

CONTRINEX

DATA SHEET

SAFETY LIGHT CURTAIN**YBB-30□2-□□□□-G012**
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**RESOLUTION 30 MM****TYPE 2 / PL c****OUTSTANDING FEATURES**

- Protective height: 150 mm ... 1827 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 |
| Housing size | 42 mm x 48 mm x Ht |
| Total height (Ht) | see type-specific data (page 2) |
| Housing height (Hb) | see type-specific data (page 2) |
| Protective height (Hs) | see type-specific data (page 2) |
| Number of beams | see type-specific data (page 2) |
| Response time | see type-specific data (page 2) |
| Supply voltage | 24 VDC ± 20 % |
| Current consumption | see type-specific data (page 2) |
| Dissipated power | see type-specific data (page 2) |
| Polarity | 2 PNP outputs |
| Output protection | short-circuit, overload protected |
| Output monitoring | cross-circuit monitored |
| Output 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, SIL 1 (IEC 61508) pending (see also type-specific data on page 2) |
| 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. (IEC 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) |
| Enclosure rating | IP65 + IP67 (EN 60529/A1) |
| Housing material | aluminum profile, PMMA front screen |
| Material of upper and lower cover | PA + 30% fiberglass |
| Cable runs | 100 m max. (at 10 nF capacitive load) |
| Weight | see type-specific data (page 2) |
| 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 |

TYPE-SPECIFIC DATA

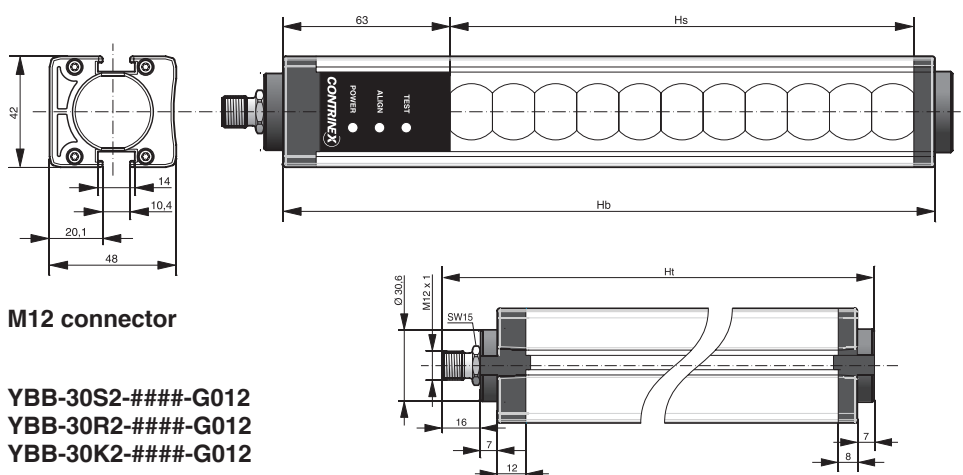
BEAM RESOLUTION: 30 MM

| Part reference | Protective Height Hs [mm] | Housing Height Hb [mm] | Total Height Ht [mm] | Number of Beams | Current Consumption [mA max.]* | Response Time [ms] | MTTFa [years] | DCavg | Dissipated power [W max.]* | Weight [g] |
|--------------------|---------------------------|------------------------|----------------------|-----------------|--------------------------------|--------------------|---------------|-------|----------------------------|------------|
| YBB-30x2-0150-G012 | 150 | 221 | 251 | 9 | 20 (S)/50 (R) | 14 | 78 | 91% | 0.6 (S)/1.5 (R) | 520 |
| YBB-30x2-0250-G012 | 279 | 350 | 380 | 17 | 22 (S)/52 (R) | 18 | 65 | 92% | 0.7 (S)/1.5 (R) | 805 |
| YBB-30x2-0400-G012 | 408 | 479 | 509 | 25 | 23 (S)/54 (R) | 22 | 55 | 93% | 0.7 (S)/1.6 (R) | 1090 |
| YBB-30x2-0500-G012 | 537 | 608 | 638 | 33 | 24 (S)/55 (R) | 26 | 48 | 94% | 0.7 (S)/1.6 (R) | 1370 |
| YBB-30x2-0700-G012 | 666 | 737 | 767 | 41 | 25 (S)/55 (R) | 30 | 42 | 94% | 0.8 (S)/1.6 (R) | 1660 |
| YBB-30x2-0800-G012 | 795 | 866 | 896 | 49 | 25 (S)/56 (R) | 34 | 38 | 95% | 0.8 (S)/1.6 (R) | 1945 |
| YBB-30x2-0900-G012 | 924 | 995 | 1025 | 57 | 25 (S)/56 (R) | 38 | 34 | 95% | 0.8 (S)/1.6 (R) | 2230 |
| YBB-30x2-1000-G012 | 1053 | 1124 | 1154 | 65 | 25 (S)/56 (R) | 42 | 32 | 95% | 0.8 (S)/1.6 (R) | 2515 |
| YBB-30x2-1200-G012 | 1182 | 1253 | 1283 | 73 | 26 (S)/57 (R) | 46 | 29 | 96% | 0.8 (S)/1.7 (R) | 2800 |
| YBB-30x2-1300-G012 | 1311 | 1382 | 1412 | 81 | 26 (S)/57 (R) | 50 | 27 | 96% | 0.8 (S)/1.7 (R) | 3085 |
| YBB-30x2-1400-G012 | 1440 | 1511 | 1541 | 89 | 27 (S)/57 (R) | 54 | 25 | 96% | 0.8 (S)/1.7 (R) | 3370 |
| YBB-30x2-1600-G012 | 1569 | 1640 | 1670 | 97 | 27 (S)/57 (R) | 58 | 23 | 96% | 0.8 (S)/1.7 (R) | 3655 |
| YBB-30x2-1700-G012 | 1698 | 1769 | 1799 | 105 | 27 (S)/58 (R) | 62 | 22 | 96% | 0.8 (S)/1.7 (R) | 3940 |
| YBB-30x2-1800-G012 | 1827 | 1898 | 1928 | 113 | 27 (S)/58 (R) | 66 | 21 | 97% | 0.8 (S)/1.7 (R) | 4225 |

