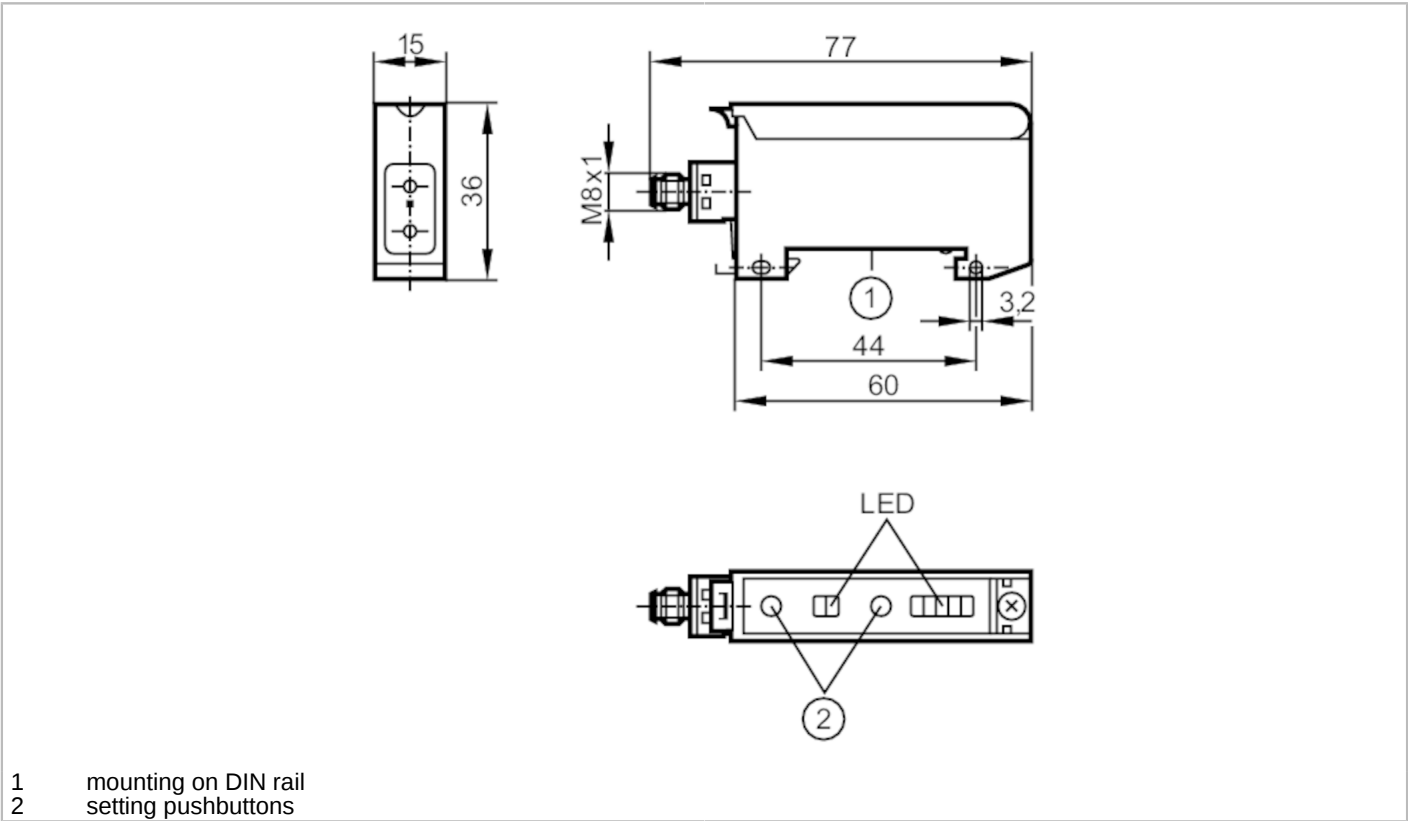


# OBF501



## Fibre-optic amplifier

OBF-FAKG/T/AS



| Product characteristics                    |      |                                                 |
|--------------------------------------------|------|-------------------------------------------------|
| Type of light                              |      | red light                                       |
| Housing                                    |      | rectangular                                     |
| Application                                |      |                                                 |
| Special feature                            |      | Function check output                           |
| Design                                     |      | Fibre-optic amplifiers for acrylic fibre optics |
| 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                                             |
| Function check output                      |      | yes                                             |
| Max. voltage drop of function check output | [V]  | 2.5                                             |

