

# IDEC

## INSTRUCTION MANUAL

### EF1A LED Illumination (Flameproof Construction)

B-1442(5)

Confirm that the delivered product is what you have ordered. Read this instruction manual to make sure of correct operation. Make sure that the instruction manual is kept by the end user.

#### Safety Precautions

In this operation instruction manual, safety precautions are categorized in order of importance to Warning and Caution:

#### WARNING

Warning notices are used to emphasize that improper operation may cause severe personal injury or death.

#### CAUTION

Caution notices are used where inattention might cause personal injury or damage to equipment.

#### WARNING

- (General requirements)
- Use the EF1A in applicable hazardous areas. (hazardous area: potentially explosive atmosphere where explosive gas or vapor may exist).
  - EF1A can be used in zone 1 and 2. Do not use in Zone 0.
  - Turn power off before working on the EF1A, otherwise explosion, fire hazard, or electric shocks may result.
  - Special expertise is required to install, operate, maintain, and inspect the EF1A. People without such expertise must not use the EF1A, otherwise it may cause damage to equipment or serious accidents.
  - Do not disassemble, repair, or modify the EF1A, otherwise it may cause damage to equipment or serious accidents.
  - Do not use a damaged EF1A, otherwise personal injury or serious accidents.
  - Since the EF1A has glass parts, do not drop, hit objects against the EF1A, apply excessive force, or scratch the surface. Otherwise it may cause damage to equipment or serious accidents.
  - Ensure that the layout of equipment around the EF1A does not cause overheating of the EF1A. Otherwise the capacitor temperature rises beyond the allowable temperature limit, resulting in the shortened service life of lamp, burnout, or deteriorated wire.
  - Do not gaze into the EF1A while it is lit, and do not project the light to other people, otherwise eyes may be injured.

#### (Wiring)

- When connecting the external wire, make sure each wire is connected to the correct terminal, otherwise electric shocks or fire hazard may result.
- For wiring, use wires of a proper size to meet the voltage and current requirements. Use a heat resistance wire (75°C minimum). Tighten the terminal screws (terminal screws only) to a recommended torque. Failure to tighten the terminal screw may cause overheating or fire.

#### (Installation)

- Ground the earth terminal of the EF1A securely, otherwise electric shocks, explosion or fire hazard may result.
- Do not ride on or hang from the EF1A, otherwise damage to equipment, personal injury, or serious accidents may result.
- Install the EF1A securely in a stable site, and do not install in unstable or movable location.
- Ensure to install properly, otherwise fall, electric shocks, and injury may result.
- Do not cover the EF1A with a flammable cloth or paper, and do not insert objects into the openings. Otherwise explosion or fire hazard may result.

#### (Operation)

- Do not open the end cover of the EF1A during operation, otherwise explosion or electric shocks hazard may result.

#### (Maintenance and inspection)

- When measuring the insulation resistance of the EF1A, make sure that potentially explosive atmosphere of explosive gas or vapor does not exist, otherwise explosion may result. Do not touch the terminals, otherwise electric shocks may occur.
- Turn off the power before maintenance or inspection, and wait for at least 2 minutes before opening the cover.

#### CAUTION

- (General requirements)
- Do not place any object on the product label.
  - Do not remove the product label.
  - Keep as much distance as possible from a sound equipment or communication lines.
  - Do not use or store the EF1A in environment subject to excessive vibration or shocks, otherwise damage may result.
  - Do not use the EF1A in the environment exposed to UV light (direct sunlight).
  - When installing the EF1A in environment subject to high temperature, low temperature, high humidity, strong wind, strong vibrations, excessive salt or dust, or corrosive gas may be generated, necessary measures must be provided.
  - LED modules and illumination units may vary in illumination colors and illuminance.
  - When opening the end cover for wiring, maintenance, or inspection, take a countermeasure so that foreign objects such as dust, powder, metal chips do not enter inside. Otherwise contact failure or insulation failure may result.

#### (Transportation)

- Handle the EF1A carefully not to drop and/or damage the EF1A during transportation.

#### (Opening the shipping carton)

- Place the shipping carton on a level plane with the top/bottom positioned correctly, otherwise damage to equipment or personal injury may result.

