UK Type Examination Certificate CML 22UKEX1136U Issue 0

United Kingdom Conformity Assessment

1 Component Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

2 Component **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/****

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 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.

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 limitations (affecting correct installation or safe use). These are specified in Section 14.

8 This UK Type Examination certificate relates only to the design and construction of the specified component. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.

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	EN 60079-11:2012

10 The equipment shall be marked with the following:

Ex I M2 II 2G	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*-*8*0/**** and 07-337*-*D*0/****
Ex I M2 II 2G	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/**** and 07-336*-*6*0/****

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

UKAS PRODUCT CERTIFICATION 8175

S. Roumbedakis
Technical Manager

11 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**	**/**	*****	*****	*****	*****
Code no.	**A**	**B**		**C**	**D**	**E**	**F**		**G**	**H**	**I**	**J**		**K**	**L**	**M**	**N**

Code	***Code for***	***Variations***	***Description***
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-****/****)
H	Design	1	2 × NCC
		2	2 × NOC
		4	1 × NCC & 1 × NOC
I	Contact	0	Silver alloy
		1	Gold plated
J	Cable length	0	N/A
K-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 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.	**0**	**7**	**-**	**3**	**3**	**8**	**2**	**-**	*****	*****	*****	*****	**/**	*****	*****	*****	*****
Code no.	**A**	**B**		**C**	**D**	**E**	**F**		**G**	**H**	**I**	**J**		**K**	**L**	**M**	**N**

Code	***Code for***	***Variations***	***Description***
A, B	Basic program	07	ExCo
C, D	Product sector	33	Control and indicator device
E	Device	8	Switch module 4-pole
F	Mounting	2	Rail
G	Design	1	4 × NCC
		2	3 × NCC & 1 × NOC
		3	2 × NCC & 2 × NOC
		4	4 × NOC
		5	1 × NCC & 3 × NOC
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

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**	*****	*****	*****	**/**	*****	*****	*****	*****
Code no.	**A**	**B**		**C**	**D**	**E**	**F**		**G**	**H**	**I**	**J**		**K**	**L**	**M**	**N**

Code	***Code for***	***Variations***	***Description***
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**	**/**	*****	*****	*****	*****
Code no.	**A**	**B**		**C**	**D**	**E**	**F**		**G**	**H**	**I**	**J**		**K**	**L**	**M**	**N**

Code	***Code for***	***Variations***	***Description***
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-****/****)
H	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		

Ratings

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:	U_i = 30 V I_i = 150 mA P_i = 1 W C_i = 37 nF L_i – negligibly low

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**	**/**	*****	*****	*****	*****
Code no.	**A**	**B**		**C**	**D**	**E**	**F**		**G**	**H**	**I**	**J**		**K**	**L**	**M**	**N**

Code	***Code for***	***Variations***	***Description***
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-****/****)
H	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 characteristics without influence on the explosion protection		

Ratings

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, U_i	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:	U_i = 30 V I_i = 150 mA P_i = 1 W C_i (indicator) = 37 nF C_i (switch) – negligibly low L_i – negligibly low

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**	**/**	*****	*****	*****	*****
Code no.	**A**	**B**		**C**	**D**	**E**	**F**		**G**	**H**	**I**	**J**		**K**	**L**	**M**	**N**

Code	***Code for***	***Variations***	***Description***
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-****/****)
H	Design	D	Potentiometer
I	Number or letter for characteristics without influence on the explosion protection		
J	Cable length	0	N/A
K-N	Number or letter for characteristics without influence on the explosion protection		

Ratings

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 mm^2
Rated torque	0.4 - 0.7 Nm

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	26 May 2023	R15124A/00	Issue of Prime Certification

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

13 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.

14 Schedule of Limitations

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

i. The modules that complies with EN 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 EN IEC 60079-0. When the modules are installed in an increased safety enclosure that complies with EN 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 EN 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 EN 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.

Certificate Annex

Certificate Number	**CML 22UKEX1136U**
Component	**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/****
Manufacturer	**Bartec GmbH**

The following documents describe the component defined in this certificate:

Issue 0

Document No	Sheets	Rev	Approved date	Title
01-3322-650001	1 of 1	A	26 May 2023	Switch module type 07-3322-1**0/****
01-3322-650001-BOM	1 of 1	A	26 May 2023	Switch module type 07-3322-1**0/****
01-3322-650002	1 of 1	–	26 May 2023	Clamp, rail, and contact type 07-33**-****/****
01-3322-650002-BOM	1 of 1	–	26 May 2023	Clamp, rail, and contact type 07-33**-****/****
01-3322-650003	1 of 1	A	26 May 2023	Switch module type 07-332*-***0/***
01-3322-650005-HLP	1 to 11	–	26 May 2023	Separation distances type 07-33**-****/****
01-3322-6A0002	1 of 1	A	26 May 2023	Minimum content of Marking Switch module type 07-332*-***0/****
01-3324-650001	1 of 1	A	26 May 2023	Switch module type 07-3324-4**0/****
01-3324-650001-BOM	1 of 1	A	26 May 2023	Switch module type 07-3324-4**0/****
01-3332-650001	1 of 1	–	26 May 2023	Control switch module type 07-3332-1***/****
01-3332-650001-BOM	1 of 1	–	26 May 2023	Control switch module type 07-3332-1***/****
01-3352-650001	1 of 1	A	26 May 2023	Illuminated indicator module type 07-3352-1**0/****
01-3352-650001-BOM	1 of 1	A	26 May 2023	Illuminated indicator module type 07-3352-1**0/****
01-3352-650002-ASY	1 to 2	–	26 May 2023	Printed-board assembly Ex e type 07-33**-****/****
01-3352-650002-BOM	1 of 1	A	26 May 2023	Printed-board assembly Ex e type 07-33**-****/****

Certificate Annex

Certificate Number **CML 22UKEX1136U**

Component **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/**

Manufacturer **Bartec GmbH**

Document No	Sheets	Rev	Approved date	Title
01-3352-650002-PCB	1 to 3	–	26 May 2023	Printed-board assembly Ex e type 07-33**-****/****
01-3352-650002-SCH	1 of 1	–	26 May 2023	Printed-board assembly Ex e type 07-33**-****/****
01-3352-650003-ASY	1 to 2	A	26 May 2023	Printed-board assembly Ex i type 07-33**-****/****
01-3352-650003-BOM	1 of 1	A	26 May 2023	Printed-board assembly Ex i type 07-33**-****/****
01-3352-650003-PCB	1 to 3	A	26 May 2023	Printed-board assembly Ex i type 07-33**-****/****
01-3352-650003-SCH	1 of 1	–	26 May 2023	Printed-board assembly Ex i type 07-33**-****/****
01-3352-650005	1 of 1	A	26 May 2023	Illuminated indicator module type 07-33**-***0/****
01-3352-6A0003	1 of 1	A	26 May 2023	Minimum content of Marking Illuminated indicator module type 07-335*-*1*0/****
01-3352-6A0004	1 of 1	A	26 May 2023	Minimum content of Marking Illuminated indicator module type 07-335*-*4*0/****
01-3354-650001	1 of 1	A	26 May 2023	Illuminated indicator module type 07-3354-4**0/****
01-3354-650001-BOM	1 of 1	A	26 May 2023	Illuminated indicator module type 07-3354-4**0/****
01-3362-650001	1 of 1	A	26 May 2023	Illuminated push button module type 07-3362-1**0/****
01-3362-650001-BOM	1 of 1	A	26 May 2023	Illuminated push button module type 07-3362-1**0/****
01-3362-650002	1 of 1	–	26 May 2023	Circuits assembly Ex i type 07-336*-*5*0/****, 07-336*-*6*0/****
01-3362-650002-BOM	1 of 1	–	26 May 2023	Circuits assembly Ex i type 07-336*-*5*0/****, 07-336*-*6*0/****
01-3362-6A0004	1 of 1	A	26 May 2023	Minimum content of Marking Illuminated push button module type 07-336*-*7*0/****, 07-336*-*8*0/****

Certificate Annex

Certificate Number	**CML 22UKEX1136U**
Component	**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/****
Manufacturer	**Bartec GmbH**

Document No	Sheets	Rev	Approved date	Title
01-3362-6A0005	1 of 1	A	26 May 2023	Minimum content of Marking Illuminated push button module type 07-336*-*5*0/****, 07-336*-*6*0/****
01-3362-6A0006	1 of 1	A	26 May 2023	Minimum content of Marking Illuminated push button module type 07-336*-*1*0/****, 07-336*-*2*0/****
01-3364-650001	1 of 1	A	26 May 2023	Illuminated push button module type 07-3364-4**0/****
01-3364-650001-BOM	1 of 1	A	26 May 2023	Illuminated push button module type 07-3364-4**0/****
01-3372-650001	1 of 1	–	26 May 2023	Potentiometer module type 07-3372-1D*0/****
01-3372-650001-BOM	1 of 1	–	26 May 2023	Potentiometer module type 07-3372-1D*0/****
01-3372-6A0002	1 of 1	–	26 May 2023	Minimum content of Marking Potentiometer module type 07-337*-*D*0/****
01-3374-650001	1 of 1	–	26 May 2023	Potentiometer module type 07-3374-4D*0/****
01-3374-650001-BOM	1 of 1	–	26 May 2023	Potentiometer module type 07-3374-4D*0/****
01-3382-650001	1 of 1	A	26 May 2023	Switch module 4-pole type 07-3382-****/****
01-3382-650001-BOM	1 of 1	–	26 May 2023	Switch module 4-pole type 07-3382-****/****
01-3382-6A0001	1 of 1	A	26 May 2023	Minimum content of Marking Switch module type 07-3332-1***/****, 07-3382-****/****