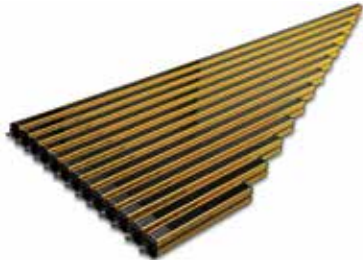


# Contrinex Safety Light Curtains – Access Control



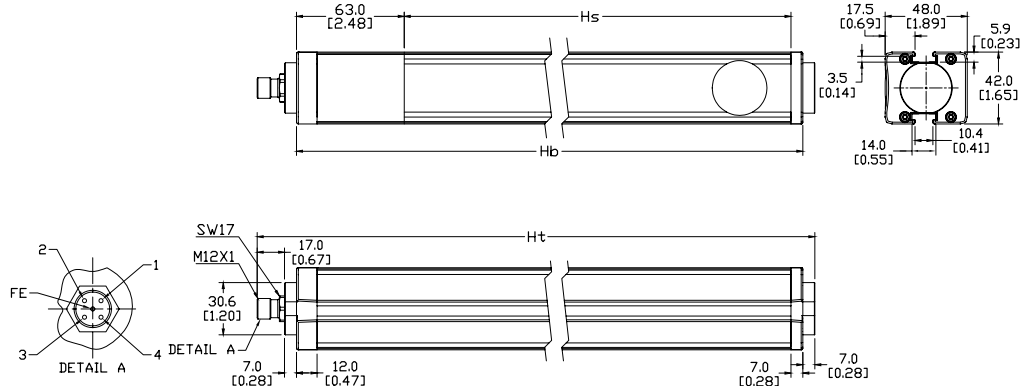
## Safety light curtain with 300 or 400mm beam gap

- Order sender and receiver to make a complete sensor.
- Protective height from 832mm to 1232mm
- Operating distance from 1 to 15m, 10 to 50m - configurable
- M12 quick-disconnect (order cable separately)
- Dual PNP outputs
- 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]	Number of Beams	Current Consumption [mA]	Response Time [ms]	MTTF <sub>d</sub> (years)	DC <sub>avg</sub>	Product Weight per Unit	Resolution
<b>YCA-50S4-3400-G012</b> <b>Sender</b>	\$350.00	832 [32.76]	995 [39.17]	1025 [40.35]	3	35	4.2	112	97%	3039g 6.70 lbs	400
<b>YCA-50R4-3400-G012</b> <b>Receiver</b>	\$415.00					75					
<b>YCA-50S4-4300-G012</b> <b>Sender</b>	\$380.00	932 [36.69]	1124 [44.25]	1154 [45.43]	4	35	5.0	105	97%	3221g 7.10 lbs	300
<b>YCA-50R4-4300-G012</b> <b>Receiver</b>	\$450.00					75					
<b>YCA-50S4-4400-G012</b> <b>Sender</b>	\$410.00	1232 [48.50]	1382 [54.41]	1412 [55.59]	4	35	5.0	105	97%	3946g 8.70 lbs	400
<b>YCA-50R4-4400-G012</b> <b>Receiver</b>	\$480.00					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

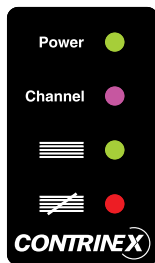
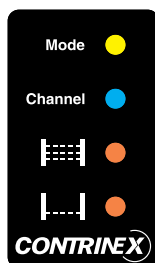
Note: Cable color represents standard industrial pinout. Confirm the specific color and pinout during installation

# Contrinex Safety Light Curtains – Access Control

YCA-50 Series Safety Light Curtain Specifications	
<b>Beam Gap</b>	300 or 400mm
<b>Safety Level</b>	Category 4, PL e (EN/ISO 13849-1). Type 4 (IEC 61496-1/2)
<b>Supply Voltage</b>	24VDC ± 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	
<b>LED</b>	<b>Access protection (YCA)</b>
<b>Mode</b>	Off when maximum operating range 15m Blue when maximum operating range 50m Red or Purple in case of wiring error
<b>Channel</b>	Blue when channel 1 is selected Purple when channel 2 is selected
<b>Alignment</b>	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
<b>Alignment</b>	Steady orange when the lowest beam is not aligned Flashing orange when the lowest beam is aligned Off when screen is fully aligned

