



Connecting  
Smart Vision Lights  
to  
In-Sight I/O Boards

**COGNEX**

# Connecting Smart Vision Light to In-Sight I/O Boards

## Overview

The Smart Vision Light connects to 24VDC power supply and then requires a trigger signal. The Smart Vision Light will illuminate for the duration of the strobe/trigger pulse. By using the high speed output HS-OUT1 this can easily be accomplished. Please note however you CAN run the light in continuous mode if strobing is not wanted on S30, S75, R80, R130, SOBL and L300 series of lights.

The OverDrive™ series of lights are strobe only. The OverDrive™ series of lights can NOT be run in constant “on” mode. OverDrive series begin with OD in part numbers. OverDrive lights include ODS30, ODS75, ODR80, ODR130 and ODL300.

Simply connect the Smart Vision Light to 24VDC and then connect the trigger signal to the In-Sight Micro HS-OUT1 using the attached connection diagrams. Set High Speed Output # 1 to Strobe and the Smart Vision Light will illuminate for the duration of the exposure of the image acquisition.

# Cognex to Smart Light Connections

## CIO-1450 Connections

### LIGHT CONNECTIONS

- Connect +24VDC to SMART LIGHT +24VDC (Brown Wire)
- Connect 0VDC to SMART LIGHT Common (Blue Wire)
- Connect HSOUT1 to SMART LIGHT Trigger (Black Wire)
- Connect +24VDC to Gray Wire (Gray Wire = Analog Intensity Control)

### CIO-1450 CONNECTIONS

- Connect HSOUT1 to SMART LIGHT Trigger (Black Wire)
- Connect HSOUT1 to 2.2K Ohm resistor
- Connect other end of 2.2K Ohm resistor to 24VDC

### In-Sight SOFTWARE CONFIGURATION

- Set In-Sight I/O to Expansion Board
- Set HSOUT1 to Strobe
- Set HSOUT1 Details to RISING EDGE

The image shows two screenshots from the In-Sight software configuration interface. The first screenshot is titled "IS\_5400\_JRVD1 - Discrete Output Settings" and displays a table of output lines. The second screenshot is titled "IS\_5400\_JRVD1 - Line 9 Output..." and shows the configuration for the HSOUT 1 line.

Line	Name	Type
0	Line 0	Programmed
1	Line 1	Programmed
2	Line 2	Programmed
3	Line 3	Programmed
4	Line 4	Programmed
5	Line 5	Programmed
6	Line 6	Programmed
7	Line 7	Programmed
8	HSOUT 0	Programmed
9	HSOUT 1	Strobe
10	Green LED	Programmed
11	Red LED	Programmed

Output Module: I/O Expansion Module

Strobe Trigger

Rising Edge

Falling Edge

# CIO-1450 I/O Connections

