

# Safetindex

Safety light curtains



FINGERPROTECTION





**LIGHT CURTAINS  
FINGER PROTECTION  
14 MM**

**MAIN FEATURES**

- Resolution: 14 mm
- Operating range: 0.25 ... 3.5 m
- Protective height: 142 ... 1690 mm
- Category 4, PL e according to EN/ISO 13849-1 (former EN 954-1)
- Type 4 according to IEC 61496-1 and -2
- Certified TÜV, CE and UL
- Impervious: degrees of protection **IP 65, IP 67 & IP 69K**
- 2-channel selection
- Optical synchronization
- Permanent autocontrol

**TECHNICAL DATA**

Dimensions	42 x 48 x Ht mm
Supply voltage range	24 VDC ± 20 %
Current consumption sender	50 mA max. / 1.5 W max.
Current consumption receiver (excl. load)	160 mA max. / 4.7 W max.
Output current	0.2 A max. per output
Safety level (EN/ISO 13849-1)	Category 4, PL e
Safety type (IEC 61496-1 and -2)	Type 4
Protection class (IEC 61140)	III
Ambient temperature range	0 ... +50 °C (+32 ... +122 °F)
Storage temperature range	-25 ... +70 °C (-13 ... +158 °F)
Degree of protection (EN 60529)	IP 65 & IP 67 / IP 65, IP 67 & IP 69K (-69K)
Housing material	Aluminum
Material of optical parts	PMMA
Operating range	0.25 ... 3.5 m
Sender wavelength	IR 950 nm

**HOUSING**

Aluminum profile 42 x 48 mm with dual fixing groove. IP 69K models totally impervious.

**ELECTRONIC PROTECTION**

Safetinex light curtains are self-protected against overloads and short-circuits. They can also withstand short high-voltage overloads.

**CONNECTION**

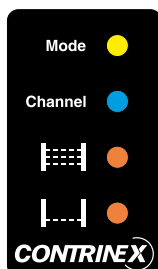
Safetinex light curtains with M12 5-pole connector are standard. Versions with PUR cable, 2 m, 5 m or 10 m long, are available on request.

**DOCUMENTATION**

Detailed data sheets for these products can be found on the Contrinex website [www.contrinex.com](http://www.contrinex.com) or ordered free of charge from our distributors.

**LEDS**

LED indicators on the YBB **sender** unit



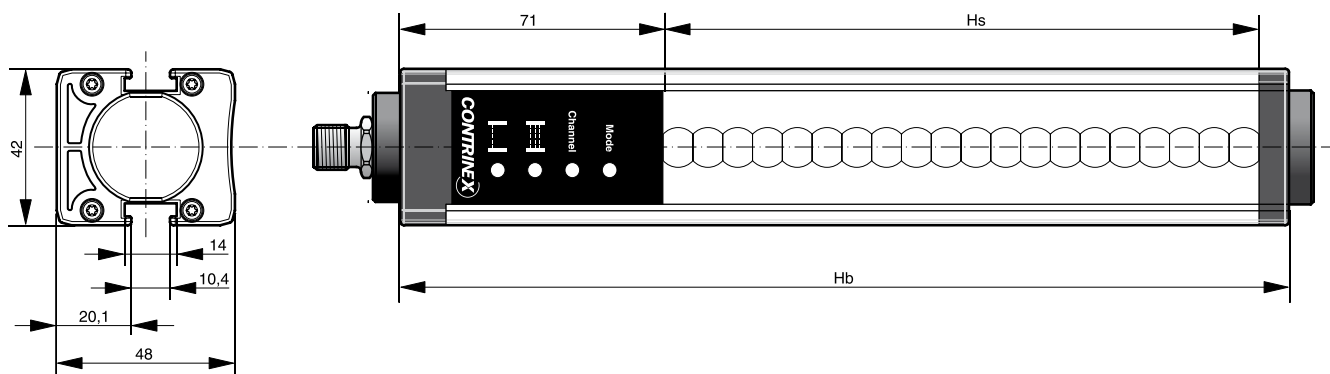
- Mode : yellow when test mode is active
- Channel : blue when channel 1 is selected  
purple when channel 2 is selected
- Alignment : steady orange when the screen is not fully aligned  
flashing orange when the first third of the screen is aligned  
off when screen is fully aligned
- Alignment : steady orange when the lowest beam is not aligned  
flashing orange when the lowest beam is aligned  
off when screen is fully aligned