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

# Contrinex Safety Light Curtains Accessories

Safety Light Curtains Accessories Overview			
Part Number	Price	Description	Use With
<b>Mirror Columns</b>			
<b>YXC-1060-M11</b>	\$640.00	Safety light curtain mirror column. 1060mm housing height, 974mm mirror length, aluminum profile with steel floor plates. Powder-varnished yellow (RAL1021) finish. Mounting hardware included.	YBB-xxxx-0150-xxx to YBB-xxxx-0800-xxx units
<b>YXC-1360-M11</b>	\$755.00	Safety light curtain mirror column. 1360mm housing height, 1274mm mirror length, aluminum profile with steel floor plates. Powder-varnished yellow (RAL1021) finish. Mounting hardware included.	YBB-xxxx-0900-xxx to YBB-xxxx-1000-xxxx units YCA-xxxx-3400-xxx and YCA-xxxx-4300-xxx units
<b>YXC-1660-M11</b>	\$875.00	Safety light curtain mirror column. 1660mm housing height, 1574mm mirror length, aluminum profile with steel floor plates. Powder-varnished yellow (RAL1021) finish. Mounting hardware included.	YBB-xxxx-1200-xxx to YBB-xxxx-1400-xxxx units YCA-xxxx-4400-xxx units
<b>YXC-1960-M11</b>	\$995.00	Safety light curtain mirror column. 1960mm housing height, 1874mm mirror length, aluminum profile with steel floor plates. Powder-varnished yellow (RAL1021) finish. Mounting hardware included.	YBB-xxxx-1600-xxx to YBB-xxxx-1700-xxxx units
<b>YXC-1360-M23</b>	\$390.00	Safety light curtain mirror column. 1360mm housing height, 2 x 400 beam gap, aluminum profile with steel floor plates. Powder-varnished yellow (RAL1021) finish. Mounting hardware included.	YCA-xxxx-3400-xxx units
<b>YXC-1360-M24</b>	\$465.00	Safety light curtain mirror column. 1360mm housing height, 3 x 300 beam gap, aluminum profile with steel floor plates. Powder-varnished yellow (RAL1021) finish. Mounting hardware included.	YCA-xxxx-4300-xxx units
<b>Protective Columns</b>			
<b>YXC-1060-F00</b>	\$362.00	Safety light curtain protective column. 997mm housing height, aluminum profile with steel floor plates. Powder-varnished yellow (RAL1021) finish. Mounting hardware included. Two required to protect sender and receiver. 1/pk.	YBB-xxxx-0150-xxx to YBB-xxxx-0800-xxx units
<b>YXC-1360-F00</b>	\$400.00	Safety light curtain protective column. 1297mm housing height, aluminum profile with steel floor plates. Powder-varnished yellow (RAL1021) finish. Mounting hardware included. Two required to protect sender and receiver. 1/pk.	YBB-xxxx-0900-xxx to YBB-xxxx-1000-xxxx units YCA-xxxx-3400-xxxx to YCA-xxxx-4300-xxxx units
<b>YXC-1660-F00</b>	\$432.00	Safety light curtain protective column. 1597mm housing height, aluminum profile with steel floor plates. Powder-varnished yellow (RAL1021) finish. Mounting hardware included. Two required to protect sender and receiver. 1/pk.	YBB-xxxx-1200-xxx to YBB-xxxx-1400-xxxx units YCA-xxxx-4400-xxxx units
<b>YXC-1960-F00</b>	\$451.00	Safety light curtain protective column. 1897mm housing height, aluminum profile with steel floor plates. Powder-varnished yellow (RAL1021) finish. Mounting hardware included. Two required to protect sender and receiver. 1/pk.	YBB-xxxx-1600-xxx to YBB-xxxx-1800-xxxx units
<b>Other</b>			
<b>YXL-0001-000</b>	\$240.00	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.	All
<b>YXW-0001-000</b>	\$6.00	Safety light curtain mounting brackets for top and bottom mounting. Plastic. 2/pk.	
<b>YXW-0003-000</b>	\$6.00	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.).	