#### (Installing)

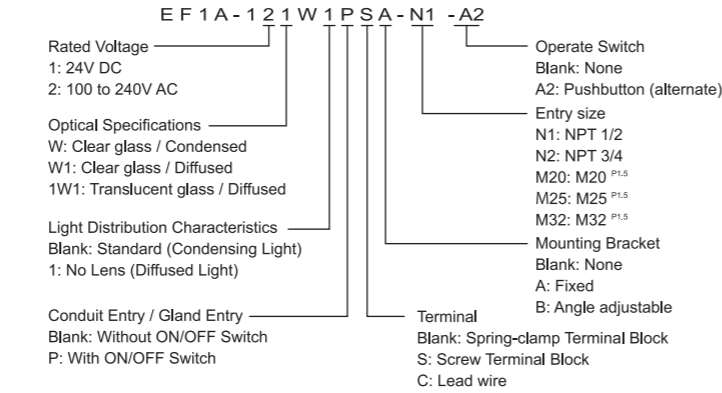
- Do not use the EF1A in the following places:  
Exposed to direct sunlight, near heaters, and at high temperatures.  
Subjected to chemicals and corrosive gases.  
Humid place.  
Cold storage warehouses and cooler exhaust outlets (make sure that no freezing occurs).

#### (Operation)

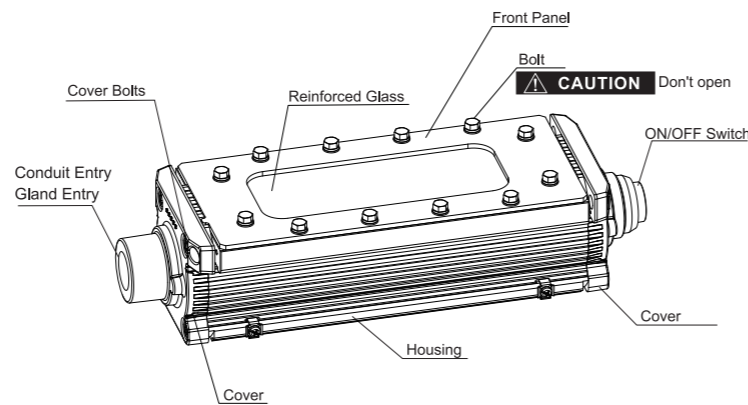
- Stop operation immediately in case of abnormal operation, otherwise secondary accident may be caused.
  - Observe the power voltage described on the product label.
  - Failure to observe power voltage may result in failure, fire hazard, or electric shocks.
  - Observe the frequency (50 or 60 Hz) of the area.
  - Otherwise fire hazard may result.
- (Maintenance and inspection)
- The surface temperature of EF1A may be extremely high during operation. Do not touch with bare hand to avoid burning your hand.
  - For maintaining bright illumination and safe operation, clean and inspect the EF1A periodically.
  - Do not operate the failed EF1A. Consult experts for repairs.
  - After 8 or 10 year operation, the EF1A has deteriorated internally. Inspection or replacement is recommended.
  - Service life is shortened in high ambient temperature and when the EF1A has been lit for long hours. Have the EF1A checked by an expert every three years.

