Quick Start Guide

NERLITE Smart Series Ring Illuminator

P/N 83-9200047-02

Caution: Be sure that all connections are secure BEFORE applying power. Power down BEFORE disconnecting cables.

Important: All specified wire colors apply to Omron Microscan cables. If non-Omron Microscan cables are used, it is the customer's responsibility to make sure the illuminator is connected per the specified connector pin numbers.

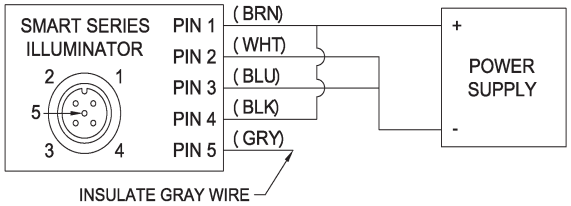
Important: Power and Signal to be supplied by SELV (Safety Extra-Low Voltage) source.

OMRON
MICROSCAN

Continuous Operation

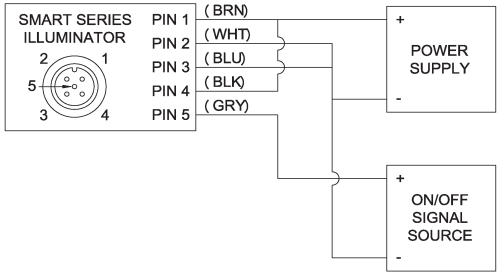
1. Connect Pin 1 (Brown Wire) and Pin 4 (Black Wire) to the positive terminal of the power supply
   Voltage: 24VDC (20.2 to 28.8VDC)
   Current: See Product Label, Specification Sheet, or Configuration Guide
2. Connect Pin 2 (White Wire) and Pin 3 (Blue Wire) to the negative terminal of the power supply.
3. Insulate Pin 5 (Gray Wire)

   ATTENTION!
   Contact between Pin 5 (Gray Wire) and any ground or voltage source less than or equal to 3.5VDC may cause erratic operation in this configuration.
   Contact between Pin 5 (Gray Wire) and any voltage source greater than 3.5VDC will damage the illuminator.
4. Apply Power



Continuous Operation With On/Off Control

1. Connect Pin 1 (Brown Wire) and Pin 4 (Black Wire) to the positive terminal of the power supply.
   Voltage: 24VDC (20.2 to 28.8VDC)
   Current: See Product Label, Specification Sheet, or Configuration Guide
2. Connect Pin 2 (White Wire) and Pin 3 (Blue Wire) to the negative terminal of the power supply and to the negative terminal of the On/Off signal source.
3. Connect Pin 5 (Gray Wire) to the positive terminal of the On/Off control signal source.
   Voltage: 0VDC = LEDs Off, 3.3VDC (3.1 to 3.5VDC) = LEDs On
   Current: <1mA
   ATTENTION!
   Applying a voltage greater than 3.5VDC to Pin 5 (Gray Wire) will damage the illuminator.
4. Apply Power & On/Off Control Signal



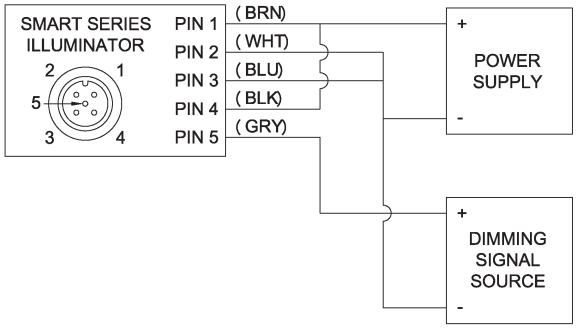
Continuous Operation With Dimming

1. Connect Pin 1 (Brown Wire) and Pin 4 (Black Wire) to the positive terminal of the power supply.
   Voltage: 24VDC (20.2 to 28.8VDC)
   Current: See Product Label, Specification Sheet, or Configuration Guide
2. Connect Pin 2 (White Wire) and Pin 3 (Blue Wire) to the negative terminal of the power supply and to the negative terminal of the PWM (Pulse Width Modulated) Dimming signal source.
3. Connect Pin 5 (Gray Wire) to the positive terminal of the PWM Dimming signal source.
   Voltage: 0VDC = LEDs Off, 3.3VDC (3.1 to 3.5VDC) = LEDs On
   Current: <1mA
   Modulation Frequency: 2KHz +/- 100Hz
   Duty Cycle: LED Duty Cycle (Intensity) = Dimming Signal Duty Cycle

   ATTENTION!
   Applying a voltage greater than 3.5VDC to Pin 5 (Gray Wire) will damage the illuminator.