LED indicators on the YBB **receiver** unit

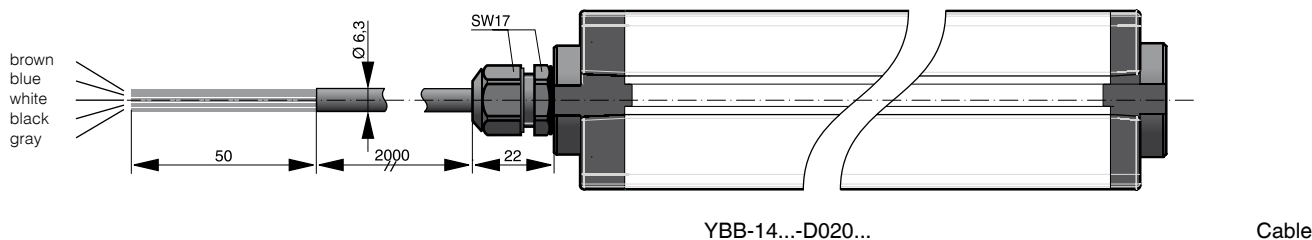
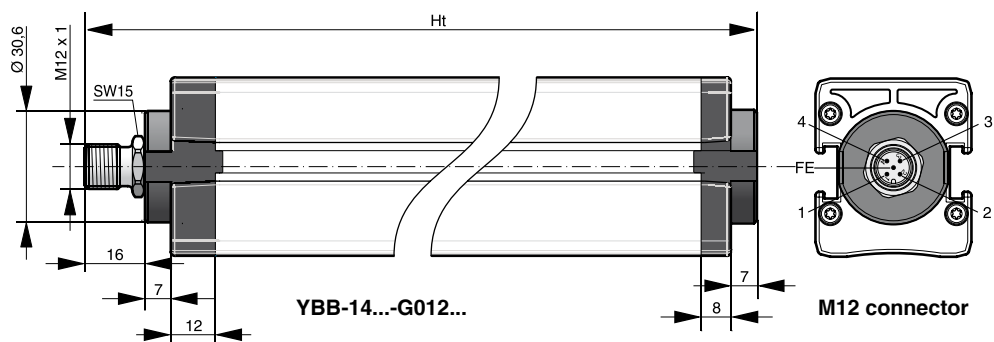


- Power : green when power is ON
- Channel : blue when channel 1 is selected  
purple when channel 2 is selected
- Status : green when OSSD outputs are ON
- Status : red when OSSD outputs are OFF

## DIMENSIONS



## PIN ASSIGNMENT



ASSIGNMENT	FUNCTION	PINS/WIRES ON SENDER		PINS/WIRES ON RECEIVER	
		M12 CONNECTOR	CABLE	M12 CONNECTOR	CABLE
Supply voltage	24 VDC for channel 1 / 0 V for channel 2	<b>1</b>	brown	<b>1</b>	brown
Supply voltage	0 V for channel 1 / 24 VDC for channel 2	<b>3</b>	blue	<b>3</b>	blue
Test mode	0 V: test active / 24 V: test inactive	<b>4</b>	black	-	-
Output	OSSD1	-	-	<b>2</b>	white
Output	OSSD2	-	-	<b>4</b>	black
Functional earth	Shield	<b>FE</b>	gray	<b>FE</b>	gray

[www.contrinex.com](http://www.contrinex.com)



**LIGHT CURTAINS  
FINGER PROTECTION (14 MM)  
AVAILABLE MODELS**



**TYPE-SPECIFIC DATA**

Type	0150	0250	0400
Total height (Ht) [mm] *	251	380	509
Housing height (Hb) [mm]	221	350	479
Protective height (Hs) [mm]	142	271	400
Number of beams	17	33	49
Current consumption [mA]	135	140	145
Response time [ms]	5.2	8.4	11.6

