

Duct-O-Wire

CAS-2L100 Laser Collision Avoidance Kit

Installation and Operating Instructions

Effective June 1, 2012

- ▶ This product incorporates IR Laser Protection Class 2; visible laser light.
- ▶ Do Not Stare Into The Laser Beam!

The Duct-O-Wire CAS-2L100 Two Event Laser Collision Avoidance Kit comes with (1) Laser Sensor Unit, (1) Sensor Mounting Bracket and Hardware, (1) 10 Meter Data Cable, (1) DIN Mounted Power / Relay Module, (1) Reflector Array with Mounting Hardware, Schematic Sheet and Warning Label.

Laser Class 2 Max Power 4.1 mW Time Base 100 s Pulse Duration 1.3 ms
Wave Length 650 mm Compliance: 21 CFR PART 1040 EN60825-1:2003-10

MAKE CERTAIN POWER SUPPLY IS DISCONNECTED BEFORE INSTALLING, REPAIR, 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 Light.

SENSOR PROGRAMMING - FEET MODE (Use a pen or small blunt object for improved response)

NOTE: ALL BUTTON PRESSES MUST BE DONE WITHIN 15 SECONDS

1. Press and release the **Mode/Enter** button until **EF** is displayed. (multiple presses)
2. Press and release the **SET** button.
3. Press and release the **Mode/Enter** button until **Uni** is displayed. (6 button presses)
4. Press and hold the **SET** button until **FEET** is displayed, and release.
5. Press and release the **Mode/Enter** button once to confirm.
6. Wait 15 to 20 seconds and the unit will return to the "run" mode.
7. When sensor is in Run mode, distance to target is displayed in feet.

SENSOR PROGRAMMING – SET POINT 1 (first event distance)

NOTE: If the desired distance is passed, the counter will need to be advanced until the set point is displayed again. ALL BUTTON PRESSES MUST BE DONE WITHIN 15 SECONDS.

1. Press and release the **Mode/Enter** button until **SP 1** is displayed. (2 presses)
2. Press and hold the **SET** button until the desired distance for the first event is displayed, then release.
3. NOTE: Minimum distance is 1 meter (3.28 feet).
4. Press and release the **Mode/Enter** button once to confirm. The display will show **SP 1**.
5. Wait 15 to 20 seconds and the unit will return to the "run" mode.

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SENSOR PROGRAMMING – ENABLE SET POINT 2

NOTE: ALL BUTTON PRESSES MUST BE DONE WITHIN 15 SECONDS

1. Press and release the **Mode/Enter** button until **OU2** is displayed. (3 presses)
2. Press and hold **SET** button until **Hno** is displayed, then release.
3. Press and release the **Mode/Enter** button to confirm.
4. Wait 15 to 20 seconds and the unit will return to the “run” mode.

SENSOR PROGRAMMING – SET POINT 2 (second event distance)

NOTE: ALL BUTTON PRESSES MUST BE DONE WITHIN 15 SECONDS

1. Press and release the **Mode/Enter** button until **SP 2** is displayed. (4 presses)
2. Press and hold the **SET** button until the desired distance for the second event is displayed, then release.
3. NOTE: Minimum distance is 1 meter (3.28 feet).
4. Press and release the **Mode/Enter** button once to confirm. The display will show **SP 2**.
5. Wait 15 to 20 seconds and the unit will return to the “run” mode.

YOUR LASER COLLISION AVOIDANCE SYSTEM SHOULD NOW BE READY TO OPERATE.
PLEASE ENSURE THAT THE LED’S ON THE CONTROL UNIT LIGHT WHEN CRANE IS MOVED TO EACH SET POSITION.

FACTORY RESET – ONLY IF REQUIRED

1. In the event that improper selections were made during the previous sensor programming steps, it may be necessary to reset the unit to factory settings. Perform the following steps **ONLY** if required or the sensor is not responding as intended.
2. Press and release the **Mode/Enter** button until **EF** is displayed. (multiple presses required)
3. Press and release the **SET** button once.
4. Press and release the **Mode/Enter** button until **rES** is displayed.
5. Press and hold **Set** button until ---- (4 dashes) is displayed.
6. Confirm by pressing the **Mode/Enter** button once.
7. After performing the factory reset you must repeat the SENSOR PROGRAMMING steps outlined in the steps above.