### 1 Product Structure

#### (1) Type number

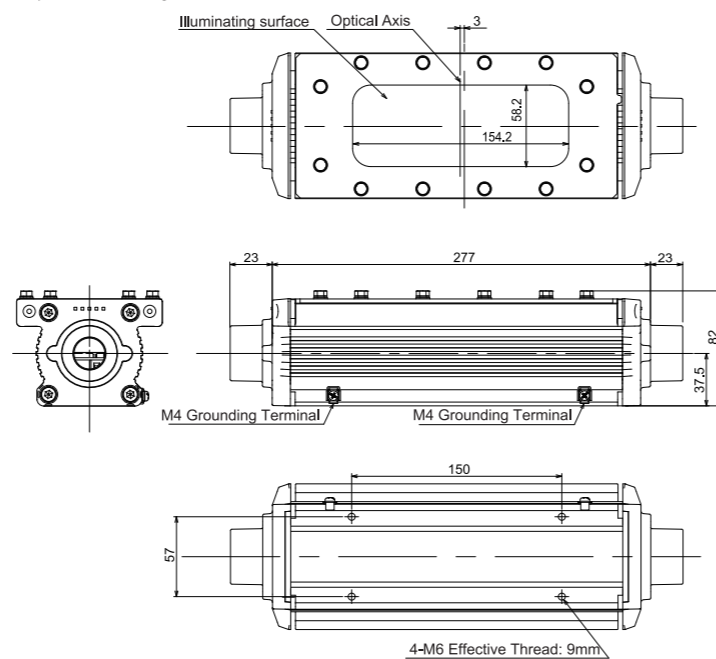


#### (2) Description of parts (EF1A-1□□W□P□□-□-□A2)

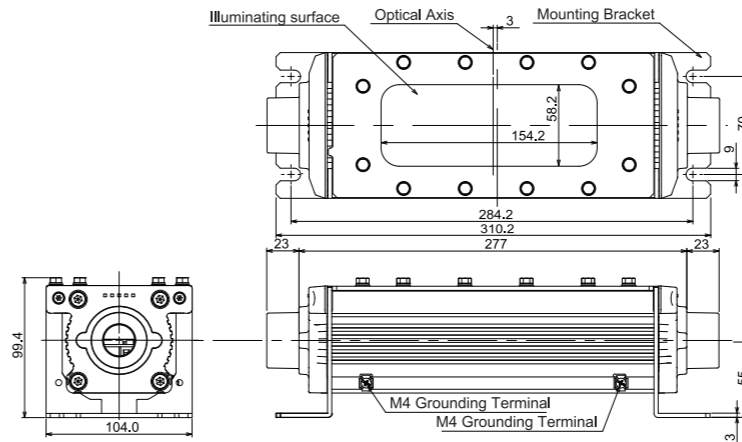


#### (3) Dimensions

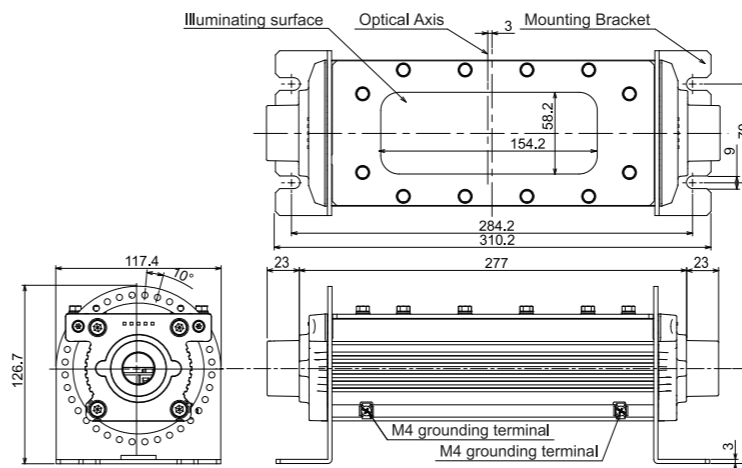
##### 1) Direct mounting



##### 2) With mounting bracket

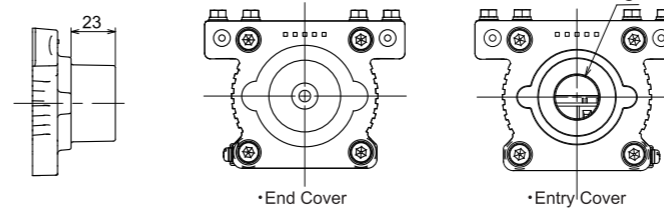


##### 3) With angle adjustable bracket



#### (4) Dimension of conduit entry and ON/OFF switch and end cover

##### •Entry or End cover



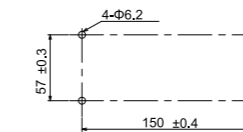
Entry size	C
N1	NPT 1/2
N2	NPT 3/4
M20	M20 <sup>P1.5</sup>
M25	M25 <sup>P1.5</sup>
M32	M32 <sup>P1.5</sup>

##### •With ON/OFF Switch

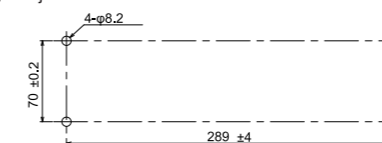


#### (5) Mounting hole layout

##### 1) Direct mounting



##### 2) With mounting bracket/angle adjustable bracket



#### (6) Attachments

- Instruction Manual.....2
- Hexagon Wrench (3).....1 (only with bracket)
- Hexagon Wrench (5).....1

