



SSmall

Complete line of amplified subminiature photoelectric sensors

- 15mm, 20mm, 30mm and 50mm fixed focus proximity
- 1,5m retroflective and 1m polarized retroflective
- 2m through beam models
- Amplified NPN or PNP output with NO-NC output



SENSORS

APPLICATIONS

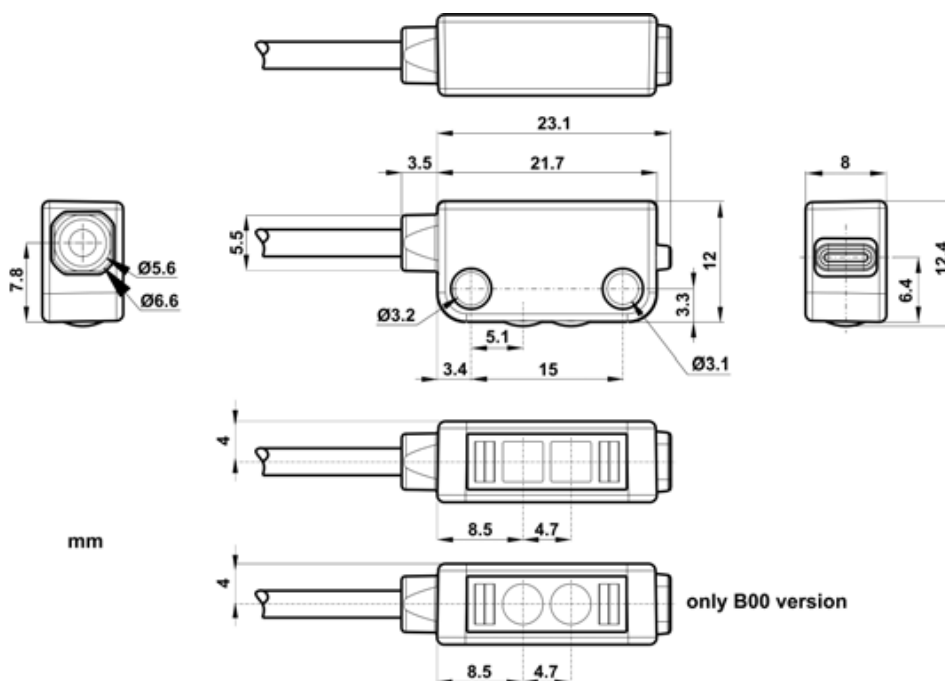
- Processing and Packaging machinery
- Automotive
- Beverage & Bottling
- Vending machines



| SM-all | | |
|---------------------------------|-----------|---------------|
| Through beam | | 0...2 m |
| Retroflective (on R2 reflector) | | 0,05...1,5 m |
| Polarized retroflective | | 0,1...1 m |
| Fixed focus | | 3...15 mm |
| | | 3...20 mm |
| | | 3...30 mm |
| | | 3...50 mm |
| Power supply | Vdc | 10...30 V |
| | Vac | |
| | Vac/dc | |
| Output | PNP | ▪ |
| | NPN | ▪ |
| | NPN/PNP | |
| | relay | |
| | other | |
| Connection | cable | ▪ |
| | connector | |
| | pig-tail | |
| Approximate dimensions (mm) | | 8x23x12 |
| Housing material | | Polycarbonate |
| Mechanical protection | | IP67 |

