

# Contrinex Safety Light Curtains Access Control



## Safety light curtain with 300mm or 400mm beam gap

- Protective height from 832 to 1232 mm [32.76 to 48.5 in]
- Operating distance from 1 to 15 m [3.28 to 49.21 ft], 10 to 50 m [32.81 to 164.04 ft] – configurable
- M12 quick-disconnect (order cable separately)
- Dual PNP outputs
- Sold as sender/receiver kits
- Mounting brackets included with all units.
- Instruction manual and testing rod included with sender unit.
- IP65, IP67 rated
- Type 4 and Category 4 PLE



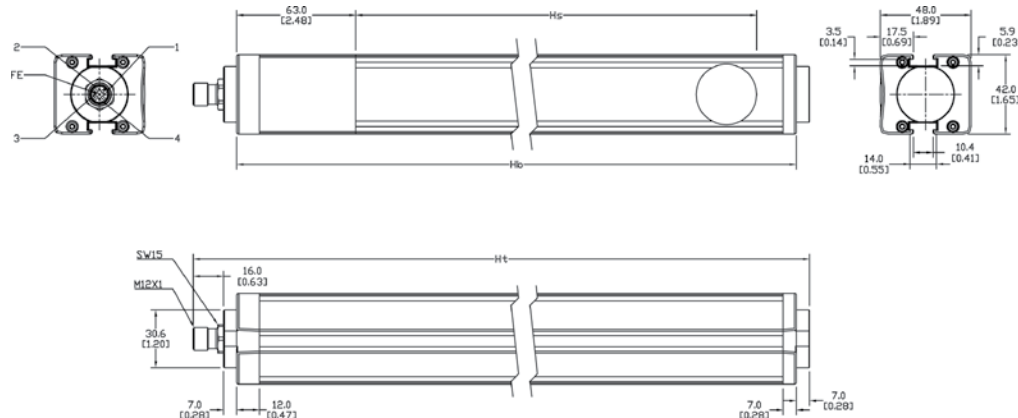
**YCA-50 Series Safety Light Curtain Selection Table**

Part Number	Price	Protective Height (Hs) mm [in]	Housing Height (Hb) mm [in]	Total Height Ht mm [in]	No. of Beams	Current Consumption [mA]	Response Time [ms]	MTTFd (years)	DC <sub>avg</sub>	Weight g [lb]	Resolution mm [in]
<a href="#">YCA-50K4-3400-G012</a>	\$813.00	832 [32.76]	995 [39.17]	1025 [40.35]	3	35 (sender) 75 (receiver)	4.2	108	96.9%	4280 [9.44]	400 [15.75]
<a href="#">YCA-50K4-4300-G012</a>	\$881.00	932 [36.69]	1124 [44.25]	1154 [45.43]	4	35 (sender) 75 (receiver)	5.0	100	96.9%	4840 [10.67]	300 [11.81]
<a href="#">YCA-50K4-4400-G012</a>	\$944.00	1232 [48.50]	1382 [54.41]	1412 [55.59]	4	35 (sender) 75 (receiver)	5.0	100	96.9%	5940 [13.10]	400 [15.75]

Note: AutomationDirect does not recommend using these light curtains with any device other than our Safety Relay Light Curtain Controllers.

## Dimensions

mm [in]



## Pin outs

Assignment	Function	Pins/Wires on Sender		Pins/Wires on Receiver	
		M12	Cable	M12	Cable
Supply Voltage	24VDC for channel 1; 0V for channel 2	1	Brown	1	Brown
Supply Voltage	0V for channel 1; 24VDC for channel 2	3	Blue	3	Blue
Sensing Range Selection	24V: 1-15m 0V: 10-50m	2	White	–	–
Sensing Range Selection	24V: 10-50m 0V: 1-15m	4	Black	–	–
Output	OSSD1 (Output Single Switching Device)	–	–	2	White
Output	OSSD2 (Output Single Switching Device)	–	–	4	Black
Functional Earth	Shield (Ground)	FE	Gray	FE	Gray

Note: Cable color represents standard industrial pinout. Confirm the specific color and pinout during installation.