## 2 Product Specifications

#### (1) Specifications

Explosion Protection	IECEX Ex db II B T4 Gb UL Ex tb III C T130°C Db IP67 (or IP65) Class I, Zone1 AEx db II B T4 Gb c-UL Ex db II B T4 Gb X
Certificate Numbers	IECEX UL 14.0048X E353024
Degree of Protection	IP67 (without ON/OFF switch) IP65 (with ON/OFF switch) (IEC60529) Type 4X (without ON/OFF switch) Type 3S (with ON/OFF switch) (UL50E)
Installation Area	Zone 1,2

#### (2) General specifications

Applicable Standards	IEC 60079-0 : Ed.7, IEC 60079-1 : Ed.7, IEC 60079-31 : Ed.2 ANSI/UL 60079-0 : Ed.7, ANSI/UL 60079-1 : Ed.7 CSA C22.2 60079-0 : 2019, CSA C22.2 60079-1 : 2016
Rated Voltage	100 to 240V AC (Universal AC input) / 24V DC
Operating Voltage Range	90 to 264V AC / 21.6 to 26.4V DC
Power Consumption	Typ. approx. 19W: 100 to 240V AC / Typ. approx. 17W: 24V DC
Insulation Resistance	100 to 240V AC: 100 MΩ minimum (500V DC megger) (between input and ground) 24V DC: 50MΩ minimum (500V DC megger) (between input and ground)
Dielectric Strength	100 to 240V AC: 2000V AC, 1 minute (between input and ground) 24V DC: 500V AC, 1 minute (between input and ground)
Vibration Resistance (damage limits)	5 to 55Hz, amplitude 0.5 mm
Shock Resistance (damage limits)	1000 m/s <sup>2</sup>
Operating Temperature	-20 to +50°C (no freezing)
Storage Temperature	-35 to +70°C (no freezing)
Operating Humidity	45 to 85%RH (no condensation)
Storage Humidity	20 to 90%RH (no condensation)
Service Life	50,000 hours minimum (the illumination duration in which the brightness maintains a minimum of 70% of the initial value at 25°C.)
Material	Housing: aluminium Front panel: stainless steel Illuminating surface: reinforced glass Mounting bracket: stainless steel
Weight (approx.)	2.9kg (without mounting bracket), 3.1kg (with mounting bracket)

#### (3) LED optical specifications

Optical specification	Clear glass Condensed	Clear glass Diffused	Translucent glass Diffused
Illumination Color	Daylight		
Color Temperature (typ.)	5,700K		
Total Luminous Flux (typ.)	1,850lm		
Reference Illuminance (typ.) at 1.0m Directly Below	3,280lx	530lx	460lx

#### Instructions

- LED life depends on the operating environment.
- The degree of protection is according to the test conditions specified by IEC 60529, and is not guaranteed in any operating environment.
- Highly bright LED lamps are used and may be lit due to induced current when the power is off.
- Do not replace LEDs, as it affects explosion proof characteristics. Contact IDEC for replacing LEDs.

## 3 Opening the Shipping Carton

#### (1) Opening the Shipping Carton

- Before installation, confirm that product is what you have ordered, and that there is no damage on parts. Contact the retailer in case of any inconvenience.

#### (2) Appearance

- The end cover surface may be uneven in color. Performance is not affected.
- Translucent lens may be uneven in color or has minute foreign substances adhered to. Performance is not affected.



## 4 Operation

### (1) Installation area

- The EF1A can be used in Zone 1 and 2. Do not use in Zone 0.
- Ambient temperature: -20 to +50°C

When the surface temperature of EF1A may exceed +50°C due to direct sunlight, provide a shade to keep the surface temperature under +50°C.

### (2) Installation

- Direct mounting: use four M6 bolts, or fixate to have equivalent strength  
Mounting bracket: use four M8 bolts or fixate to have equivalent strength  
Mounting bracket: 3mm thick (see dimensions)
- If bolt loosening is expected due to vibrations, use spring washers.  
Recommended tightening torque:  
M6: 3.9 to 5.4 N·m, M8: 10 to 13.5 N·m
- If corrosion on bolts is expected, use anti-corrosion bolts.