**PART REFERENCES (BOLD: PREFERRED TYPES)**

IP 65 & IP 67	PNP / Connector M12	Sender	<b>YBB-14S4-0150-G012</b>	<b>YBB-14S4-0250-G012</b>	<b>YBB-14S4-0400-G012</b>
		Receiver	<b>YBB-14R4-0150-G012</b>	<b>YBB-14R4-0250-G012</b>	<b>YBB-14R4-0400-G012</b>
	PNP / PUR-cable 2 m	Sender	YBB-14S4-0150-D020	YBB-14S4-0250-D020	YBB-14S4-0400-D020
		Receiver	YBB-14R4-0150-D020	YBB-14R4-0250-D020	YBB-14R4-0400-D020
	PNP / PUR-cable 5 m	Sender	YBB-14S4-0150-D050	YBB-14S4-0250-D050	YBB-14S4-0400-D050
		Receiver	YBB-14R4-0150-D050	YBB-14R4-0250-D050	YBB-14R4-0400-D050
	PNP / PUR-cable 10 m	Sender	YBB-14S4-0150-D100	YBB-14S4-0250-D100	YBB-14S4-0400-D100
		Receiver	YBB-14R4-0150-D100	YBB-14R4-0250-D100	YBB-14R4-0400-D100
IP 65, IP 67 & IP 69K	PNP / Connector M12	Sender	<b>YBB-14S4-0150-G012-69K</b>	<b>YBB-14S4-0250-G012-69K</b>	<b>YBB-14S4-0400-G012-69K</b>
		Receiver	<b>YBB-14R4-0150-G012-69K</b>	<b>YBB-14R4-0250-G012-69K</b>	<b>YBB-14R4-0400-G012-69K</b>
	PNP / PUR-cable 2 m	Sender	YBB-14S4-0150-D020-69K	YBB-14S4-0250-D020-69K	YBB-14S4-0400-D020-69K
		Receiver	YBB-14R4-0150-D020-69K	YBB-14R4-0250-D020-69K	YBB-14R4-0400-D020-69K
	PNP / PUR-cable 5 m	Sender	YBB-14S4-0150-D050-69K	YBB-14S4-0250-D050-69K	YBB-14S4-0400-D050-69K
		Receiver	YBB-14R4-0150-D050-69K	YBB-14R4-0250-D050-69K	YBB-14R4-0400-D050-69K
	PNP / PUR-cable 10 m	Sender	YBB-14S4-0150-D100-69K	YBB-14S4-0250-D100-69K	YBB-14S4-0400-D100-69K
		Receiver	YBB-14R4-0150-D100-69K	YBB-14R4-0250-D100-69K	YBB-14R4-0400-D100-69K

**TYPE-SPECIFIC DATA**

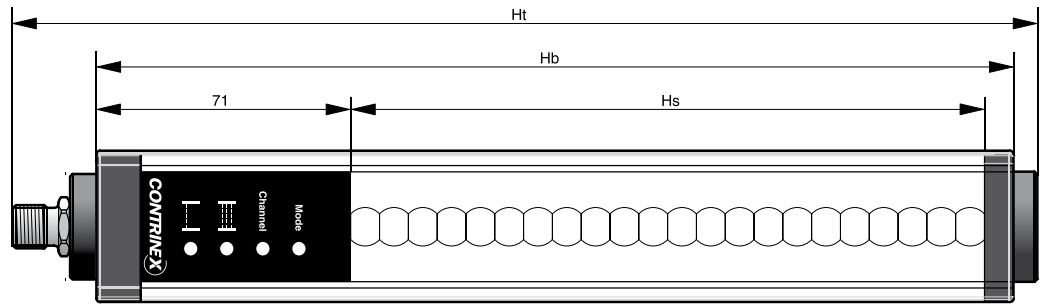
Type	1000	1200	1300
Total height (Ht) [mm] *	1154	1283	1412
Housing height (Hb) [mm]	1124	1253	1382
Protective height (Hs) [mm]	1045	1174	1303
Number of beams	129	145	161
Current consumption [mA]	175	185	190
Response time [ms]	27.6	30.8	34

