

SAFETY LIGHT CURTAIN

YBB-30 □ 2-0150-G012



RESOLUTION 30 MM

TYPE 2 / PL c

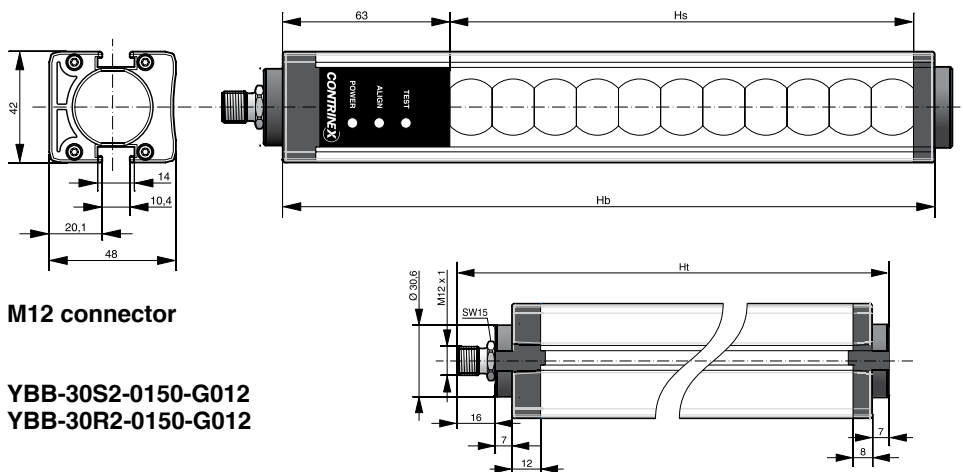
OUTSTANDING FEATURES

- Protective height: 150 mm
- Operating range: 0.25 ... 12 m
- Category 2, PL c according to EN/ISO 13849-1
- Type 2 according to IEC 61496-1/2
- Optically synchronized units
- Permanent autocontrol

TECHNICAL DATA (at +23°C ± 5°C, 24 VDC)

Resolution	30 mm
Beam axis interval	16 mm
Effective aperture angle	< ± 2.5° (when operating distance ≥ 3 m)
Operating range	0.25 ... 12 m
Dimensions	42 mm x 48 mm x Ht (total height with M12 connector)
Total height (Ht)	251 mm
Housing height (Hb)	221 mm
Protective height (Hs)	150 mm
Number of beams	9
Response time	14 ms
Supply voltage range	24 VDC ± 20 %
Current consumption	sender: 20 mA max. / receiver: 50 mA max. (excl. load)
Dissipated power	sender: 0.6 W max. / receiver: 1.5 W max. (excl. load)
Output type	2 PNP outputs
Output protection	short-circuit, overload protected
Output monitoring	cross-circuit monitored
Load current	max. 200 mA per output (at 50 °C / 122 °F)
Output voltage ON min.	-1.0 V of the operating voltage
Output voltage OFF max.	1.0 V
Output monitoring frequency	10 Hz
Leakage current when OFF state	< 1 mA
Maximum load inductance	100 mH
Sender wavelength	IR 850 nm
Safety level	Category 2, Type 2 (IEC 61496-1/2) PL c MTTF _d = 78 years, DC _{avg} = 91% (EN/ISO 13849-1) SIL 1 (IEC 61508) pending
Electrical protection class	III (IEC 61140)
Startup delay	< 0.5 s
Vibration resistance	10 to 55 Hz, 0.35 mm amplitude, 1 octave/min., 20 sweeps for each axis
Shock resistance	10 g during 16 ms, 1000 times for each axis
Light immunity	incandescent lamp: 3000 lx max. (light intensity on receiver surface) xenon flash tube: flash duration 1.2 ms max. with a frequency of 2 Hz max. (TS 61496-2)
Ambient temperature range	0 ... +50°C (+32 ... +122°F)
Storage temperature range	-25 ... +70°C (-13 ... +158°F)
Air humidity	15 ... 95 % (non-condensing)
Degree of protection	IP 65 + IP 67 (EN 60529/A1)
Housing material	aluminum profile, PMMA front screen
Material of upper and lower cover	PA + 30% fiberglass
Cable runs	10 m max. (at 10 nF capacitive load)
Weight	sender: 520 g / receiver: 520 g
Reference standards:	safety IEC 61496-1, IEC 61496-2, EN 60204-1, EN 50178
	environment EN 60068-2-1,2,3,6,29
	EMC EN 61000-4-2,3,4,5,6,11
	radio disturbance EN 55011/A2

DIMENSIONS



M12 connector

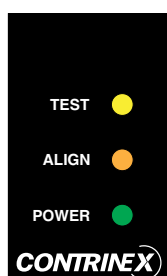
YBB-30S2-0150-G012
YBB-30R2-0150-G012

PART REFERENCE

Output type	Sender	Receiver
PNP / M12 connector	YBB-30S2-0150-G012	YBB-30R2-0150-G012

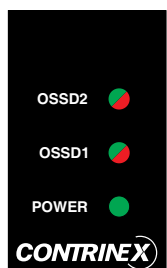
LED INDICATORS

LED indicators on the YBB **sender** unit



- Power : **green** when power is ON
- Alignment : **steady orange** when the lowest beam is not aligned
quick blinking orange when the lowest beam is aligned
slow blinking orange when at least 6 beams are aligned
off when screen is fully aligned
- Test : **yellow** when intrusion simulation is active
off when there is no intrusion simulation

LED indicators on the YBB **receiver** unit



- Power : **green** when power is ON
- OSSD1 : **green** when OSSD1 is ON
red when OSSD1 is OFF
- OSSD2 : **green** when OSSD2 is ON
red when OSSD2 is OFF

PIN ASSIGNMENT

ASSIGNMENT	FUNCTION	PINS ON SENDER		PINS ON RECEIVER	
		M12	M12	M12	M12
Power supply	24 VDC	1	1	1	1
Power supply	0 V	3	3	3	3
Test mode	0 V: test active 24 V: test inactive	4	-	-	-
Output	OSSD1	-	-	-	2
Output	OSSD2	-	-	-	4
Functional earth	Shield	FE	FE	FE	FE

M12 connector