NOTE: Omron Microscan offers an Analog to PWM Converter as an accessory. This unit enables the user to control the intensity of any Smart Series light with a variety of analog inputs (0 - 20 mA, 4 - 20 mA, 0 - 10 mA, 2 - 10 mA, 0 - 10 V, 2 - 10 V, 0 - 5 V, or 1 - 5 V.) Go to **www.microscan.com** and select your illuminator for details.

4. Apply Power and Dimming Signal

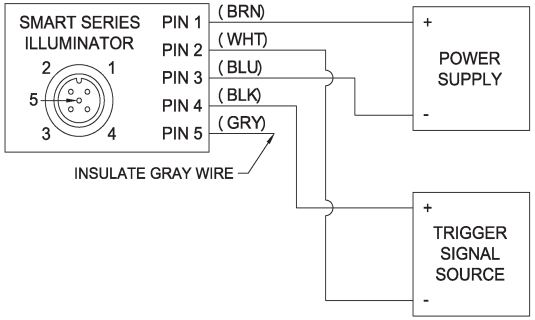


Strobe Operation

1. Connect Pin 1 (Brown Wire) to positive terminal of the power supply.
   Voltage: 24VDC (20.2 to 28.8VDC)
   Current: See Product Label, Specification Sheet, or Configuration Guide
2. Connect Pin 2 (White Wire) to the negative terminal of the strobe trigger source.
3. Connect Pin 3 (Blue Wire) to the negative terminal of the power supply.
4. Connect Pin 4 (Black Wire) to the positive terminal of the strobe trigger source.
   Voltage: 0VDC = LEDs Off, 3.1 to 28.8VDC = LEDs On
   Current: 10mA Maximum
   Pulse Width: 20uS Minimum
   LED pulse width will follow trigger signal pulse width from 20uS to 1mS.
   LED frequency and pulse width are internally limited to 90Hz and 1mS
5. Insulate Pin 5 (Gray Wire)

ATTENTION!
Contact between Pin 5 (Gray Wire) and any ground or voltage source less than or equal to 3.5VDC may cause erratic operation in this configuration.
Contact between Pin 5 (Gray Wire) and any voltage source greater than 3.5VDC will damage the illuminator.

6. Apply Power
   Important: The trigger signal must be low (0VDC) when power is first applied. If the trigger signal is high (3.1-28.8VDC) when power is first applied, the illuminator will enter
   continuous mode.
7. Begin Triggering



REV.	DESCRIPTION	DATE	APPROVED
A	RELEASE PER ECN-003970	12/16/2020	BT

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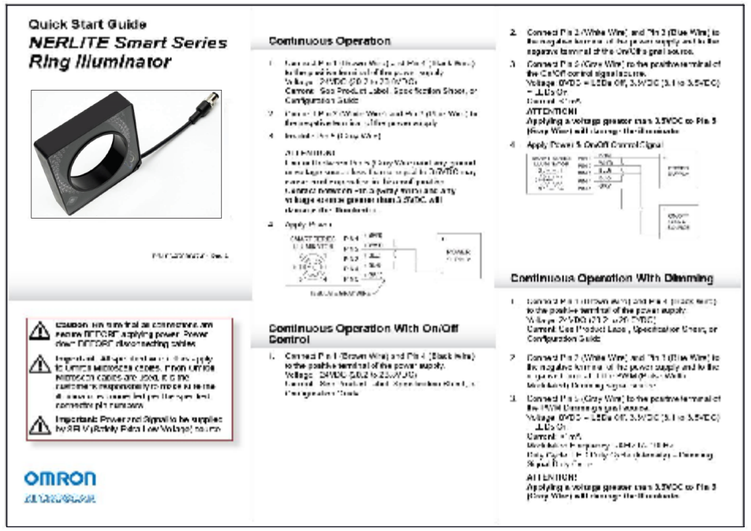