**PART REFERENCES (BOLD: PREFERRED TYPES)**

IP 65 & IP 67	PNP / Connector M12	Sender	<b>YBB-14S4-1000-G012</b>	<b>YBB-14S4-1200-G012</b>	<b>YBB-14S4-1300-G012</b>
		Receiver	<b>YBB-14R4-1000-G012</b>	<b>YBB-14R4-1200-G012</b>	<b>YBB-14R4-1300-G012</b>
	PNP / PUR-cable 2 m	Sender	YBB-14S4-1000-D020	YBB-14S4-1200-D020	YBB-14S4-1300-D020
		Receiver	YBB-14R4-1000-D020	YBB-14R4-1200-D020	YBB-14R4-1300-D020
	PNP / PUR-cable 5 m	Sender	YBB-14S4-1000-D050	YBB-14S4-1200-D050	YBB-14S4-1300-D050
		Receiver	YBB-14R4-1000-D050	YBB-14R4-1200-D050	YBB-14R4-1300-D050
	PNP / PUR-cable 10 m	Sender	YBB-14S4-1000-D100	YBB-14S4-1200-D100	YBB-14S4-1300-D100
		Receiver	YBB-14R4-1000-D100	YBB-14R4-1200-D100	YBB-14R4-1300-D100
IP 65, IP 67 & IP 69K	PNP / Connector M12	Sender	<b>YBB-14S4-1000-G012-69K</b>	<b>YBB-14S4-1200-G012-69K</b>	<b>YBB-14S4-1300-G012-69K</b>
		Receiver	<b>YBB-14R4-1000-G012-69K</b>	<b>YBB-14R4-1200-G012-69K</b>	<b>YBB-14R4-1300-G012-69K</b>
	PNP / PUR-cable 2 m	Sender	YBB-14S4-1000-D020-69K	YBB-14S4-1200-D020-69K	YBB-14S4-1300-D020-69K
		Receiver	YBB-14R4-1000-D020-69K	YBB-14R4-1200-D020-69K	YBB-14R4-1300-D020-69K
	PNP / PUR-cable 5 m	Sender	YBB-14S4-1000-D050-69K	YBB-14S4-1200-D050-69K	YBB-14S4-1300-D050-69K
		Receiver	YBB-14R4-1000-D050-69K	YBB-14R4-1200-D050-69K	YBB-14R4-1300-D050-69K
	PNP / PUR-cable 10 m	Sender	YBB-14S4-1000-D100-69K	YBB-14S4-1200-D100-69K	YBB-14S4-1300-D100-69K
		Receiver	YBB-14R4-1000-D100-69K	YBB-14R4-1200-D100-69K	YBB-14R4-1300-D100-69K

\* Total height given with M12 connector. For cable version, add 6 mm.

Detailed data sheets for these products can be found on the CONTRINEX website:



0500	0700	0800	0900
638	767	896	1025
608	737	866	995
529	658	787	916
65	81	97	113
150	160	165	170
14.8	18	21.2	24.4