x = S for sender / R for receiver / K for kit (sender + receiver)

* Excl. load

HOUSING SIZE



M12 connector

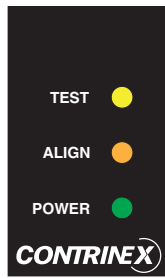
YBB-30S2-####-G012
YBB-30R2-####-G012
YBB-30K2-####-G012

PART REFERENCE

| Output type | Sender | Receiver | Kit (Sender + Receiver) |
|---------------------|--------------------|--------------------|-------------------------|
| PNP / Connector M12 | YBB-30S2-0150-G012 | YBB-30R2-0150-G012 | YBB-30K2-0150-G012 |
| PNP / Connector M12 | YBB-30S2-0250-G012 | YBB-30R2-0250-G012 | YBB-30K2-0250-G012 |
| PNP / Connector M12 | YBB-30S2-0400-G012 | YBB-30R2-0400-G012 | YBB-30K2-0400-G012 |
| PNP / Connector M12 | YBB-30S2-0500-G012 | YBB-30R2-0500-G012 | YBB-30K2-0500-G012 |
| PNP / Connector M12 | YBB-30S2-0700-G012 | YBB-30R2-0700-G012 | YBB-30K2-0700-G012 |
| PNP / Connector M12 | YBB-30S2-0800-G012 | YBB-30R2-0800-G012 | YBB-30K2-0800-G012 |
| PNP / Connector M12 | YBB-30S2-0900-G012 | YBB-30R2-0900-G012 | YBB-30K2-0900-G012 |
| PNP / Connector M12 | YBB-30S2-1000-G012 | YBB-30R2-1000-G012 | YBB-30K2-1000-G012 |
| PNP / Connector M12 | YBB-30S2-1200-G012 | YBB-30R2-1200-G012 | YBB-30K2-1200-G012 |
| PNP / Connector M12 | YBB-30S2-1300-G012 | YBB-30R2-1300-G012 | YBB-30K2-1300-G012 |
| PNP / Connector M12 | YBB-30S2-1400-G012 | YBB-30R2-1400-G012 | YBB-30K2-1400-G012 |
| PNP / Connector M12 | YBB-30S2-1600-G012 | YBB-30R2-1600-G012 | YBB-30K2-1600-G012 |
| PNP / Connector M12 | YBB-30S2-1700-G012 | YBB-30R2-1700-G012 | YBB-30K2-1700-G012 |
| PNP / Connector M12 | YBB-30S2-1800-G012 | YBB-30R2-1800-G012 | YBB-30K2-1800-G012 |

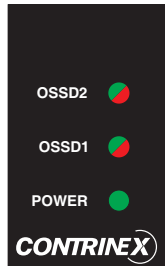
LED INDICATORS

LED indicators on the YBB **sender** unit



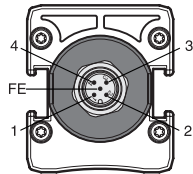
Power : **green** when power is ON
Alignment : **steady orange** when the lowest beam is not aligned
quick blinking orange when the lowest beam is aligned
slow blinking orange when at least 6 beams are aligned
OFF when screen is fully aligned
Test : **yellow** when intrusion simulation is active
OFF 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



M12 connector

| ASSIGNMENT | FUNCTION | PINS/WIRES ON SENDER | | PINS/WIRES ON RECEIVER | |
|------------------|---|----------------------|------------|------------------------|------------|
| | | M12 | OPEN CABLE | M12 | OPEN CABLE |
| Power supply | 24 VDC | 1 | brown | 1 | brown |
| Power supply | 0 V | 3 | blue | 3 | blue |
| Test mode | 0 V: test active 24 V: test inactive | 4 | black | - | - |
| Output | OSSD1 | - | - | 2 | white |
| Output | OSSD2 | - | - | 4 | black |
| Functional earth | Shield | FE | gray | FE | gray |

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