### (3) Installing/removing the cover

- When removing the cover, use a hexagon Wrench (size: 5) supplied with the EF1A to remove the cover bolts (hex socket head cap bolt ). Do not lose the end cover bolts. Hex socket head cap bolts made of stainless steel (M6x18, with spring washer and plain washer) are used.
  - The cover is inserted into the housing. When installing or removing the cover, make sure that the cover is inserted or removed straight.
  - When installing the cover, observe the followings.
    - No foreign objects on the gasket or on joint surface.
    - The gasket is in place.
    - The wires are not caught between the joint surfaces.
- Install the cover slowly and tighten screws securely to a torque of 3.9 to 5.4 N·m. (Note:) Check whether the bolts are tightened securely.

### (4) Notes on ON/OFF switch type

- The alternate ON/OFF switch is pushed to turn on, and further pushed to turn off. The EF1A may need a few seconds to turn on after the ON/OFF switch is pushed.
- For the EF1A with ON/OFF switch, do not remove the cover which has ON/OFF switch installed. Mounting bracket cannot be removed or installed by the user.
- For the direct mounting EF1A with ON/OFF switch, mounting bracket cannot be installed by the user. When mounting bracket is necessary, contact IDEC.

## CAUTION

- 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 an equipment for Group III (explosive dust atmospheres).
- Do not loosen the bolts on the front panel, otherwise explosion-proof structure cannot be maintained. When the bolts are loosened accidentally, tighten to a torque of 3.6 to 4.4 N·m.

## 5 Protective Grounding

Ground the EF1A according to the environment and ratings of the application where the EF1A is used. Observe the standards and regulations in each country and region.

- Use the M4 grounding terminal inside and make sure that the ground resistance value is under 100Ω.
- In wire wiring, use one core as grounding wire to connect to the grounding terminal.
- When not using the M4 grounding terminal inside, use the external M4 grounding terminal. Recommended tightening torque (M4): 1.4 to 2.0 N·m
- Use a wire in size and material which is durable against the maximum grounding current expected. Properly protect the ground wire from external damage.

## 6 Wiring

### (1) Applicable wire

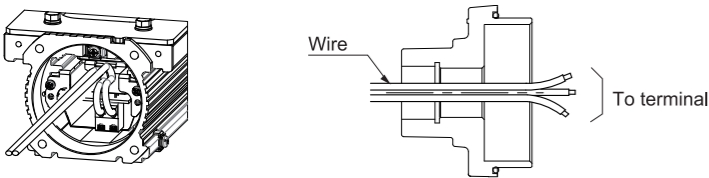
Stranded wire: 0.5 to 2.0 mm<sup>2</sup>, Solid wire: ø0.5 to ø2.0 mm<sup>2</sup> (AWG20-14)

Do not connect more than two wires to one terminal.

When connecting an insulated wire to the terminal block, use a crimping terminal with insulation sheath. Bare crimping terminal must be insulated with an insulation tube or marking tube.

Make sure not to apply excessive force to the terminal block when installing the cover.

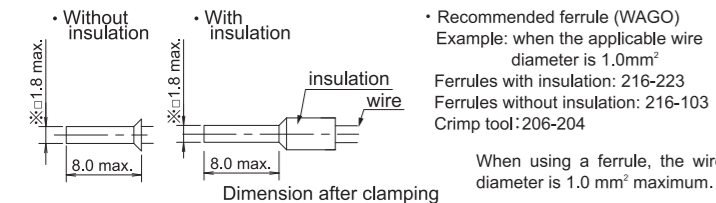
Use a heat resistance wire (75°C minimum).



### (2) Applicable crimping terminal

<Spring clamp terminal block (WAGO: 741-302)>

Ferrule

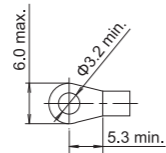


• Recommended ferrule (WAGO)  
Example: when the applicable wire diameter is 1.0mm<sup>2</sup>  
Ferrules with insulation: 216-223  
Ferrules without insulation: 216-103  
Crimp tool: 206-204

When using a ferrule, the wire diameter is 1.0 mm<sup>2</sup> maximum.