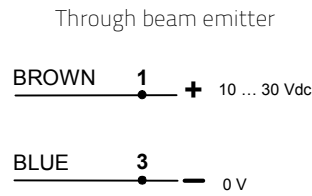
| TECHNICAL DATA | |
|---------------------------------------|--|
| Power supply | 10 ... 30 Vdc (limit values) |
| Ripple | 10% max. |
| Consumption (output current excluded) | 20 mA max. |
| Light emission | red LED 640 nm |
| Operating mode | LIGHT mode on N.O. output/DARK mode on N.C. output |
| Indicators | yellow OUTPUT LED excl. mod. G00 green POWER LED |
| Output | PNP or NPN; NO; NC |
| Output current | 50 mA max. |
| Saturation voltage | 1,25 V max. (NPN), 1,45 V max. (PNP) |
| Response time | 700 μ s 1,3 ms (mod. SM...F00/G00) |
| Switching frequency | 700 Hz 385 Hz (mod. SM...F00/G00) |
| Connection | 2 m cable \varnothing 2,5 mm |
| Dielectric strength | 500 Vac, 1 min between electronics and housing |
| Insulating resistance | >20 M Ω , 500 Vdc between electronics and housing |
| Electrical protection | class 2 |
| Mechanical protection | IP67 |
| Ambient light rejection | according to EN 60947-5-2 |
| Vibrations | 0,5 mm amplitude, 10 ... 55 Hz frequency, for every axis (EN60068-2-6) |
| Shock resistance | 11 ms (30 G) 6 shock for every axis (EN60068-2-27) |
| Housing material | Polycarbonate |
| Lens material | PMMA, glass (mod. B00) |
| Operating temperature | -20 ... 55 $^{\circ}$ C |
| Storage temperature | -30 ... 75 $^{\circ}$ C |
| Weight | 22 g |