# OBF501



## Fibre-optic amplifier

OBF-FAKG/TIAS

|                                                 |                                                                                   |                                         |
|-------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------|
| Max. current load for function check output     | [mA]                                                                              | 10                                      |
| Permanent current rating of switching output DC | [mA]                                                                              | 100                                     |
| Switching frequency DC                          | [Hz]                                                                              | 3000                                    |
| Short-circuit protection                        |                                                                                   | yes                                     |
| Type of short-circuit protection                |                                                                                   | pulsed                                  |
| Overload protection                             |                                                                                   | yes                                     |
| Time function                                   | [s]                                                                               | 0.001...0.09                            |
| <b>Detection zone</b>                           |                                                                                   |                                         |
| Range                                           | [m]                                                                               | 0...2; (Through-beam sensor)            |
| Range                                           | [mm]                                                                              | 0...100; (Diffuse reflection sensor)    |
| Range adjustable                                |                                                                                   | yes                                     |
| <b>Operating conditions</b>                     |                                                                                   |                                         |
| Ambient temperature                             | [°C]                                                                              | -25...60                                |
| Protection                                      |                                                                                   | IP 65                                   |
| <b>Tests / approvals</b>                        |                                                                                   |                                         |
| EMC                                             |                                                                                   | EN 60947-5-2                            |
| MTTF                                            | [years]                                                                           | 806                                     |
| <b>Mechanical data</b>                          |                                                                                   |                                         |
| Weight                                          | [g]                                                                               | 48.35                                   |
| Housing                                         |                                                                                   | rectangular                             |
| Type of mounting                                |                                                                                   | mounting on DIN rail; (TH35 (EN 60715)) |
| Dimensions                                      | [mm]                                                                              | 36 x 15 x 60                            |
| Materials                                       |                                                                                   | PPE modified                            |
| Lens alignment                                  |                                                                                   | side lens                               |
| <b>Displays / operating elements</b>            |                                                                                   |                                         |
| Display                                         | switching status                                                                  | 1 x LED, yellow                         |
|                                                 | operation                                                                         | 1 x LED, green                          |
|                                                 | unsafe zone                                                                       | 1 x LED, red                            |
|                                                 | excess gain                                                                       | 4 x LED, green                          |
| <b>Remarks</b>                                  |                                                                                   |                                         |
| 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.                                  |

## Fibre-optic amplifier

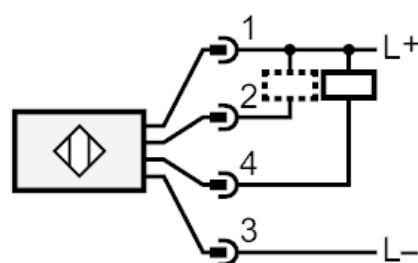
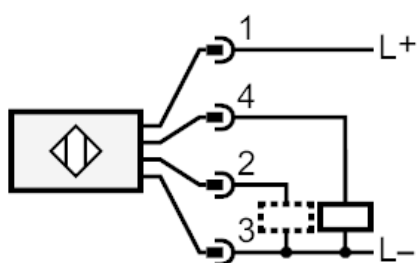
OBF-FAKG/TIAS

### Electrical connection

Connector: 1 x M8; coding: A



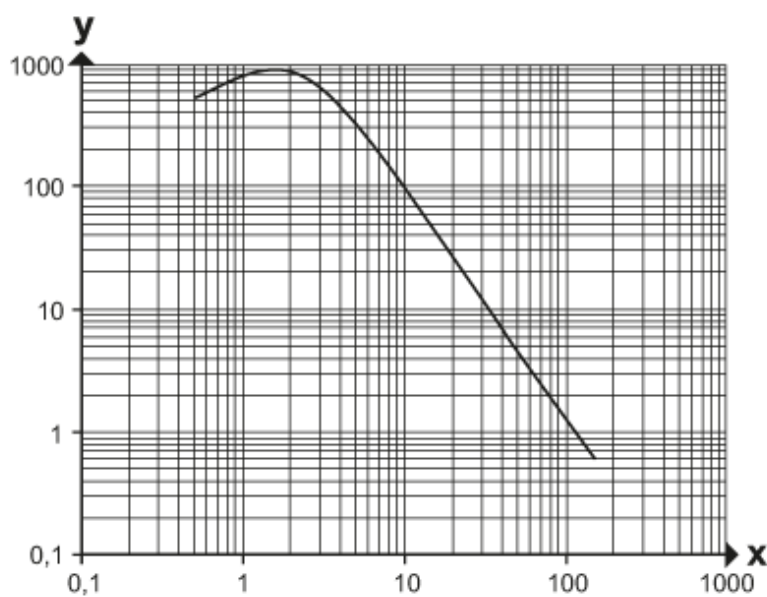
### Connection



2 Function check output

### Diagrams and graphs

excess gain graph



x: Abstand [mm]

y: Funktionsreservefaktor