<Screw terminal block>

Ring terminal

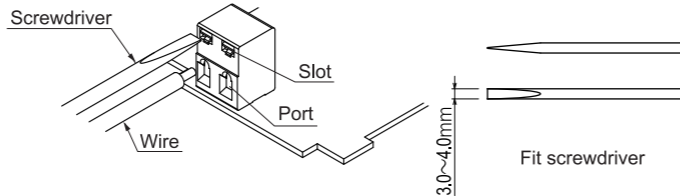


### (3) Recommended tightening torque

Screw terminal block (M3): 0.5 to 0.8 N·m

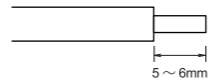
### (4) Wiring the spring clamp terminal block

Parts description



- Insert a screwdriver into the slot to open the spring inside the terminal block.
- With a screwdriver inserted into the slot, insert a wire stripped for 5 to 6mm or a wire crimped to the ferrule into the port completely. Insert one wire or ferrule into the port.
- Remove the screwdriver to complete wiring.
- To remove the wire, insert a screwdriver into the slot to open the spring, and pull out the wire.

When not using a crimp terminal, see below for stripping the wire.



Maximum sheath diameter is ø3.7mm.

### (5) Connecting the lead wire

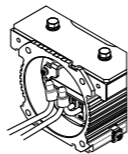
Lead wire is connected to the spring clamp terminal block.

Connect the wire core and lead wire using a closed end connector commercially available.

Lead wire diameter: AWG18  
Lead wire length: 80 mm

## CAUTION

- Install the cover completely.  
Make sure that the closed end connector or lead wire is not caught between the housing and the cover, otherwise explosion-proof structure cannot be maintained.
- In case the cylindrical joint surfaces are not sufficiently greased, apply the following grease or the equivalent.  
Type KS-65A by Shin-Etsu Chemical Co., Ltd.



### (6) Conduit entry / Gland Entry on both ends

A maximum of four EF1As can be connected.

Do not connect more than four EF1As, otherwise the input current may exceed the limit.

## 7 Accessories

- Mounting Bracket (except for EF1A with ON/OFF switch)  
Mounting Bracket: EF9Z-A 2 pcs. (mounting screws attached)  
Adjustable angle mounting bracket: EF9Z-B 2 pcs. (mounting screws attached)  
Used when changing the mounting style from direct mounting to using mounting brackets, or when changing from using the mounting brackets to adjustable angle mounting brackets.  
For the EF1A with ON/OFF switch, the mounting bracket cannot be changed or installed by the user. When mounting style needs to be changed, contact IDEC.

## 8 Maintenance and Inspection

### (1) Notes for inspecting the EF1A

- Observe the standards and regulations in each country and region to make sure of correct maintenance or inspection.
- Do not remove the cover while power is applied to the EF1A.
- Do not disassemble, repair, or modify the EF1A, otherwise explosion or fire hazard may result.
- Use tools that do not generate sparks.
- Use an explosion-proof electrical measuring instrument.
- When disassembling or assembling the EF1A to perform maintenance or repairing, contact IDEC.

### (2) Maintenance and inspection

- Perform maintenance and inspection of the EF1A daily or periodically on the items listed in the table 1, including damage of the enclosure and temperature rise of inside and outside surfaces.
- In order to maintain the explosion-proof structure, perform maintenance and inspection of the electrical wiring on the items listed in table 2.  
Perform visual inspection on the electrical wiring of the EF1A daily and periodically since the wiring is particularly subjected to external damage.

Table 1. Maintenance and inspection items

Inspection items	Inspection method	Details	Actions
Enclosure	Visual	No rust No damage	Cleaning Rust-resistant treatment
Bolts, screws	Visual, Tactile	No loosening No rust	Tightening Cleaning
Gaskets	Visual	No cracks No apparent deformation	Replacement
Connection	Visual, Tactile	No loosening No dirt on insulation material	Tightening Cleaning
Cylindrical joint	Visual	No damage No rust Anti-corrosion grease evenly applied (Type KS-65A by Shin-Etsu Chemical Co., Ltd.)	Cleaning Remove foreign matters Apply more grease
Temperature rise	Thermometer, Tactile	Surface temperature below 80°C	Investigation

Table 2. Inspection and maintenance of wiring

	Inspection items	Inspection method	Details
Wiring	Appearance of wire	Visual, Tactile	No damage No swelling or hardening
	Insulation resistance of wire	Measurement	5MΩ minimum
	Appearance of wire protection	Visual, Tactile	No damage or corrosion
	Appearance of ducts, wire/wiring trench	Visual, Tactile	No damage or corrosion No displacement of the end cover

## 9 Disposal

Observe the national standards for refuse disposal.

