

Through-beam sensors, in a small plastic housing



- Light reserve warning indicator
- Dual transistor outputs, NPN or PNP
- 1000 Hz switching frequency
- Short-circuit protection, reverse polarity protection and power-up output suppression
- Test input
- Connections: Cable, 2 meter
Connector, M12
Connector, M8 (option)
Connector, Torson (option)
- EMC tested according to IEC 801 and EN50081-1/EN 50082-2



| | Emitter | | Receiver | | | |
|---|------------------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------|
| | OPS 1KA 141 I1 | OPS 1KA 441 I1 | OPE 1NA 100 I1 | OPE 1NA 400 I1 | OPE 1PA 100 I1 | OPE 1PA 400 I1 |
| Output | | | NPN (light- and dark-on) | | PNP (light- and dark-on) | |
| Connection | Cable 2 m | Connector M12 | Cable 2 m | Connector M12 | Cable 2 m | Connector M12 |
| Range adjustment | No | | Yes | | | |
| Optical data ²⁾ | | | | | | |
| Max. range | 12 m | | | | | |
| Emitter | Infrared-LED, 880 nm, pulsed | | | | | |
| Electrical data ²⁾ | | | | | | |
| Supply voltage U _s | 10...30 VDC | | | | | |
| Allowable ripple | +/- 10% of U _s | | | | | |
| Current consumption (without load) | < 25 mA | | < 15 mA | | | |
| Max. load current I _L | | | 200 mA | | | |
| Residual voltage | | | < 1,6 V | | | |
| Max. switching frequency | | | 1000 Hz | | | |
| Test input: emitter on emitter off | | | > 8 V or open < 1,5 V | | | |
| Test input inverse: emitter on emitter off | | | open or < 1,5 V > 8 V | | | |
| Environmental data | | | | | | |
| Sealing | IP 65 | | | | | |
| Temperature T _A (operating and storage) | -25...+65 °C | | | | | |
| Weight | ca. 100 g | ca. 35 g | ca. 100 g | ca. 35 g | ca. 100 g | ca. 35 g |

1) For product designation of sensors with options see designation code on page 81.
2) When not otherwise noted, all technical data at T_A = 25 °C and U_s = 24 V.

10...30 VDC

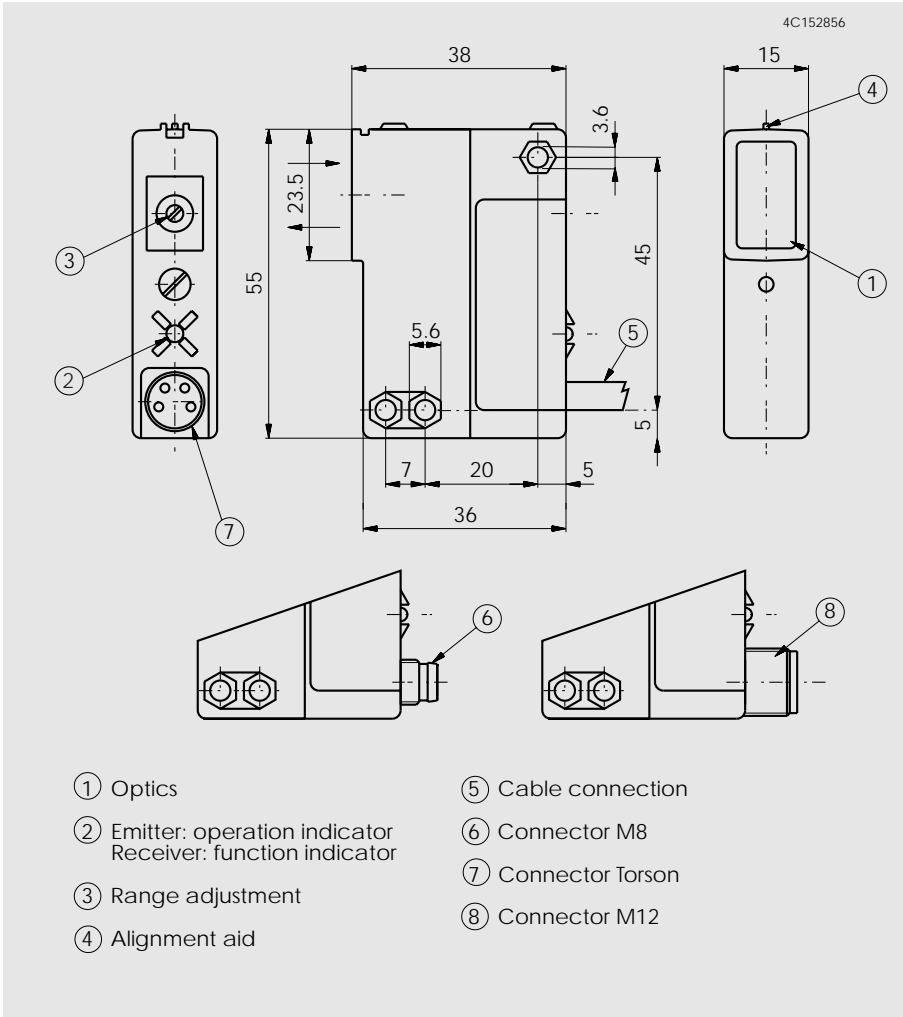
NPN / PNP
light-on and
dark-on output



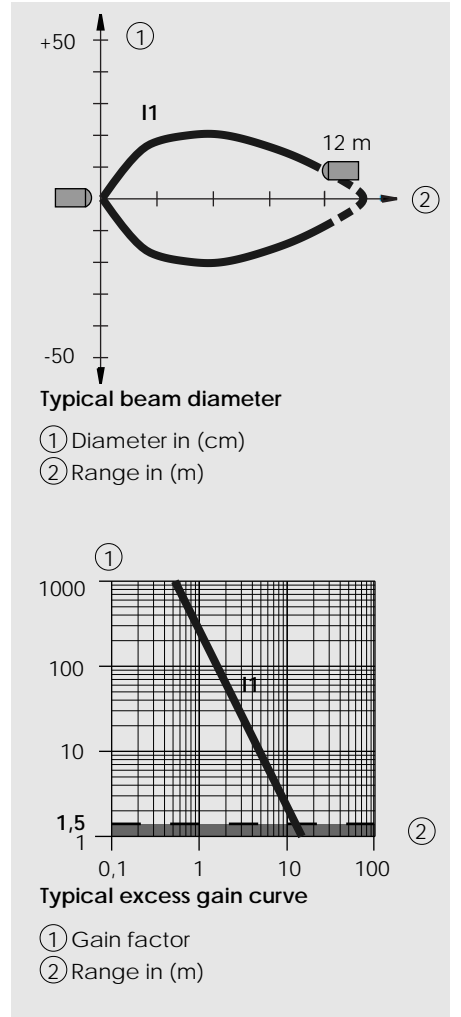
12 m

OPS/OPE

Dimensions (55 mm x 38 mm x 15 mm)



Optical diagrams



Wiring diagram

