

# Duct-O Wire

## CAS-3L100/CAS-3L100 DUPLEX

- This product incorporates IR Laser Protection Class 2; visible laser light.
- Do Not Stare into The Laser Beam!
- This unit may not be suitable for all applications.
- Before installation you will need a qualified technician to verify this unit will work with your application.

The Duct-O-Wire CAS-3L100 Data Logic Two Event Laser Collision Avoidance Kit comes with (1) Laser Sensor Units, (1) Sensor Mounting Brackets and Hardware, (1) 10 Meter Data Cables, (1) DIN Mounted Power/Relay Module, (1) Reflector Arrays with Mounting Hardware, Schematic Sheets and Warning Labels.

**MAKE CERTAIN THAT THE POWER SUPPLY IS DISCONNECTED BEFORE INSTALLING, REPAIRING, OR MAKING ADJUSTMENTS TO THIS DEVICE. THIS DEVICE IS TO BE INSTALLED BY QUALIFIED ELECTRICAL PERSONNEL ONLY.**

### *MOUNTING AND ALIGNMENT*

1. Mount sensor and reflector using supplied bracket and hardware to suitable locations for stability and proper alignment. Use 3 point alignment method to ensure the laser and reflector are in a straight line, both horizontally and vertically true.
2. Connect the supplied data cable to the sensor and power/relay module per the drawing.
3. Attach the supplied Laser Warning Label in the immediate vicinity of the sensor unit.
4. Connect 110 VAC to the transformer per the schematic drawing.
5. A visible red light will be seen from the sensor to the reflector. **Do Not Stare into the Laser beam.**




### *SENSOR PROGRAMMING*

***Output 1 set for slow down approach***

***Output 2 set for stop***

***Output 3 can be used to wire with an alarm or strobe light to indicate dirty sensor or low signal from reflector.***

***(Wait for approximately 5 min to allow the sensor to warm up or until sensor is warm to the touch)***

1. Press and hold both  up down buttons simultaneously and hold for approximately 3 seconds or until display reads output 1 output 2 and Hysteresis then release.
2. Select **Output 1** using the up-down buttons .
3. Press and release set button.
4. Select **switching point** using arrow buttons .
5. Press and release set button.
6. Program desired distance by holding set button for approximately ½ second then release. (See picture 3 on following page)  
This will allow you to move cursor and the selected number position.
7. Use arrow buttons to increase or decrease distance.
8. Once desired distance is shown press and hold set button to save.
9. ***\*Repeat process for Output 2 (stop distance)***