<b>YBB-14S4-0500-G012</b>	<b>YBB-14S4-0700-G012</b>	<b>YBB-14S4-0800-G012</b>	<b>YBB-14S4-0900-G012</b>
<b>YBB-14R4-0500-G012</b>	<b>YBB-14R4-0700-G012</b>	<b>YBB-14R4-0800-G012</b>	<b>YBB-14R4-0900-G012</b>
YBB-14S4-0500-D020	YBB-14S4-0700-D020	YBB-14S4-0800-D020	YBB-14S4-0900-D020
YBB-14R4-0500-D020	YBB-14R4-0700-D020	YBB-14R4-0800-D020	YBB-14R4-0900-D020
YBB-14S4-0500-D050	YBB-14S4-0700-D050	YBB-14S4-0800-D050	YBB-14S4-0900-D050
YBB-14R4-0500-D050	YBB-14R4-0700-D050	YBB-14R4-0800-D050	YBB-14R4-0900-D050
YBB-14S4-0500-D100	YBB-14S4-0700-D100	YBB-14S4-0800-D100	YBB-14S4-0900-D100
YBB-14R4-0500-D100	YBB-14R4-0700-D100	YBB-14R4-0800-D100	YBB-14R4-0900-D100
<b>YBB-14S4-0500-G012-69K</b>	<b>YBB-14S4-0700-G012-69K</b>	<b>YBB-14S4-0800-G012-69K</b>	<b>YBB-14S4-0900-G012-69K</b>
<b>YBB-14R4-0500-G012-69K</b>	<b>YBB-14R4-0700-G012-69K</b>	<b>YBB-14R4-0800-G012-69K</b>	<b>YBB-14R4-0900-G012-69K</b>
YBB-14S4-0500-D020-69K	YBB-14S4-0700-D020-69K	YBB-14S4-0800-D020-69K	YBB-14S4-0900-D020-69K
YBB-14R4-0500-D020-69K	YBB-14R4-0700-D020-69K	YBB-14R4-0800-D020-69K	YBB-14R4-0900-D020-69K
YBB-14S4-0500-D050-69K	YBB-14S4-0700-D050-69K	YBB-14S4-0800-D050-69K	YBB-14S4-0900-D050-69K
YBB-14R4-0500-D050-69K	YBB-14R4-0700-D050-69K	YBB-14R4-0800-D050-69K	YBB-14R4-0900-D050-69K
YBB-14S4-0500-D100-69K	YBB-14S4-0700-D100-69K	YBB-14S4-0800-D100-69K	YBB-14S4-0900-D100-69K
YBB-14R4-0500-D100-69K	YBB-14R4-0700-D100-69K	YBB-14R4-0800-D100-69K	YBB-14R4-0900-D100-69K

1400	1600	1700
1541	1670	1799
1511	1640	1769
1432	1561	1690
177	193	209
195	200	210
37.2	40.4	43.6



<b>YBB-14S4-1400-G012</b>	<b>YBB-14S4-1600-G012</b>	<b>YBB-14S4-1700-G012</b>
<b>YBB-14R4-1400-G012</b>	<b>YBB-14R4-1600-G012</b>	<b>YBB-14R4-1700-G012</b>
YBB-14S4-1400-D020	YBB-14S4-1600-D020	YBB-14S4-1700-D020
YBB-14R4-1400-D020	YBB-14R4-1600-D020	YBB-14R4-1700-D020
YBB-14S4-1400-D050	YBB-14S4-1600-D050	YBB-14S4-1700-D050
YBB-14R4-1400-D050	YBB-14R4-1600-D050	YBB-14R4-1700-D050
YBB-14S4-1400-D100	YBB-14S4-1600-D100	YBB-14S4-1700-D100
YBB-14R4-1400-D100	YBB-14R4-1600-D100	YBB-14R4-1700-D100
<b>YBB-14S4-1400-G012-69K</b>	<b>YBB-14S4-1600-G012-69K</b>	<b>YBB-14S4-1700-G012-69K</b>
<b>YBB-14R4-1400-G012-69K</b>	<b>YBB-14R4-1600-G012-69K</b>	<b>YBB-14R4-1700-G012-69K</b>
YBB-14S4-1400-D020-69K	YBB-14S4-1600-D020-69K	YBB-14S4-1700-D020-69K
YBB-14R4-1400-D020-69K	YBB-14R4-1600-D020-69K	YBB-14R4-1700-D020-69K
YBB-14S4-1400-D050-69K	YBB-14S4-1600-D050-69K	YBB-14S4-1700-D050-69K
YBB-14R4-1400-D050-69K	YBB-14R4-1600-D050-69K	YBB-14R4-1700-D050-69K
YBB-14S4-1400-D100-69K	YBB-14S4-1600-D100-69K	YBB-14S4-1700-D100-69K
YBB-14R4-1400-D100-69K	YBB-14R4-1600-D100-69K	YBB-14R4-1700-D100-69K



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