DIMENSIONS

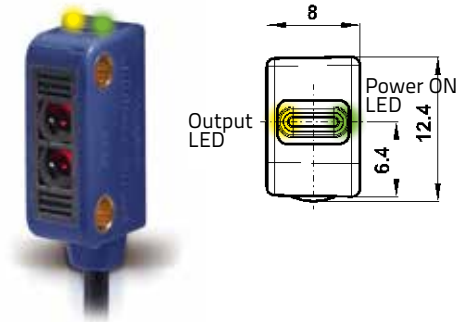


CONNECTIONS

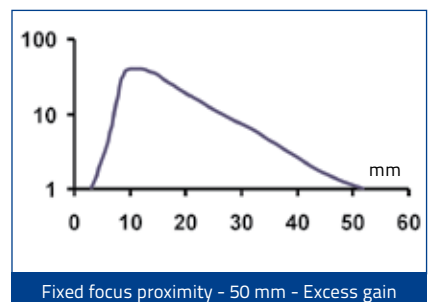
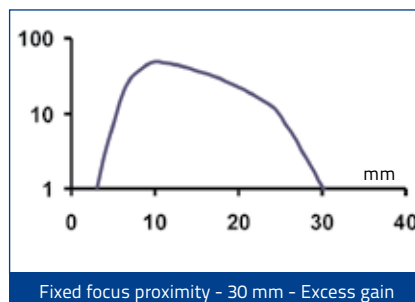
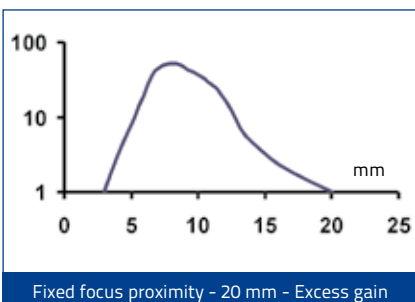
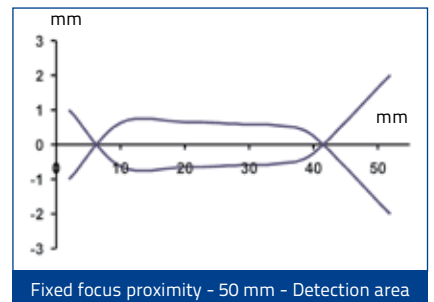
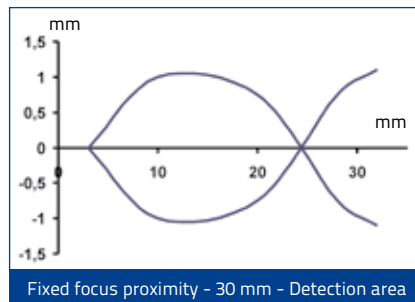
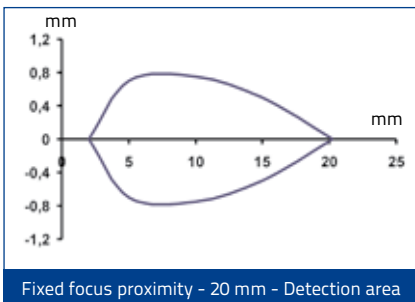
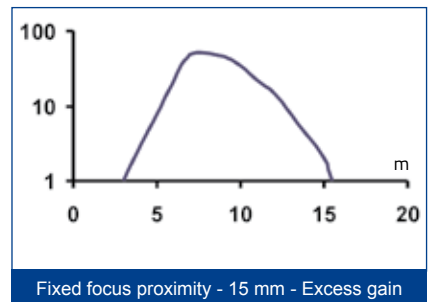
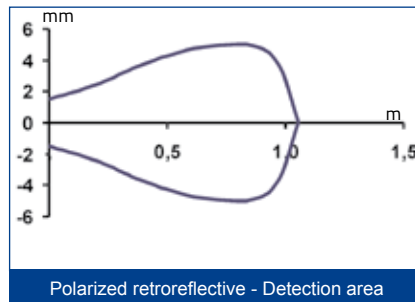
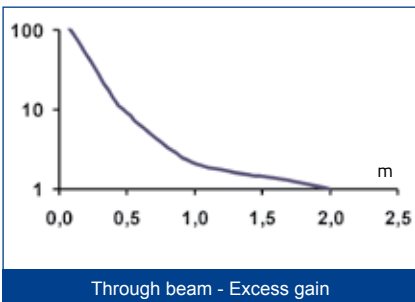
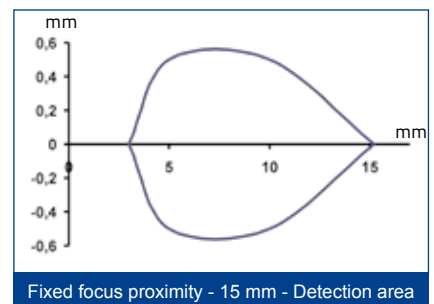
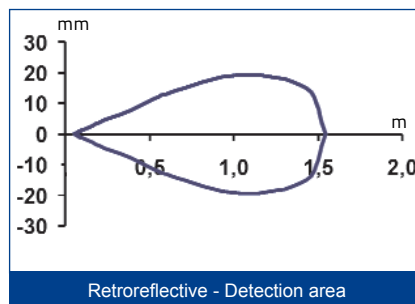
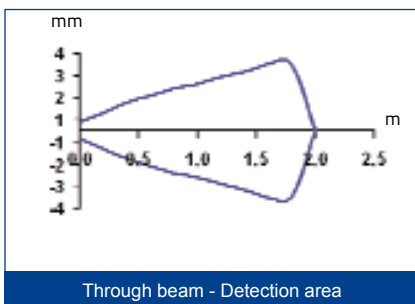
CABLE



