



# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.:	<b>IECEx UL 14.0048X</b>	Page 1 of 4	<u>Certificate history:</u>
Status:	<b>Current</b>	Issue No: 4	Issue 3 (2019-05-23)
Date of Issue:	2020-02-28		Issue 2 (2019-04-10)
Applicant:	<b>IDEC Corporation</b> 2-6-64 Nishimiyahara 2-Chome, Yodogawa-Ku Osaka 532-0004 <b>Japan</b>		Issue 1 (2016-04-06)
Equipment:	<b>Luminaires, EF1A Series</b>		Issue 0 (2014-07-11)
Optional accessory:	Mounting brackets, EF9Z Series		
Type of Protection:	<b>Flameproof "db" and Dust Ignition Protection by Enclosure "tb"</b>		
Marking:	Ex db IIB T4 Gb Ex tb IIIC T130° Db -20°C ≤ Ta ≤ +50°C		

Approved for issue on behalf of the IECEx  
Certification Body:

**Katy A. Holdredge**

Position:

**Senior Staff Engineer**

Signature:  
(for printed version)

Date:  
(for printed version)

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**UL LLC**  
333 Pfingsten Road  
Northbrook IL 60062-2096  
United States of America





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Manufacturer: **IDEC Corporation**  
2-6-64 Nishimiyahara  
2-Chome, Yodogawa-Ku  
Osaka 532-0004  
**Japan**

Manufacturing locations: **IDEC Corporation**  
Amagasaki Plant  
5-8-10 Shioe  
Amagasaki-chi  
Hyogo,661-0976  
**Japan**

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 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

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:

[US/UL/ExTR14.0018/00](#)  
[US/UL/ExTR14.0018/03](#)

[US/UL/ExTR14.0018/01](#)  
[US/UL/ExTR14.0018/04](#)

[US/UL/ExTR14.0018/02](#)  
[US/UL/ExTR14.0018/05](#)

### Quality Assessment Report:

[NO/NEM/QAR10.0001/13](#)



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The EF1A series of luminaires are composed of an LED module, driver module, and flameproof enclosure with various end cover options and various lenses. The luminaire is provided with a single LED type. The end covers for the enclosure have four types of entry options and the option to include a push button. The end covers are secured to the body of the enclosure using four fasteners. The luminaire is mounted using either a fixed angle mount or an adjustable angle mount.

**Please see Annex for additional information.**

## **SPECIFIC CONDITIONS OF USE: YES as shown below:**

- Remove dust of the plastic button with such as a wet cloth to prevent the button from being charged with static electricity, when using the EF1A with ON/OFF switch as equipment for Group III (explosive dust atmospheres).
- When disassembling or assembling the EF1A to perform maintenance or repairing, contact IDEC.
- Do not use the EF1A in the environment exposed to UV light (direct sunlight).



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## **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

Issue 1: Drawing update.

Issue 2: Addition of alternate material.

Issue 3: Drawing revisions.

Issue 4: Addition of M20x1.5 entry and minor drawing updates.

## **Annex:**

[Annex to IECEx UL 14.0048X Issue 4.pdf](#)



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## TYPE DESIGNATION AND PARAMETERS RELATING TO THE SAFETY

### Nomenclature :

EF1A-1	2	1	W	1	P	S	A	N2	A2	*****
I	II	III	IV	V	VI	VII	VIII	IX	X	XI

#### I. Basic Model Designation

EF1A-1

#### II. Rated Voltage

1 – DC 24V

2 – 100 to 240VAC

#### III. Glass Optical Specifications

Blank – Tempered Glass

1 – Translucent Reinforced Glass

#### IV. Illumination Color

W - White

#### V. Light Distribution Characteristics

Blank – Standard

1 – Without Lens

#### VI. Lead-in fittings

Blank – Cable gland on one end / without operate switch

T – Cable glands on both ends / without operate switch

P – Cable glands on one end / with operate switch

#### VII. Terminal

Blank – Spring-clamp terminal block

S – Screw Terminal Block

C – Lead Wire

#### VIII. Mounting Bracket

Blank – None

A – Fixed

B – Angle adjustable

#### IX. Conduit

N1 – NPT 1/2

N2 – NPT 3/4

M20 – M20

M25 – M25

M32 – M32

#### X. Operate Switch

Blank – None

A1 – Flush Pushbutton (alternate)

A2 – Extended Pushbutton (alternate)

#### XI. Manufacturer Control number

\*\*\*\*\* - Additional Letters and/or numbers



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## Accessory:

EF9Z- A  
I II

### I. Basic Model Designation

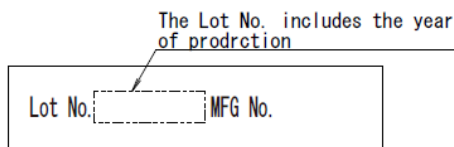
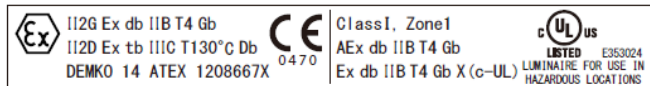
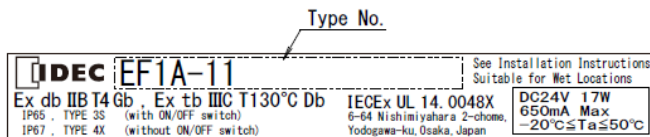
EF9Z

### II. Mounting Bracket Type

A- Fixed

B- Angle adjustable

## MARKING



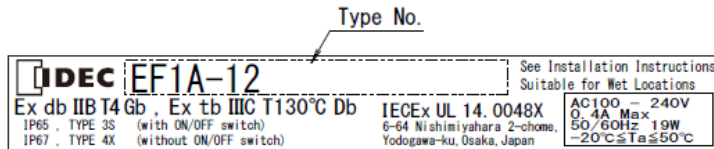


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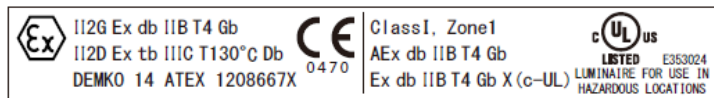
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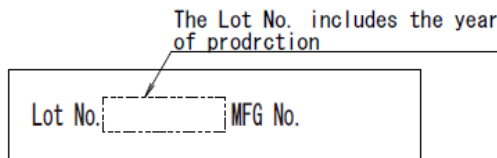
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NAMEPLATE1 (AC type)



NAMEPLATE2



NAMEPLATE3



NAMEPLATE4

## ROUTINE EXAMINATIONS AND TESTS

Each piece of equipment defined above has to have successfully passed; before delivery:

Routine overpressure tests in accordance with clause 16.1 of IEC 60079-1:2014 shall be conducted on all units in accordance with clause 16.1, at a pressure of 12.6 bar (183 PSI) for a duration of not less than 10 seconds. There shall be no sign of damage, deformation, leakage through the cemented joint or rupture that will invalidate the concept of protection.