### Light Curtain Mirror Columns

- Multi-sided safe guarding of danger zones
- Robust protective profile
- 10% reduction of operating distance for mirror



### Light Curtain Protective Column

- Automatically bounces back after physical shock or vibration.
- Robust baseplate allows radial and vertical alignment.
- Solid aluminum profile



**YXW-0001-000**



**YXW-0003-000**

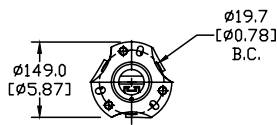
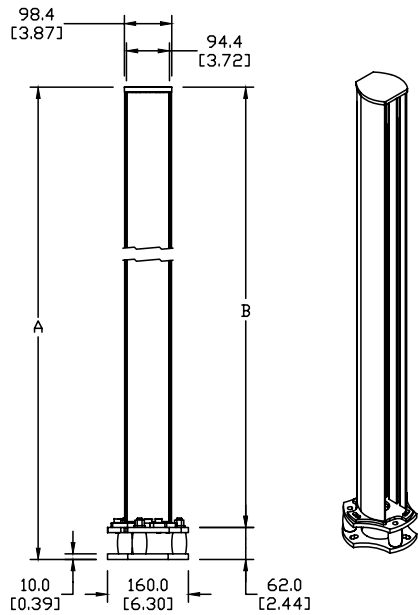


**YXL-0001-000**

# Contrinex Safety Light Curtains Accessories

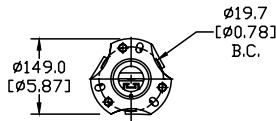
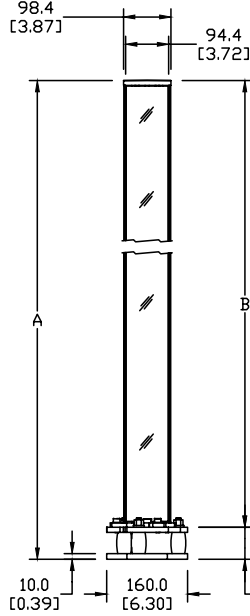
Dimensions mm [in]

## Protective column

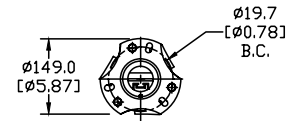
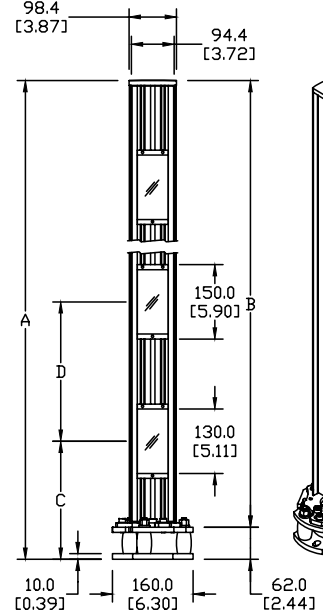


