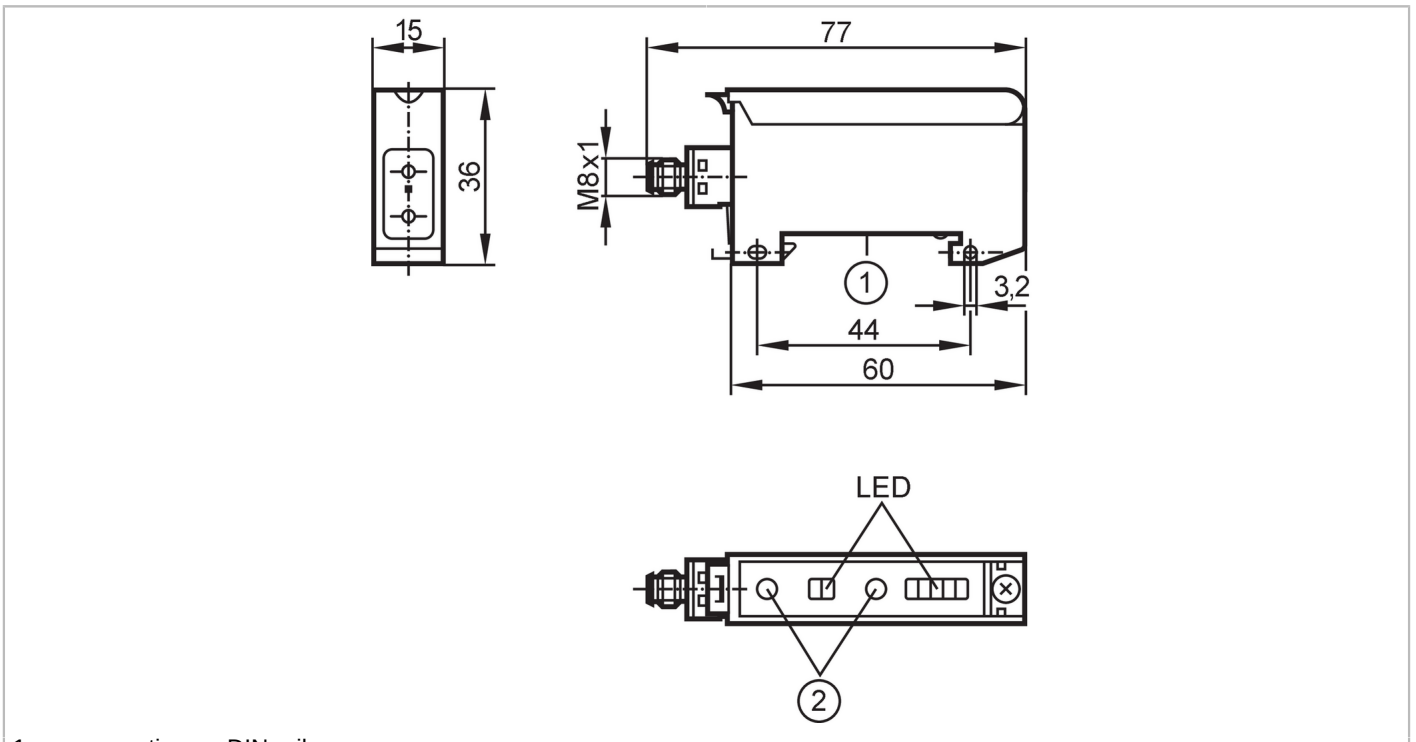
# OBF503

## Fibre-optic amplifier

OBF-FAKG/T/AS




1 mounting on DIN rail
2 setting pushbuttons

| | | |
|---|---|---|
| **Product characteristics** | | |
| Type of light | | red light |
| Housing | | rectangular |
| **Application** | | |
| Design | | Fibre-optic amplifiers for acrylic fibre optics |
| Application | | High switching frequency for fast processes |
| **Electrical data** | | |
| Operating voltage | [V] | 10...30 DC |
| Current consumption | [mA] | < 50 |
| Protection class | | III |
| Reverse polarity protection | | yes |
| Type of light | | red light |
| Wave length | [nm] | 630 |
| **Outputs** | | |
| Electrical design | | PNP/NPN; (automatic load detection PNP/NPN) |
| Output function | | light-on/dark-on mode; (programmable) |
| Max. voltage drop switching output DC | [V] | 2.5 |
| Permanent current rating of switching output DC | [mA] | 100 |
| Switching frequency DC | [Hz] | 3000 |
| Short-circuit protection | | yes |

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| | | | |
|---|---|---|---|
| Type of short-circuit protection | | | pulsed |
| Overload protection | | | yes |
| Time function | [s] | | 0.001...0.09 |
| **Detection zone** | | | |
| Range | [m] | | 0...2;  (Through-beam sensor) |
| Range | [mm] | | 0...100;  (Diffuse reflection sensor) |
| Range adjustable | | | yes |
| **Operating conditions** | | | |