Specifications and other descriptions in this manual are subject to change without notice.

## Consignes de sécurité

Dans ce Mode d'emploi, les consignes de sécurité sont classées par ordre d'importance sous les termes Avertissement et Attention:

### AVERTISSEMENT

Le terme Avertissement est utilisé pour souligner qu'une utilisation inadéquate peut entraîner une blessure grave ou le décès.

### ATTENTION

Le terme Attention est utilisé lorsqu'une inattention peut entraîner une blessure ou des dommages matériels.

### AVERTISSEMENT

(Exigences générales)

- Utiliser l'EF1A dans les zones dangereuses applicables (zone dangereuse: atmosphère potentiellement explosive où il peut y avoir des gaz explosifs ou des vapeurs explosives).
- L'EF1A peut être utilisé dans les zones 1 et 2. Ne pas l'utiliser dans la zone 0.
- Couper l'alimentation avant de travailler sur l'EF1A, sinon il y a risque d'explosion, d'incendie ou de décharges électriques.
- Une expertise particulière est requise pour installer, exploiter, entretenir et inspecter l'EF1A. Les personnes sans cette expertise ne doivent pas utiliser l'EF1A, sinon il y a risque de dommages matériels ou d'accidents graves.
- Ne pas démonter, réparer ou modifier l'EF1A, sinon il y a risque de dommages matériels ou d'accidents graves.
- Ne pas utiliser un EF1A endommagé, sinon il y a risque de dommages matériels ou d'accidents graves.
- L'EF1A ayant des pièces en verre, ne pas le laisser tomber, heurter des objets contre l'EF1A, appliquer une force excessive ou rayer la surface. Autrement il y a risque de dommages matériels ou d'accidents graves.
- S'assurer que la disposition des équipements autour de l'EF1A ne provoque pas la surchauffe de l'EF1A.  
Sinon, la température du condensateur s'élèvera au-dessus de la limite de température admise, entraînant une réduction de la durée de service de la lampe, le grillage de la lampe ou la détérioration des câbles.

- Ne pas regarder dans l'EF1A pendant qu'il est allumé, et ne pas projeter la lumière vers d'autres personnes, sinon il y a risque de blessure aux yeux.

(Câblage)

- Lors de la connexion des câbles externes, s'assurer que chaque câble est connecté à la bonne borne, sinon il y a risque de décharges électriques ou d'incendie.
- Pour le câblage, utiliser des câbles de la bonne taille conformes aux exigences de tension et de courant.  
Utiliser des câbles résistants à la chaleur (75°C minimum).  
Appliquer le couple de serrage recommandé en serrant les vis de borne (uniquement les vis de borne).  
Une vis de borne mal serrée peut entraîner la surchauffe ou un incendie.
- (Installation)
- Bien connecter la borne de terre de l'EF1A, sinon il y a risque de décharges électriques, d'explosion ou d'incendie.
- Ne pas monter sur l'EF1A ni s'y suspendre, sinon il y a risque de dommages matériels, de blessure ou d'accidents graves.
- Installer l'EF1A de manière sûre dans un endroit stable; ne pas l'installer dans un emplacement instable ou mobile.
- S'assurer de l'installer correctement, sinon il y a risque de chute, de décharges électriques et de blessure.
- Ne pas recouvrir l'EF1A d'un tissu inflammable ou de papier, et ne pas insérer d'objets dans les ouvertures. Sinon, il y a risque d'explosion ou d'incendie.

(Utilisation)

- Ne pas ouvrir le couvercle borgne de l'EF1A pendant l'utilisation, sinon il y a risque d'explosion ou de décharges électriques.

(Maintenance and inspection)

- Lors de la mesure de la résistance d'isolement de l'EF1A, s'assurer qu'il n'y a pas d'atmosphère potentiellement explosive (gaz explosif ou vapeur explosive), sinon il y a risque d'explosion.

Ne pas toucher les bornes, sinon il y a risque de décharges électriques.

- Couper l'alimentation avant d'effectuer la maintenance ou l'inspection, et attendre au moins 2 minutes avant d'ouvrir le couvercle.