## Mirror column

CONTINUOUS MIRROR



SEGMENTED MIRRORS



## YXC-xxxx-M11

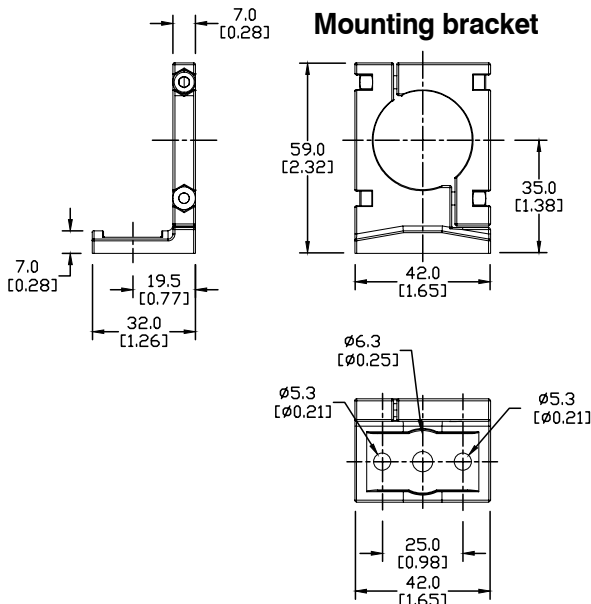
## YXC-1360-Mxx

Safety Light Curtains Protective Columns Dimensions		
Part Number	Total Height A mm [in]	Housing Height B mm [in]
YXC-1060-F00	1060 [41.73]	997 [39.25]
YXC-1360-F00	1360 [53.54]	1297 [51.06]
YXC-1660-F00	1660 [65.35]	1597 [62.87]
YXC-1960-F00	1960 [77.17]	1897 [74.69]

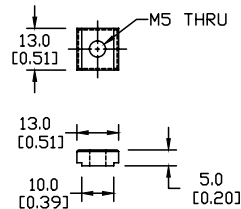
Note: Full and open top caps are provided to accommodate taller units.

Safety Light Curtains Mirror Columns Dimensions				
Part Number	Total Height A mm [in]	Mirror Height B mm [in]	Height to Lowest Beam C mm [in]	Beam Gap D mm [in]
YXC-1060-M11	1060 [41.73]	974 [38.35]	n/a	n/a
YXC-1360-M11	1360 [53.54]	1274 [50.16]	n/a	n/a
YXC-1660-M11	1660 [65.35]	1574 [61.97]	n/a	n/a
YXC-1960-M11	1960 [77.17]	1874 [73.78]	n/a	n/a
YXC-1360-M23	1360 [53.54]	n/a	2 x 400 [2 x 15.75]	300 [11.81]
YXC-1360-M24	1360 [53.54]	n/a	3 x 300 [2 x 11.81]	300 [11.81]

## Mounting bracket



## T-Nuts for side mounting



# Contrinex Safety Light Curtains Accessories

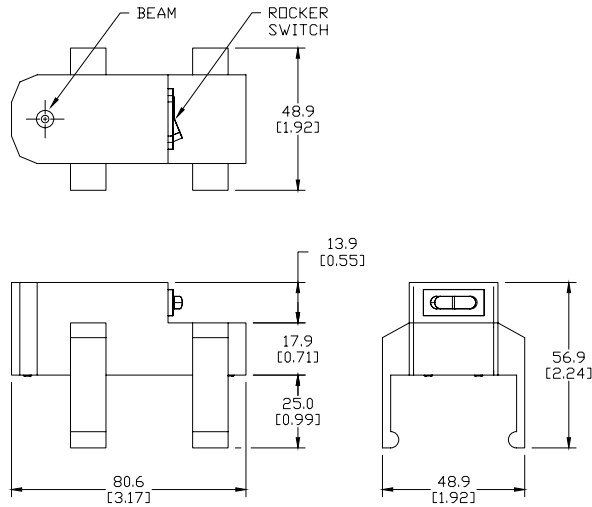


Laser Alignment Tool YXL-0001-000 Specifications	
Supply Voltage Range	2.5 – 3.3 VDC
Laser Module Optical Output Power	<1mW (Class 2)
Range	50m (164ft)
Ambient Temperature Range	0 – 40°C (32 – 104°F)
Storage Temperature Range	0 – 60°C (32 – 140°F)
Wavelength	655nm ± 1%
Laser Beam Spot Size at 10m	< 10mm
Divergence Angle	1.1 mrad
Housing Material	PA with 30% fiberglass
Mounting	clippable onto YBB / YCA devices
Weight	95g (.21 lbs)

## 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

## Dimensions mm [in]



**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.**

**Any person using or applying any products sold by AutomationDirect is responsible for learning the safety requirements for their individual application and applying them, and therefore assumes all risks, and accepts full and complete responsibility for the selection and suitability of the product for their respective application. AutomationDirect does not provide design or consulting services, and cannot advise whether any specific application or use of our products would ensure compliance with the safety requirements for any application.**