ye	llow															
		4	Wł	nite															
		5	Blu	ıe															
J-N	Number or letter for ch	naracteristics withou	t influ	ience	e on	the	explo	osior	n pro	tecti	on								



Illuminated Push Button Module Type 07-3362-***0/**** and Type 07-3364-***0/****

The Illuminated Push Button Modules Type 07-3362-***0/**** and Type 07-3364-***0/****, are an illuminated indicator with the function of a control switch. The connection is via the integrated terminals.

Electrical Ratings & Technical Data	
Non-intrinsically safe (IS) versions	
Rated voltage, U	230 V
Rated insulation voltage, U _i (switch)	300 V
Rated operating voltage, U _e (indicator)	AC/DC 12 V - 230 V
Rated current (switch)	up to 1 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
Non-intrinsically safe (IS) low voltage versions	
Rated voltage, U	30 V
Rated insulation voltage, U _i (switch)	30 V
Rated operating voltage, U _e (indicator)	DC 12 V - 30 V
Rated current (switch)	up to 0.25 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

Intrinsically safe (IS) versions	
Rated voltage, U	30 V
Rated insulation voltage, U _i (switch)	30 V
Rated operating voltage, U _e (indicator)	DC 12 V - 30 V
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
Maximum values per circuit	U _i = 30 V
	I_i = 150 mA
	P _i = 1 W
	C _i (indicator) = 37 nF
	C _i (switch) – Negligible
	L _i – Negligible
Service temperature range, T _s	-55°C ≤ T _s ≤ +85°C



Model I	No.																					
Type no).		0	7	-	3	3	6	*	-	*	*	*	0	/	*	*	*	*			
Code no	0.		Α	В		С	D	Ε	F		G	Н	1	J		K	L	М	٨			
Code	Code for	Variations	De	scrip	otion									•								
2	Program	07	Ex	Со																		
C, D	Product Sector	33	Control and indicator device																			
E	Device	6	Illuminated push button module																			
F	Mounting	2	Rail																			
		4	Pa	nel																		
G	Connection	1	Terminals (only for type 07-3362-****/****)																			
		4	Те	rmin	als 1	5° (d	only	for ty	/pe (07-33	364-	****/*	****)									
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	Int	rinsi	c saf	ety "	i", 1	× N(C													
		7	Inc	creas	ed s	afet	y "e"	, 1 ×	NC	Э												
		8	Increased safety "e", 1 × NOC																			
I	Colour	1	Re	ed																		
		2	Gr	een																		
		3	Ye	llow																		
		4	WI	nite																		
		5	Blu	ıe																		
J	Cable length	0	N/	A																		
K-N	Number or letter for charac	cteristics withou	t influ	uenc	e on	the	explo	osior	n pro	tecti	on											

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 shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.



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 components may be operated in an intrinsically safe or a non-intrinsically safe operation mode. The operation mode is specified in line with the specification of the product by the end user during installation. When the operation mode or the corresponding marking have been selected, these shall be permanent and shall not be changed during the entire life of the component.
- iv. 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.