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

Ex COMPONENT CERTIFICATE

Certificate No.: IECEx CML 17.0046U

Issue No: 1

Certificate history:
Issue No. 1 (2018-08-03)
Issue No. 0 (2017-08-09)

Status: **Current**

Date of Issue: **2018-08-03**

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

Ex Component: **Illuminated Indicator Module Type 07-335*-****/**** & Illuminated Push Button 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 eb IIC Gb
Ex db eb ia IIC Gb
-55°C ≤ Ta ≤ +50°C
-55°C ≤ Ta ≤ +60°C (if rated operating voltage ≤ 26.4 V)
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: 2018-08-03

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.

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 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

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

Quality Assessment Report:

DE/TUN/QAR06.0017/10

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Schedule

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:

1. 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.
2. When the components are installed in an increased safety enclosure that complies with IEC 60079-7, the creepage and clearance distances must comply with the requirements of Table 1.
3. 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.

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

Variation 1

Variation introduces the following modification:

1. To expand the tables in the product description.

Annex:

IECEx CML 17.0046U Iss. 1 Certificate Annex.pdf

Annexe to:	**IECEx CML 17.0046U Iss. 1**
Applicant:	**Bartec GmbH**
Apparatus:	**Illuminated Indicator Module Type 07-335*-****/****** **Illuminated Push Button Type 07-336*-****/********

Product Description

Illuminated Indicator Module

The illuminated indicator module type 07-335*-****/**** is a build-in appliance and serves as a signal lamp. The luminescent element is available in a variety of signal colours.

Electrical Ratings and Technical Data – Non-Intrinsically Safe (IS) Versions		
Rated Voltage	300 V	
Rated Operating Voltage U_e	AC	DC
	12 V to 250 V	12 V to 60 V
Maximum Cross Section	2.5 mm^2	
Service Temperature T_s*	-55 °C ≤ T_s ≤ +85 °C	
* Including self-heating rate, maximum ambient temperature 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	
Electrical Ratings and Technical Data – Intrinsically Safety (IS) Versions		
Suitable Type Codes	07-33**-*4/**** 07-33**-*5/**** 07-33**-*6/****	
Maximum Operating Values for “Ex i" applications, per module.		
U_i = 30 V		
I_i = 150 mA		
P_i = 1 W		
C_i – Negligibly Low		
L_i – Negligibly Low		
Maximum Cross Section	2.5 mm^2	
Service Temperature T_s*	-55 °C ≤ T_s ≤ +85 °C	
* Including self-heating rate, maximum ambient temperature and, if applicable, external heat.		
Ambient temperature T_a	-55 °C ≤ T_a ≤ +60 °C	

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Illuminated Push-Button

The illuminated push button module type 07-336*-****/**** is an illuminated indicator with the function of a control switch. The connection is via the integrated terminals.

Electrical Ratings and Technical Data – Non-Intrinsically Safe (IS) Versions		
Rated Voltage	300 V	
Rated Operating Voltage U_e	AC	DC
	12 V to 250 V	12 V to 60 V
Rated Insulation Voltage U_i (Contacts)	300 V	
Utilization Category (Contacts)	230 V	24 V
	1.0 A	0.25 A
	AC-15	DC-13
Maximum Cross Section	2.5 mm^2	
Service Temperature T_s*	-55 °C ≤ T_s ≤ +85 °C	
* Including self-heating rate, maximum ambient temperature 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	
Electrical Ratings and Technical Data – Intrinsically Safe (IS) Versions		
Suitable Type Codes	07-33**-*4/**** 07-33**-*5/**** 07-33**-*6/****	
Supply Circuit (terminals X1, X2)	Type of Protection Intrinsic Safety Ex ia IIC or Ex ia I, only for connection to a certified intrinsically safe circuit	
Maximum Operating Values for “Ex i" applications, per module.		
U_i = 30 V		
I_i = 150 mA		
P_i = 1 W		
C_i – Negligibly Low		
L_i – Negligibly Low		
Maximum Cross Section	2.5 mm^2	
Service Temperature T_s*	-55 °C ≤ T_s ≤ +85 °C	

* Including self-heating rate, maximum ambient temperature and, if applicable, external heat.														
Ambient temperature T_a		-55 °C ≤ T_a ≤ +60 °C												
Model Number														
Code Number	Type	07	-	3	3	*	*	-	*	*	*	*	/	****
		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	5 = Illuminated Indicator Module 6 = Illuminated Push Button												
5	Fixture	1 = Bottom 3 = Front												
6	Mounting	1 = Screw terminals 4 = Screw terminals 15°												
7	Switch	1 = AC 12 V to 250 V; DC 12 V to 60 V 7 = AC 12 V to 250 V; DC 12 V to 60 V; one opening contact 8 = AC 12 V to 250 V; DC 12 V to 60 V; one closing contact 4 = AC / DC 12 V to 250 V 5 = AC / DC 12 V to 250 V; one opening contact 6 = AC / DC 12 V to 250 V; one closing contact												
8	Led Color	1 = Red 2 = Green 3 = Yellow 4 = White 5 = Blue												
9, 10	Applications	Variants without 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.

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.