# Contrinex Safety Light Curtains

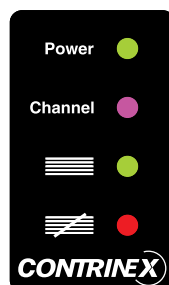
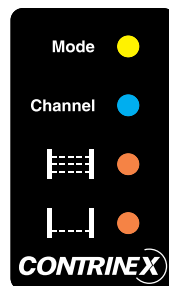
## Access Control

### YCA-50 Series Safety Light Curtain Specifications

<b>Beam Gap</b>	<b>300 or 400mm</b>
<b>Safety Level</b>	Category 4, PL e (EN/ISO 13849-1). Type 4 (IEC 61496-1/2)
<b>Supply Voltage</b>	24VDC $\pm$ 15%
<b>Current Consumption</b>	See Selection Table
<b>Outputs</b>	2 PNP outputs, short-circuit protected
<b>Output Current</b>	Maximum 0.2 amps per output (@ 50°C/122°F)
<b>Output Voltage ON minimum</b>	1.0 V less than the supplied operating voltage at 25°C (77°F)
<b>Output Voltage OFF</b>	<1.0 V
<b>Leakage Current</b>	< 1mA
<b>Maximum Load Inductance</b>	100mH
<b>Response Time</b>	See Selection Table
<b>Sender Wavelength</b>	IR 880nm
<b>Operating Range</b>	1 to 15m / 10 to 50m (configurable)
<b>Protection Class</b>	Class III (IEC 61140)
<b>Startup Delay</b>	< 0.5 seconds
<b>Vibration Resistance</b>	10 to 55Hz, 0.35 mm amplitude, 1 octave/min., 20 sweeps for each axis
<b>Shock Resistance</b>	10g during 16ms, 1000 times for each axis
<b>Light Immunity</b>	Incandescent lamp: 3000lx max. (light intensity on receiver surface) Xenon flash tube: flash duration 1.2 ms max. with a frequency of 2Hz max. (TS 61496)
<b>Operating Temperature</b>	0 to 50°C (32 to 122°F)
<b>Storage Temperature</b>	-25 to 70°C (-13 to 158°F)
<b>Humidity</b>	15 to 95% (non-condensing)
<b>Degree of Protection (EN 60529)</b>	IP65, IP67
<b>Ambient Brightness</b>	TS 61496-2
<b>Reference Standards</b>	IEC 61496-1, IEC 61496-2
<b>Housing Material</b>	Aluminum, PMMA (Polymethylmethacrylate [acrylic]) front screen
<b>Material of Upper and Lower Cover</b>	PA (Polyamide [nylon]) + 30% fiberglass
<b>Material of Optics</b>	PMMA (Polymethylmethacrylate [acrylic])
<b>Cable Runs</b>	10m maximum (at 10 nF capacitive load)
<b>Approvals</b>	CE, UL file #E321951, RoHS, TUV

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at [www.AutomationDirect.com](http://www.AutomationDirect.com)

## LED Status Indicators



### Sender

LED	Access protection (YCA)
Mode	Off when maximum operating range 15m
	Blue when maximum operating range 50m
	Red or Purple in case of wiring error
Channel	Blue when channel 1 is selected
	Purple when channel 2 is selected
Alignment	Steady orange when the screen is not fully aligned
	Flashing orange when the first third of the screen is aligned
	Off when screen is fully aligned
Alignment	Steady orange when the lowest beam is not aligned
	Flashing orange when the lowest beam is aligned
	Off when screen is fully aligned

### Receiver

LED	Access protection (YCA)
Power	Green when power is ON
Channel	Blue when channel 1 is selected
	Purple when channel 2 is selected
Status	Green when OSSD outputs are ON
Status	Red when OSSD outputs are OFF

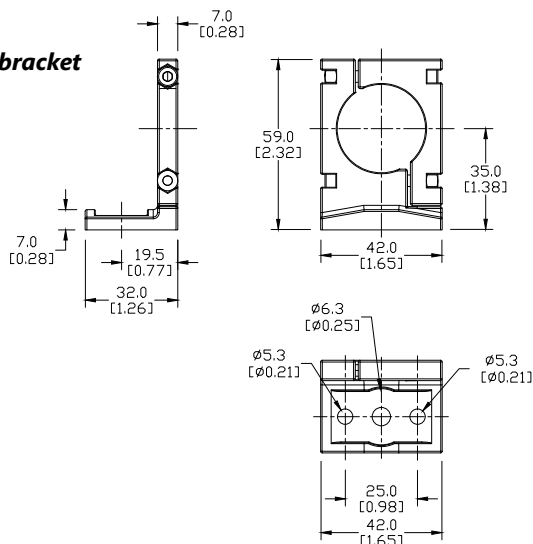
# Contrinex Safety Light Curtains Accessories

Safety Light Curtains Accessories Overview			
Part Number	Price	Description	Use With
<a href="#"><u>YXL-0001-000</u></a>	\$294.00	Laser alignment tool for safety light curtains, class 2 laser, range up to 50 meters, useable and clippable to YBB and YCA light curtains models, 2 AAA batteries included.	YBB Series YCA Series
<a href="#"><u>YXW-0001-000</u></a>	\$8.25	Safety light curtain mounting brackets for top and bottom mounting. Plastic. 2/pk.	
<a href="#"><u>YXW-0003-000</u></a>	\$8.25	Safety light curtain sliding T-nuts for side mounting. Metal. 2/pk. Ideal torque from M5x0.8 thread is 6 Nm (4.42 lb-ft, 53.1 lb-in.).	

