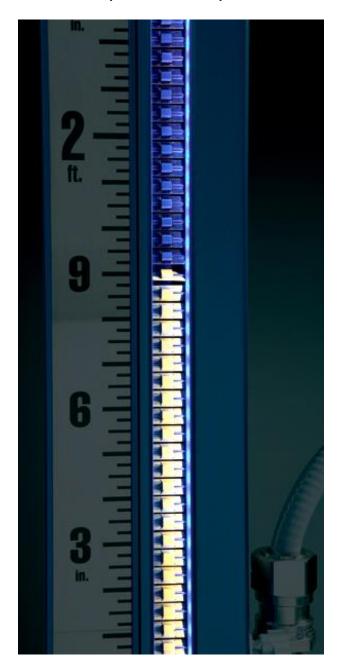


# NightStar® LED Illuminator

INSTALLATION, OPERATING & MAINTENANCE INSTRUCTIONS (Model A30335)





#### STORAGE and HANDLING

The **NightStar** Indicator meets or exceeds all applicable specifications when shipped from the factory. All units should be inspected upon receipt to ensure that no damage has been incurred during transit. If there has been, a claim should be filed with the carrier immediately. Unit should be stored in an area protected from the elements and corrosive fumes, in a secure manner where they can neither fall, nor be struck by other objects. Care should be taken to protect the window and the end connections from damage. Avoid placing any objects directly on the light at any time.

#### **COMPONENTS**

There are three main components that make up the *NightStar*: the flag indicator/light housing, the power supply, and the cable connecting these two main pieces. The cable may have more than one piece depending on the required distance between the illuminator and the power supply.

#### **INSTALLATION**

**CAUTION:** All units are tagged with the service conditions for that particular unit. These specifications are located on the Jerguson tag on the power supply housing and are contained in the "Specifications" section of this manual. Do not use or refer to specifications listed on red label on the power supply housing. They are specifications for generic use. Review the ratings prior to installation and again prior to start-up, to ensure proper operation in the installed environment. Should there be any doubt as to the applicability of a unit for the installed environment, consult the factory before placing the unit into service.

**Note:** All installation steps should be performed by a qualified technician and should be executed in accordance with all applicable national and local codes.

The indicator and power supply should be checked to ensure that they contain no foreign matter, and that the end connections are clean, undamaged, and in line with existing conduit.

### NOTE: See Drawing CI-26677 for safety information for hazardous locations.

Step by step instructions (if the indicator is received installed on a Magnetic Level Gage, proceed to step 3):

- 1) Loosen the hose clamps provided and place one around the top and bottom of the magnetic gage chamber. (See *Figure 1*).
- 2) Place the indicator on the magnetic level gage, aligning "zero" with the lower process connection, using the hose clamps provided, fasten the clamps around the mounting ears at the top and bottom of the *NightStar* indicator.
- 3) The power supply is provided mounted to the indicator. The power supply may be remote mounted up to 72ft (22m) away. See parts list on page 4 for extension part numbers.
- 4) Open the cover of the power supply housing. Insert the AC Line wires into the housing and connect to the "AC IN" terminal block. A ground screw is located inside the enclosure if required. **CAUTION**: The DC output is pre-wired. Do not disassemble or remove wires from the DC connection.

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- 5) IMPORTANT: A "sealing fitting" in the conduit is required within 18" (.45m) of the power supply.
- 6) For remote mount power supply, if the blue DC power cord will not reach the power supply, contact your local representative for the required extension cable.

#### CAUTION: Verify that the area is free of flammables.

- 7) Replace the cover on the power supply housing.
- 8) Switch "ON" the power supply making sure the Illuminator is functioning properly, with all LED's illuminated.
- If the LED's do not illuminate, remove the cover on the power supply once the power as been turned on. An LED will be lit if it is wired correctly. See Figure 2.
- 10) If the LED in the power supply is not lit, check the power source and the connection before continuing.

Any additional components must be installed prior to the customer's sealing fitting.

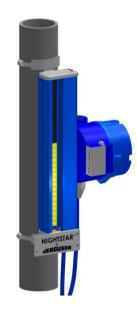


Figure 1

#### **FUSE REPLACEMENT**

This power supply is fused for AC protection. In the event of a voltage surge, the fuse may release, causing no output voltage. Replace the fuse with Clark-Reliance part only. (See figure 2)

See Spare Parts table on page 4 for correct fuse part number.

#### **OPERATION**

The LED illuminator can run continuously. The operating life of the LED's exceed 100,000 hours under normal conditions.

### **ROUTINE MAINTENANCE**

Keep window on the front of the light clean using commercial glass cleaners, such as Windex <sup>®</sup> or similar. Never use harsh abrasives, wire brushes, metal scrapers, or any material that could scratch the window. The window may be cleaned while the unit is in operation.