INDICATORS AND SETTINGS



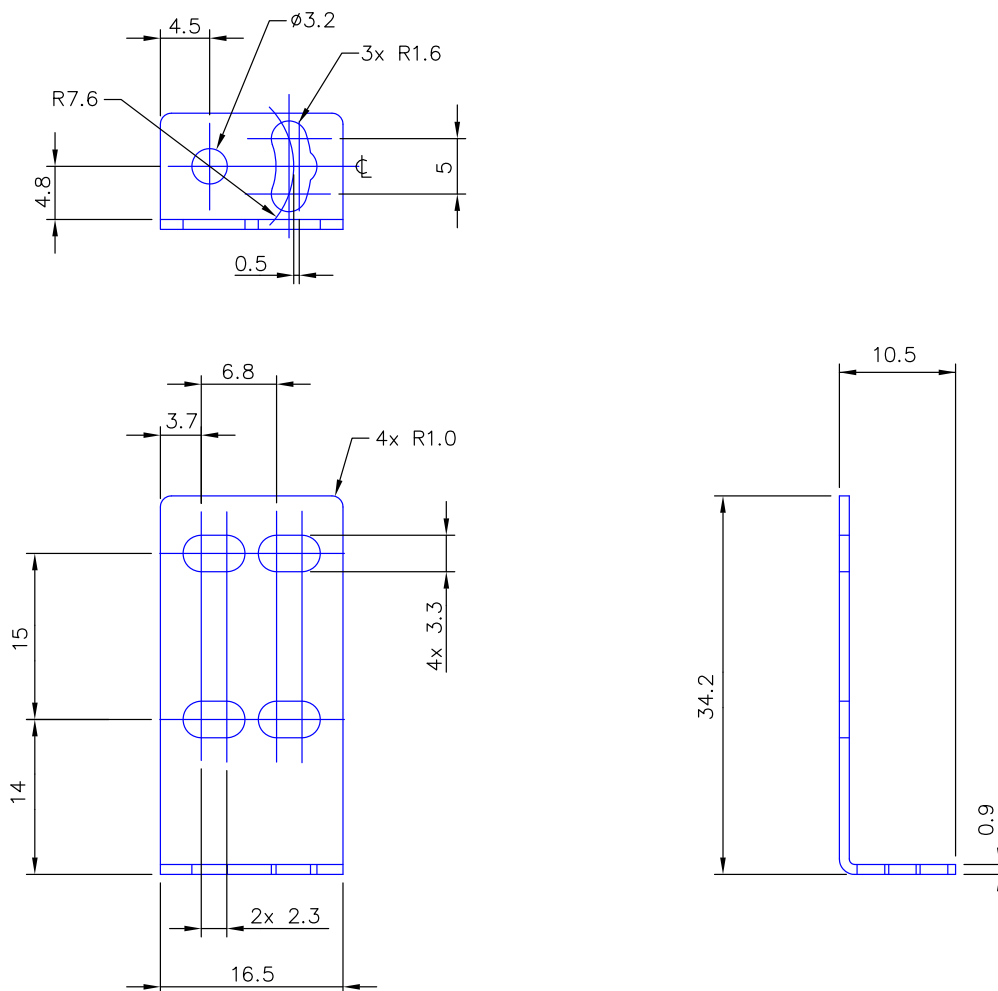
DETECTION DIAGRAMS



MODEL SELECTION AND ORDER INFORMATION

| OPTIC FUNCTION | OPERATING DISTANCE | CONNECTION | OUTPUT | MODEL | ORDER No. | |
|-------------------------------|--------------------|------------|----------|----------------|----------------|-----------|
| Retroreflective | 0,05...1,5 m | 2m Cable | PNP | SM-PR-2-A00-PP | 95B000060 | |
| | | | NPN | SM-PR-2-A00-NN | 95B000070 | |
| Polarized retroreflective | 0,1...1 m | 2m Cable | PNP | SM-PR-2-B00-PP | 95B000080 | |
| | | | NPN | SM-PR-2-B00-NN | 95B000090 | |
| Fixed focus (short distance) | 15 mm | 2m Cable | PNP | SM-PR-2-D00-PP | 95B000020 | |
| | | | NPN | SM-PR-2-D00-NN | 95B000030 | |
| Fixed focus (normal distance) | 20 mm | | PNP | SM-PR-2-D10-PP | 95B000140 | |
| | | | NPN | SM-PR-2-D10-NN | 95B000150 | |
| Fixed focus (medium distance) | 30 mm | | PNP | SM-PR-2-D20-PP | 95B000040 | |
| | | | NPN | SM-PR-2-D20-NN | 95B000050 | |
| Fixed focus (long distance) | 50 mm | | PNP | SM-PR-2-D30-PP | 95B000000 | |
| | | | NPN | SM-PR-2-D30-NN | 95B000010 | |
| Through beam receiver | 0...2 m | | 2m Cable | PNP | SM-PR-2-F00-PP | 95B000120 |
| | | | | NPN | SM-PR-2-F00-NN | 95B000130 |
| | | - | | SM-PR-2-G00-XG | 95B000160 | |

ACCESSORIES



| MODEL | DESCRIPTION | ORDER NO. |
|---------|---------------------|-----------|
| ST-5049 | right angle bracket | 95ACC6650 |