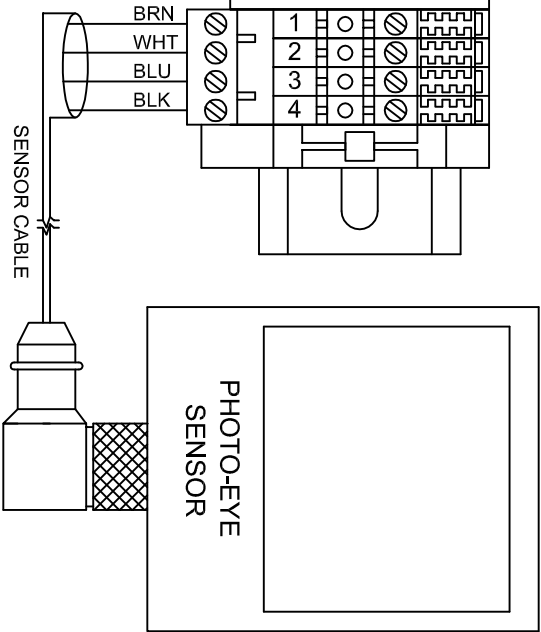
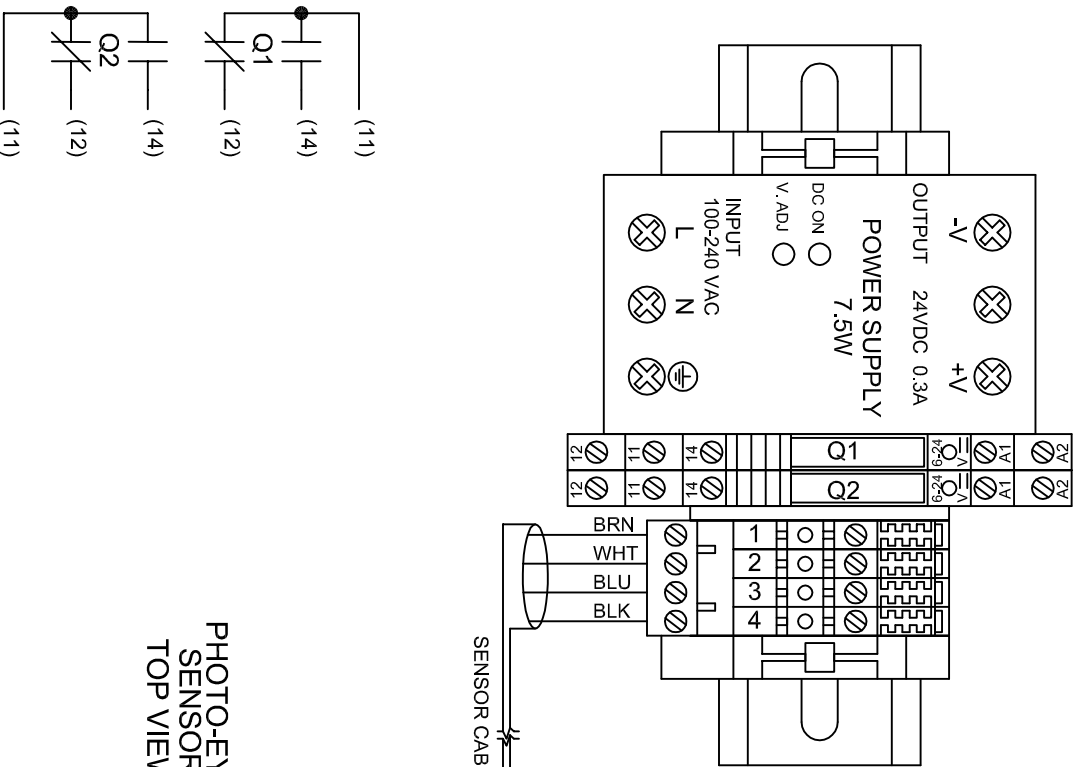
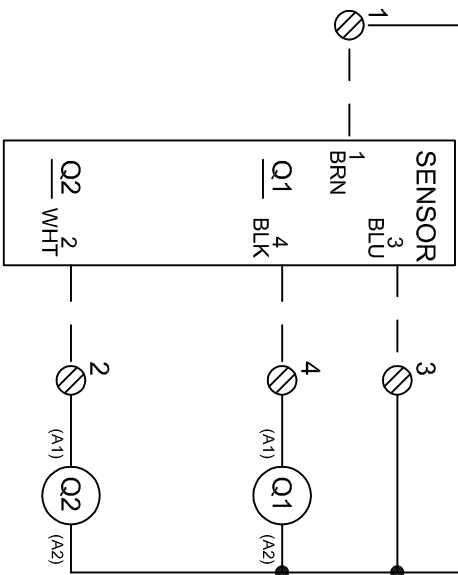
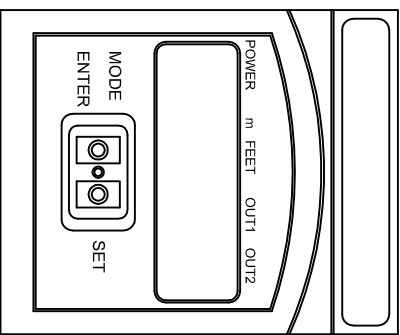



PHOTO-EYE
SENSOR
TOP VIEW



| | | | |
|---|------------------------|--------------------------------------|-------------------------|
| <div>TOLERANCES: PLUS OR MINUS</div> | | <div>NOTES:</div> | |
| <div>FRACTIONS: 1/32"</div> | | <div>MAT'L:</div> | <div>PART NO:</div> |
| <div>.X -015 .XX -010 .XXX -005 .XXXX -NTD.</div> | | <div>FINISH:</div> | <div>ASSY NO:</div> |
| <div>HOLES STD. TOL: L S</div> | | | |
| <div>FINISH: $\sqrt{\text{63}}/\text{MAX.}$ $\sqrt{\text{.002}}$</div> | | | |
| <div>REV</div> | <div>DESCRIPTION</div> | <div>DATE</div> | <div>APPROVED</div> |
| <div>TITLE: CAS-2L100 LASER COLLISION AVOIDANCE SYSTEM</div> | | | |
| <div>DATE: 06/04/12</div> | | <div>DRAWN BY: SJK</div> | <div>APPROVED BY:</div> |
| <div>REV. NO:</div> | | <div>SHEET 1 of 1</div> | <div>JOB NO</div> |
| | | <div>DRAWING NO: CAS-2L100</div> | |
| <div><div><div>DUCT-O-WIRE COMPANY</div><div>P.O. BOX 519 CORONA, CA 92878 800-543-8855</div><div>1361 WEST SECOND ST. OCONOMOWOC, WI 53066 800-434-0062</div></div></div> | | | |