	<u>SPECIFICATIONS</u>
Power Supply:	115 or 230 VAC @ 50-60 Hz
Power	< 250 mA @ 115 VAC

Consumption: < 125 mA @ 230 VAC

Est. Life: 100,000 Hours (continuous)

Wire Size: Min 18AWG (.75mm<sup>2</sup>)

Max 12AWG (4mm<sup>2</sup>)

Max dist. from

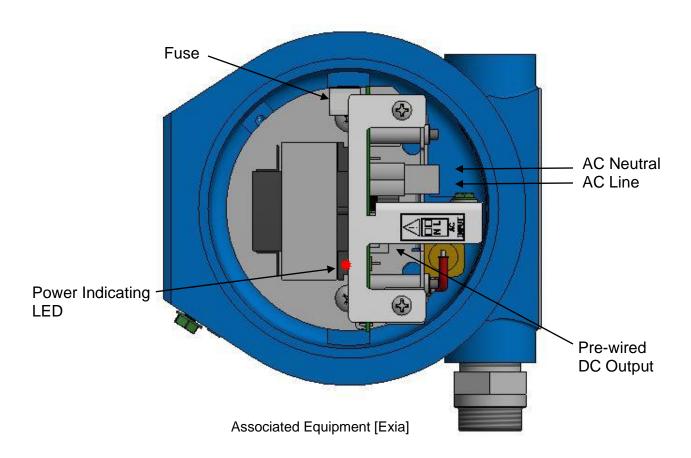
power supply to light: 72ft (22M)

Ambient Temperature: -40 F (-40 C) to 140 F (60C)

Electrical Connection: 3/4" FNPT

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**Figure 2: Wiring Instruction** 



#### Caution:

Incorrectly connecting the AC Input to the DC Output will caused permanent damage to the power supply and possibly create the ignition of hazardous atmospheres.

## Warning: Substitution of components may impair intrinsic safety.

## **Spare Parts**

Item	Part Number	Description
1	A25115-115	115VAC Power Supply on Bracket (No Enclosure)
2	A25115-230	230 VAC Power Supply on Bracket (No Enclosure)
3	A25119-115-E6-N	115VAC Power Supply W/ Aluminum Enclosure USA/CAN (Class, Division Certified)
4	A25119-230-E6-N	230VAC Power Supply W/ Aluminum Enclosure USA/CAN (Class, Division Certified)
5	A25481-115-E6-N	115VAC Power Supply W/ Aluminum Enclosure IECEx/ATEX (Zone Certified)
6	A25481-230-E6-N	230VAC Power Supply W/ Aluminum Enclosure IECEx/ATEX (Zone Certified)
7	E-F-DIN-0250-T	250mA Fuse (For use in 115 VAC Power Supply)
8	E-F-DIN-0125-T	125mA Fuse (For use in 230 VAC Power Supply)
9	V20601-# (# = length ft)	Extension DC Power Cord for Remote Mounting Power Supply

## NightStar®

SYSTEM MODEL A30335, USE ONLY WITH POWER SUPPLY S25481 INDUSTRIAL CONTROL EQUIPMENT. INTRINSICALLY SAFE FOR HAZARDOUS LOCATIONS. II 2 G Ex ib IIB+H2 T4 Gb NEMA 4X ITS20ATEX25919X Ex ib IIB+H2 T4 Gb NEMA 4X IECEx ETL 20.0063X

AMB. TEMP.:  $-40^{\circ}\text{C}/-40^{\circ}\text{F} \le \text{Ta} \le 60^{\circ}\text{C}/140^{\circ}\text{F}$ 

SEE CONTROL DRAWING CI-26677 FOR INSTALLATION AND ALL PRODUCT WARNING INFORMATION

MODEL NO.:

MFG. DATE:





Mfg. by the Clark-Reliance Corporation; Strongsville, Ohio 44149 USA; +1 (440) 572-1500; www.clarkreliance.com

## *NīghtStar®*

MODEL: A30335 PART #: S25481

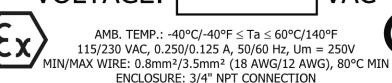
CAUTION: TO REDUCE THE RISK OF IGNITION OF HAZARDOUS ATMOSPHERES, CONDUIT RUNS MOST HAVE SEALING FITTING WITHIN 457mm (18") OF ENCLOSURE. DISCONNECT POWER BEFORE SERVICING. KEEP ASSEMBLY TIGHTLY CLOSED WHEN IN OPERATION. TO PREVENT THE RISK OF ELECTROSTATIC SPARKING, PAINTED SURFACES SHOULD BE CLEANED WITH A DAMP CLOTH.

INDUSTRIAL CONTROL EQUIPMENT FOR HAZARDOUS LOCATIONS. ASSOCIATED APPARATUS PROVIDES INTRINSICALLY SAFE OUTPUT. SUBSTITUTION OF COMPONENTS MAY IMPAIR SAFETY.

Ex db [ib] IIB+H2 T4 Gb IP66/TYPE 4X IECEx ETL 20.0063X

SEE CONTROL DRAWING CI-26677 FOR FULL INSTALLATION AND PRODUCT WARNING INFORMATION

**VOLTAGE:** 



Mfg. by Clark-Reliance Corporation; Strongsville, Ohio 44149 USA +1 (440) 572-1500; www.clarkreliance.com

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