**\*Important\* PRESS AND HOLD ESC TO DISPLAY DISTANCE.**

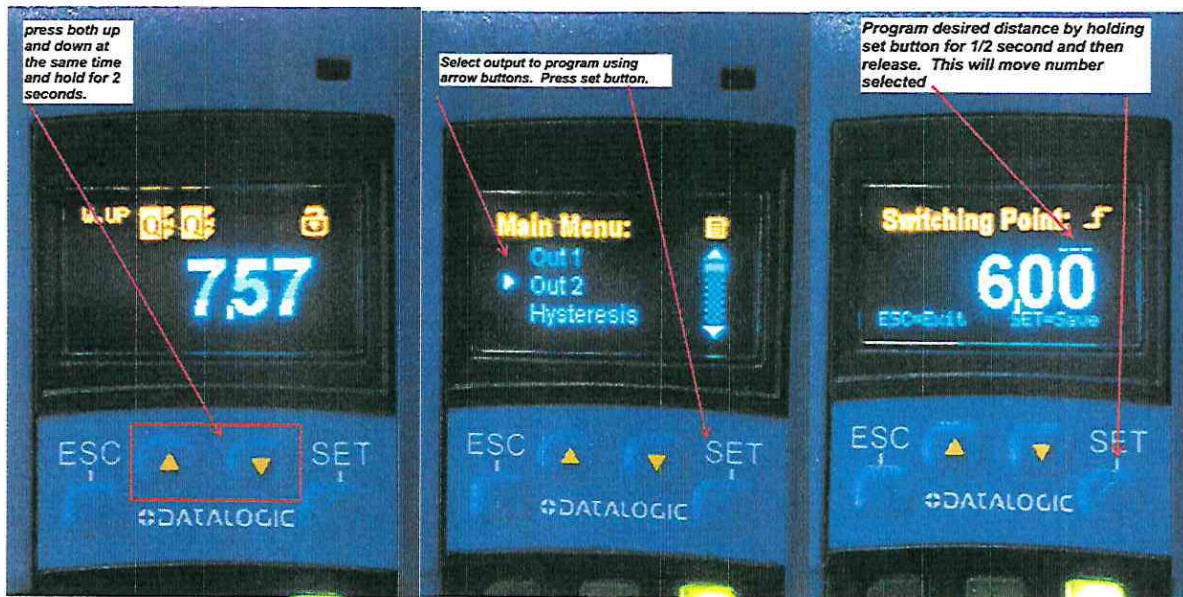
**YOU MUST EXIT OUT OF THE SET UP MENU BEFORE SENSOR WILL OPERATE.**

**\*Important\* If sensor is not on reflector the system will not operate correctly. The sensor beam must be on reflector target.**

# Duct-O Wire

## CAS-3L100/CAS-3L100 DUPLEX

*\*Note: Be sure and verify these sensors are correct for your application and environment.*



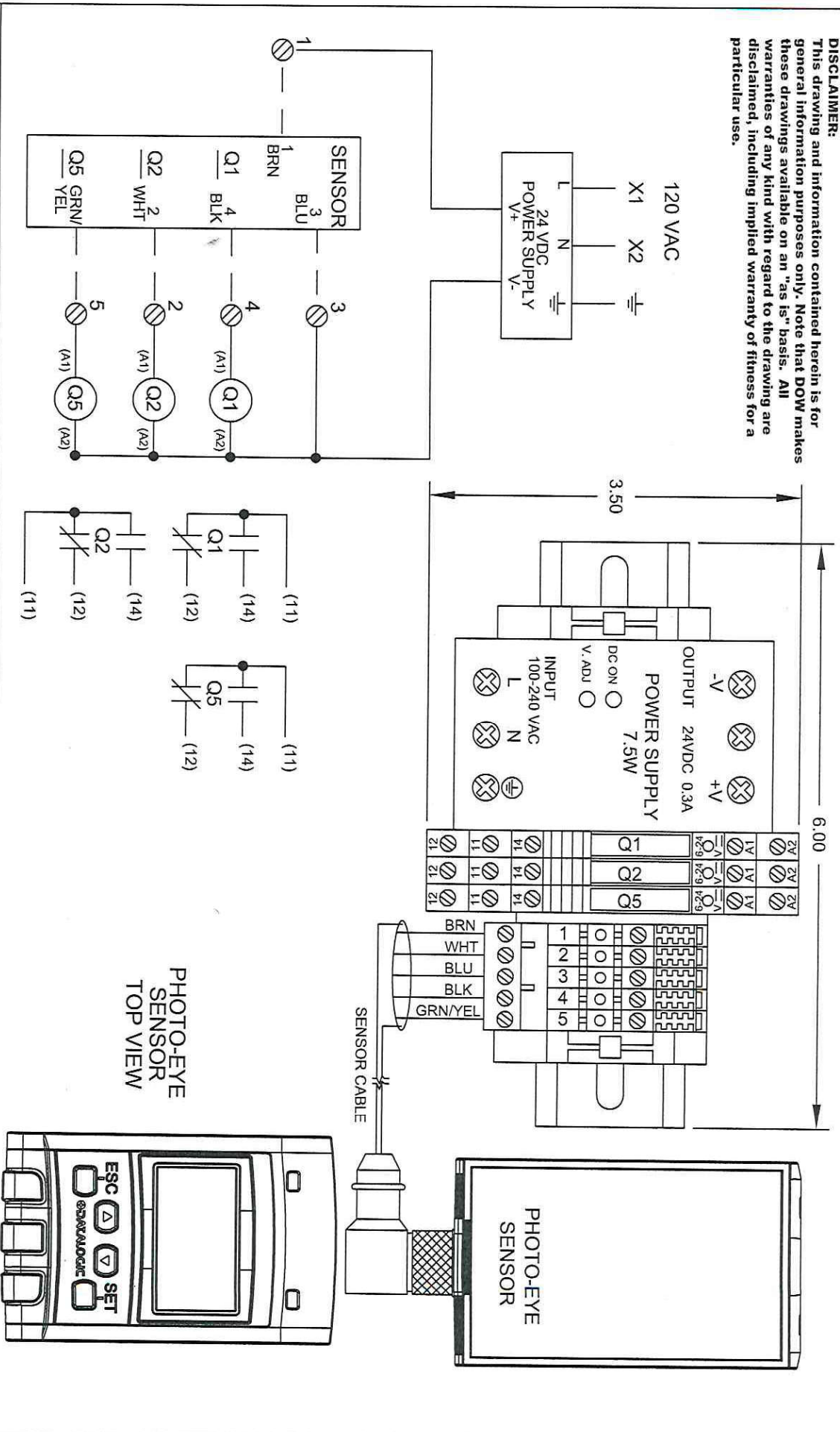
For CAS-3L100 DUPLEX units repeat steps on other sensor.