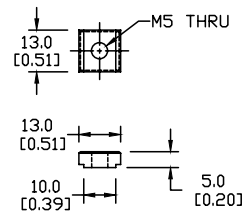
[YXW-0001-000](#)[YXW-0003-000](#)[YXL-0001-000](#)

## Dimensions mm [in]

### Mounting bracket



### T-Nuts for side mounting

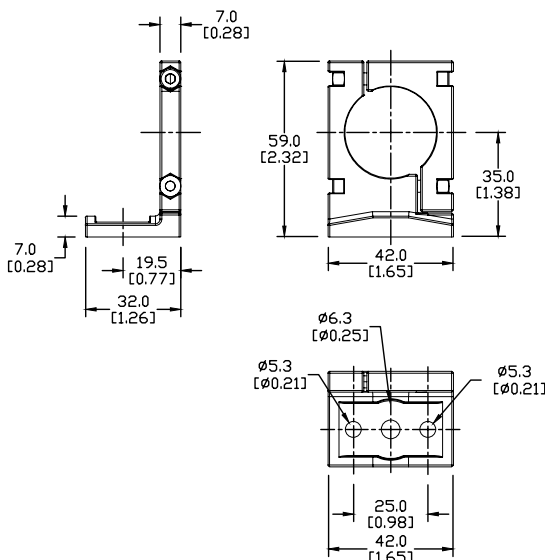


# Contrinex Safety Light Curtains Accessories

## Mounting bracket



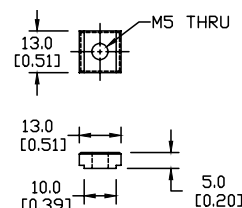
YXW-0001-000



## T-Nuts for side mounting



YXW-0003-000



## Laser Alignment Tool

- Clips on YBB and YCA Curtains/Barriers
- High quality lens for narrow output beam
- Up to 50m [164ft] range
- <1mW output power
- Standard AA batteries included

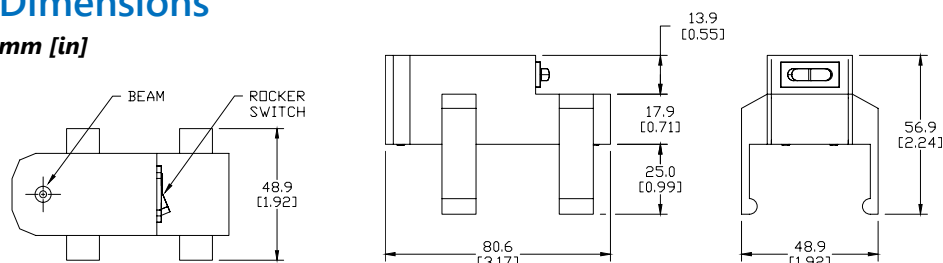


YXL-0001-000

Laser Alignment Tool YXL-0001-000 Specifications	
<b>Supply Voltage Range</b>	<b>2.5 – 3.3 VDC</b>
<b>Laser Module Optical Output Power</b>	<1mW (Class 2)
<b>Range</b>	50m (164ft)
<b>Ambient Temperature Range</b>	0-40°C (32-104°F)
<b>Storage Temperature Range</b>	0-60°C (32-140°F)
<b>Wavelength</b>	655nm ± 1%
<b>Laser Beam Spot Size at 10m</b>	< 10mm
<b>Divergence Angle</b>	1.1 mrad
<b>Housing Material</b>	PA with 30% fiberglass
<b>Mounting</b>	Clippable onto YBB / YCA devices
<b>Weight</b>	95g (0.21 lb)

## Dimensions

mm [in]



See our website [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete engineering drawings.

### Warning: Safety products sold by AutomationDirect are Safety components only.

The purchaser/installer is solely responsible for the application of these components and ensuring all necessary steps have been taken to assure each application and use meets all performance and applicable safety requirements and/or local, national and/or international safety codes as required by the application. AutomationDirect cannot certify that our products used solely or in conjunction with other AutomationDirect or other vendors' products will assure safety for any application.

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