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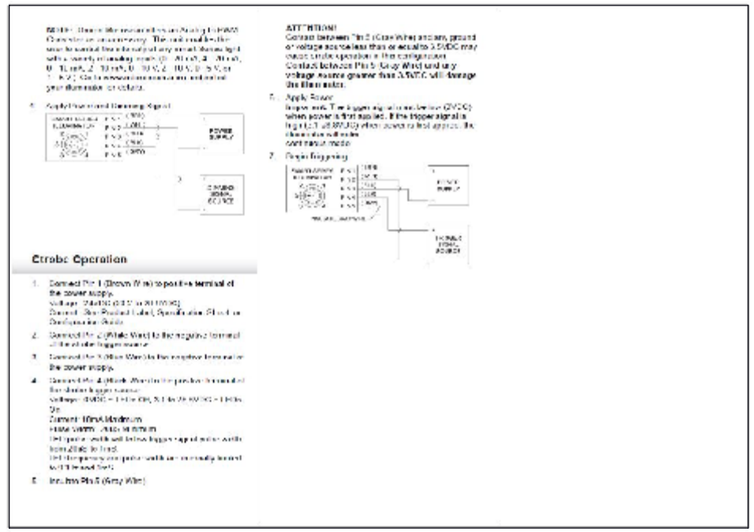

FIRST AND SECOND FOLDS. FOLD 11" (27.9 cm) LENGTH OF SHEET INTO THIRDS MEASURING 3.67" (9.3 cm) EACH.

3.

THIRD AND FINAL FOLD. FOLD 8.5" (21.6 cm) LENGTH OF SHEET IN HALF AS SHOWN ABOVE, SO THAT THE FINAL FOLDED DIMENSIONS ARE 4.25" (10.8 cm) x 3.67" (9.3 cm).

QUALITY POLICY
MANUFACTURE PER MICROSCAN WORKMANSHIP MANUAL, 04-9000167-01, AND MICROSCAN SUPPLY CHAIN REGULATED SUBSTANCES SPECIFICATIONS, 04-9000018-01. REFERENCED DOCUMENTS CAN BE FOUND IN THE QUALITY SECTION OF THE SUPPLIER GUIDE ON MICROSCAN.COM

NOTES

1. MATERIAL: 20# WHITE SMOOTH STOCK OR OTHER PAPER STOCK AT PRINTER'S DISCRETION.
2. PRINT BLACK AND WHITE (OR COLOR AT PRINTER'S DISCRETION) USING OMRON MICROSCAN SYSTEMS, INC. PDF 83-9200047-XX, LATEST REVISION.
   PRINT ONLY PAGES 1 AND 2 OF THIS PDF, DOUBLE-SIDED.
   DO NOT PRINT PAGE 3. THIS PAGE IS FOR PRINTING AND FOLDING INSTRUCTIONS ONLY.

3. FOLD AS SHOWN. FINAL FOLDED DIMENSIONS: 4.25" (10.8 cm) x 3.67" (9.3 cm).

UNLESS OTHERWISE SPECIFIED
DIMENSIONS AND TOLERANCES ARE IN MILLIMETERS.
DIMENSIONS PER ASME Y14.5.
.X = ± 6.35
.XX = ± 6.35
ANGLE = ± 1°
SECTION VIEWS PER ANSI Y14.3.
THIRD ANGLE PROJECTION
DO NOT SCALE DRAWING

DRAWN BY B.THOMPSON | DATE 12-16-2020
MATERIAL: SEE NOTES
FINISH: SEE NOTES
TITLE: NERLITE SMART SERIES RING LIGHT QSG (PDF AND PRINT)

OMRON MICROSCAN

SIZE	DWG. NO.	REV
B	83-9200047-02	A

SCALE: 1:1 | Solidworks 2017 | SHEET 3 OF 3