## CAS-3L100/CAS-3L100 DUPLEX

The CAS-3L100/CAS-3L100 Duplex systems are a 2 Event Laser Reflective Sensing Kit that is similar in function as our CAS-2L100/CAS-2L100 Duplex systems. The one added feature is a 3<sup>rd</sup> out-put option that can be used to detect a dirty reflector within the operating range of 3-100 feet. Like our other systems, if a reflector is covered in enough dust, it will not reflect the laser beam back to the sensor and the system will fail to slow down or stop the crane. Therefore, routine cleaning of the sensor and reflector is required. The 3<sup>rd</sup> out-put can be wired with some relay logic to a strobe or an alarm to indicate the reflector or sensor is dirty. The 3<sup>rd</sup> output is only to indicate a possible "low strength signal" due to a dirty reflector and is not to be used as a "safety" or "Warning" alarm.



**DISCLAIMER:**  
 This drawing and information contained herein is for general information purposes only. Note that DOW makes these drawings available on an "as is" basis. All warranties of any kind with regard to the drawing are disclaimed, including implied warranty of fitness for a particular use.



NOTES:

TOLERANCES: PLUS OR MINUS  
 FRACTIONS: 1/32"  
 .X  
 .XX -015  
 .XXX -010  
 .XXXX -005  
 .XXXX -NTD.

HOLE  
 STD. TOL:  
 L 'S

FINISH: 63 MAX.  
 .002"

MATL:	PART NO.:
FINISH:	ASSY NO.:



**DUCT-O-WIRE COMPANY**  
 1351 WEST SECOND ST.  
 OCONOMOWOC, WI 53066  
 800-434-0062

TITLE:  
**CAS-3L100 LASER COLLISION AVOIDANCE SYSTEM**

DATE: 04/10/23  
 DRAWN BY: APL  
 APPROVED BY:

REV. NO.:  
 SHEET 1 of 1  
 JOB NO:  
 DRAWING NO.: CAS-3L100

REV	DESCRIPTION	DATE	APPROVED

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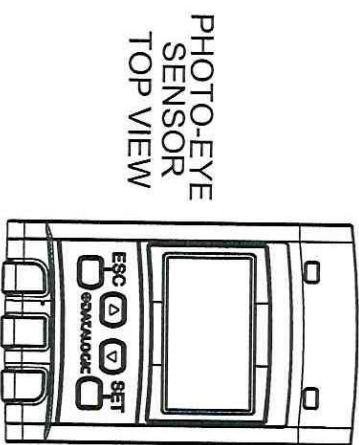
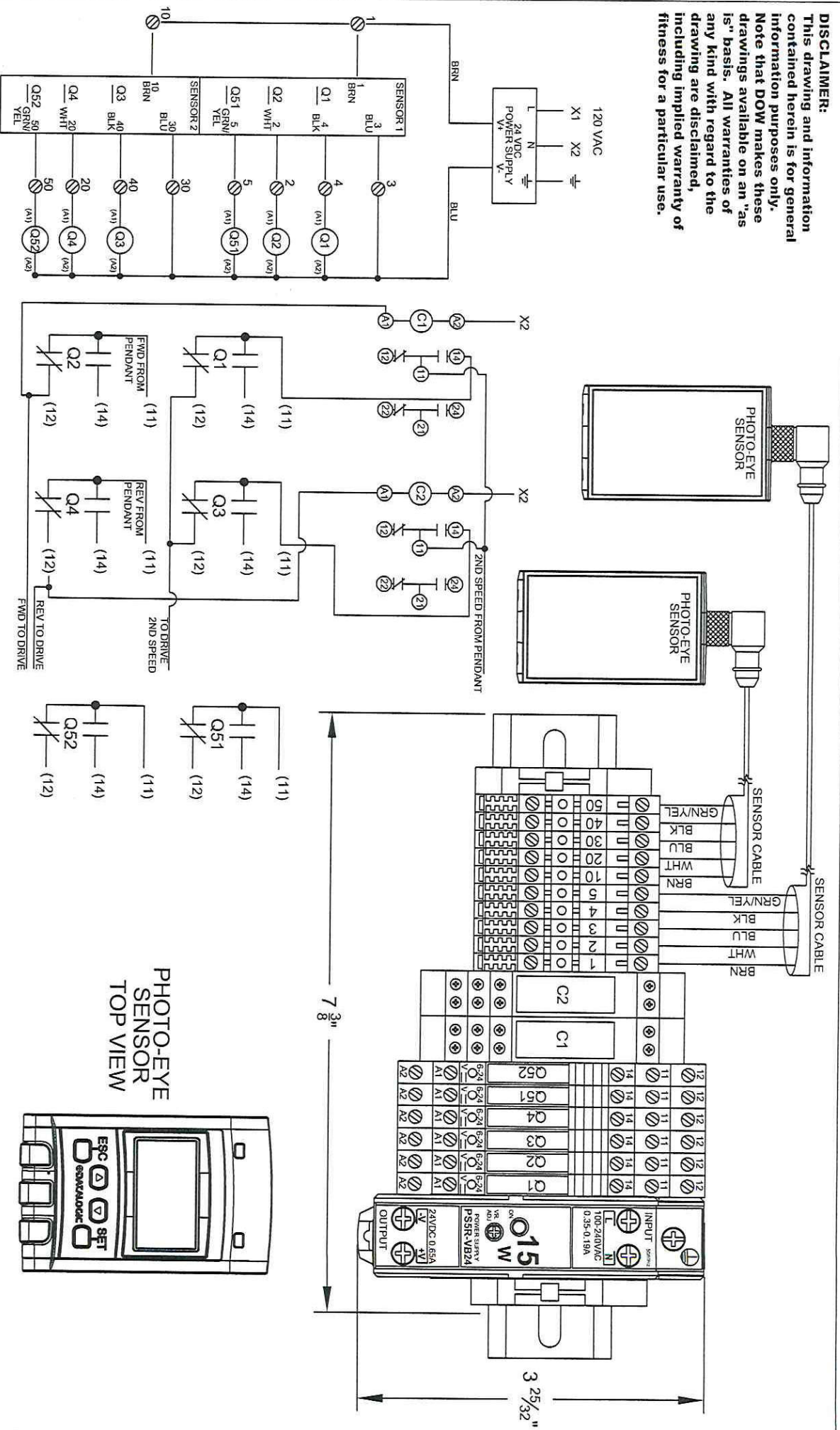


PHOTO-EYE  
 SENSOR  
 TOP VIEW

**TOLERANCES: PLUS OR MINUS**

FRACTIONS: 1/32"  
 X -0.15  
 XX -0.10  
 XXX -0.05  
 .XXXX -NTD.

**NOTES:**

MATL: \_\_\_\_\_ PART NO: \_\_\_\_\_  
 FINISH: \_\_\_\_\_ ASSY NO: \_\_\_\_\_

**DUCT-O-WIRE COMPANY**  
 1351 WEST SECOND ST.  
 OCONOMOWOC, WI 53066  
 800-434-0082

HOLES  
 STD. TOL:  
 L S

C1 AND C2 ARE 120 VAC COIL

**TITLE:** CAS-3L100 DUPLEX LASER COLLISION AVOIDANCE

FINISH: 63 MAX.  
 .002"

PLEASE REVIEW WIRING SCHEMATIC FOR THIS SYSTEM BEFORE INSTALLATION TO ENSURE COMPATIBILITY FOR YOUR INTENDED PURPOSE.

**DATE:** 4/11/23 **DRAWN BY:** APL **APPROVED BY:** \_\_\_\_\_ **SCALE:** \_\_\_\_\_

REV

DESCRIPTION

**REV. NO.:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **APPROVED:** \_\_\_\_\_ **SHEET** 1 of 1 **JOB NO.** \_\_\_\_\_ **DRAWING NO.:** CAS-3L100 DUPLEX