| Ambient temperature | [°C] | | -25...60 |
| Protection | | | IP 65 |
| **Tests / approvals** | | | |
| EMC | | EN 60947-5-2 | |
| MTTF | [years] | | 837 |
| **Mechanical data** | | | |
| Weight | [g] | | 48 |
| Housing | | | rectangular |
| Type of mounting | | | mounting on DIN rail;  (TH35 (EN 60715)) |
| Dimensions | [mm] | | 36 x 15 x 60 |
| Number of channels | | | 1 |
| Materials | | | housing: PPE modified |
| **Displays / operating elements** | | | |
| Display | | switching status | 1 x LED, yellow |
| | | operation | 1 x LED, green |
| | | unsafe zone | 1 x LED, red |
| | | excess gain | 4 x LED, green |
| **Remarks** | | | |
| Remarks | | | light-on mode corresponds to the NC output function for through-beam fibre optics |
| | | | corresponds to the NO output function for diffuse-reflection fibre optics |
| | | | dark-on mode corresponds to the NO output function for through-beam fibre optics |
| | | | corresponds to the NC output function for diffuse-reflection fibre optics |
| | | | operating voltage "supply class 2" according to cULus |
| Pack quantity | | | 1 pcs. |

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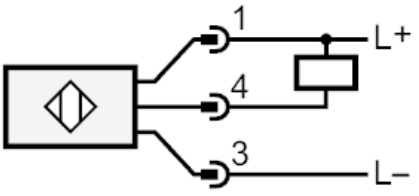
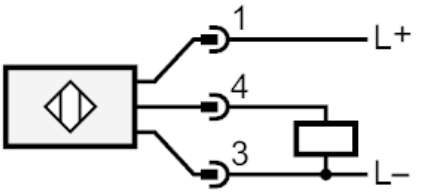
## Electrical connection

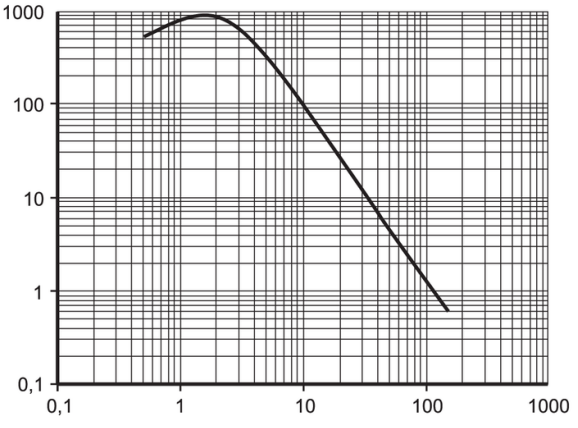
Connector: 1 x M8; coding: A; Contacts: 3


## Diagrams and graphs

excess gain graph




x: Abstand [mm]

y: Funktionsreservefaktor