## ATTENTION

(Exigences générales)

- Ne mettre aucun objet sur l'étiquette signalétique du produit.
- Ne pas retirer l'étiquette signalétique du produit.
- Garder le plus loin possible du matériel de sonorisation ou des lignes de communication.
- Ne pas utiliser ou ranger l'EF1A dans un environnement soumis à des vibrations ou chocs excessifs, sinon il y a risque de dommages.
- Ne pas utiliser l'EF1A dans un environnement exposé lumière UV (directement aux rayons du soleil).
- Lors de l'installation de l'EF1A dans un environnement soumis à des températures élevées ou basses, à une humidité élevée, à des vents violents, à des vibrations fortes ou à des concentrations trop élevées de sel ou de poussière, des mesures particulières doivent être prises.
- Les modules LED et les unités d'éclairage peuvent varier en termes de couleurs d'éclairage et d'éclairement lumineux.
- Lors de l'ouverture du couvercle borgne pour effectuer le câblage, la maintenance ou l'inspection, prendre les mesures nécessaires pour éviter que des corps étrangers tels que poussières, poudres et copeaux métalliques ne pénètrent à l'intérieur. Sinon, il y a risque de mauvais contact ou de mauvaise isolation.

(Transport)

- Manipuler l'EF1A soigneusement, afin de ne pas le laisser tomber et/ou l'endommager pendant le transport.

(Ouverture du carton d'emballage)

- Placer le carton d'emballage sur une surface plane et avec le haut/bas positionné correctement, sinon il y a risque de dommages matériels ou de blessure.

(Installation)

- Ne pas utiliser l'EF1A dans les endroits suivants:  
Exposés aux rayons du soleil, près de radiateurs, et à températures élevées.  
Exposés à des produits chimiques et à des gaz corrosifs.  
Endroit humide  
Entrepôts frigorifiques et sorties d'échappement de refroidisseur (s'assurer qu'aucun gel ne se produit).

(Utilisation)

- Cesser immédiatement l'utilisation en cas de fonctionnement anormal, sinon il y a risque d'accident secondaire.
- Respecter la tension d'alimentation indiquée sur l'étiquette signalétique du produit.
- Le non-respect de la tension d'alimentation peut entraîner une panne, un incendie ou des décharges électriques.
- Respecter la fréquence (50 ou 60 Hz) de la région.
- Sinon, il y a risque d'incendie.
- (Maintenance and inspection)
- La température de surface de l'EF1A peut être extrêmement élevée pendant l'utilisation. Pour éviter toute brûlure aux mains, ne pas toucher à main nue.
- Pour maintenir un éclairage lumineux et un fonctionnement sûr, nettoyer et inspecter l'EF1A régulièrement.
- Ne pas utiliser l'EF1A s'il est défectueux. Confier les réparations à des spécialistes.
- Les pièces internes de l'EF1A se détériorent au bout de 8 à 10 ans d'utilisation. Il est alors recommandé de les faire inspecter ou remplacer.
- La durée de service diminue à température ambiante élevée et lorsque l'EF1A reste allumé pendant de longues heures.  
Faire vérifier l'EF1A par un spécialiste tous les trois ans.

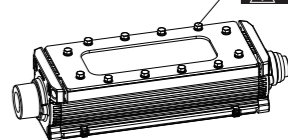
## Utilisation

### ATTENTION

- Enlever la poussière du bouton en plastique avec un chiffon humide pour éviter qu'il ne se charge d'électricité statique, lorsque l'EF1A est utilisé avec un interrupteur d'alimentation en tant qu'appareil pour Groupe III (atmosphères de poussières explosives).
- Ne pas desserrer les boulons sur le panneau avant, sinon la structure antidéflagrante ne pourra être maintenue. Si les boulons sont desserrés accidentellement, les resserrer en appliquant un couple de serrage de 3,6 à 4,4 N·m.

boulon

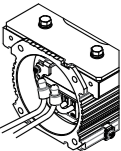
Ne pas ouvrir



## Câblage

### ATTENTION

- Installer le couvercle parfaitement.  
S'assurer que le connecteur fermé et le fil conducteur ne sont pas coincés entre le carter et le couvercle, sinon la structure antidéflagrante ne pourra être maintenue.
- Si les surfaces de raccord cylindriques ne sont pas assez lubrifiées, appliquer la graisse suivante ou une graisse équivalente.  
Type KS-65A par Shin-Etsu Chemical Co., Ltd.



IDEC CORPORATION

<http://www.idec.com>

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