

## Technical data sheet

### Plastic fiber optics for throughbeam operation

Part no.: 50152665

KF-L-100MLF-02

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For illustration purposes only

## Technical data

### Basic data

|                     |                            |
|---------------------|----------------------------|
| Series              | KF                         |
| Operating principle | Throughbeam principle      |
| Device type         | Transmit and receive fiber |
| Area of application | General applications       |

### Special version

|                 |                |
|-----------------|----------------|
| Special version | Area detection |
|-----------------|----------------|

### Optical data

|                                |                           |
|--------------------------------|---------------------------|
| Light beam exit                | Lateral                   |
| Fiber core                     | Mixed fiber configuration |
|                                | Multiple fiber core       |
| Fiber core material            | Plastic                   |
| Active fiber diameter          | 0.265 mm x 32 Piece(s)    |
| Operating range with LV461     | 0 ... 300 mm              |
| Operating range with LV462     | 0 ... 440 mm              |
| Operating range with LV463     | 0 ... 440 mm              |
| Operating range with LV463.XV  | 0 ... 440 mm              |
| Operating range with LV463.XR  | 0 ... 440 mm              |
| Operating range with LV463L.XR | 0 ... 440 mm              |

### Measurement data

|                         |        |
|-------------------------|--------|
| Minimum object diameter | 3.5 mm |
|-------------------------|--------|

### Mechanical data

|                                     |                           |
|-------------------------------------|---------------------------|
| Design                              | Cubic                     |
| Outer diameter                      | 2.8 mm                    |
| Net weight                          | 85 g                      |
| Head material                       | Zinc                      |
| Type                                | Plastic fiber optics (KF) |
| Fiber length                        | 210 mm                    |
| Light field width                   | 100 mm                    |
| Fiber sheathing material            | PE                        |
| Fastening of the probe              | 2 x Ø 4.1 mm              |
| Smallest bending radius (moving)    | R60                       |
| Laying                              | standard                  |
| Damping at $\lambda = 650\text{nm}$ | 210 dB/km                 |

### Environmental data

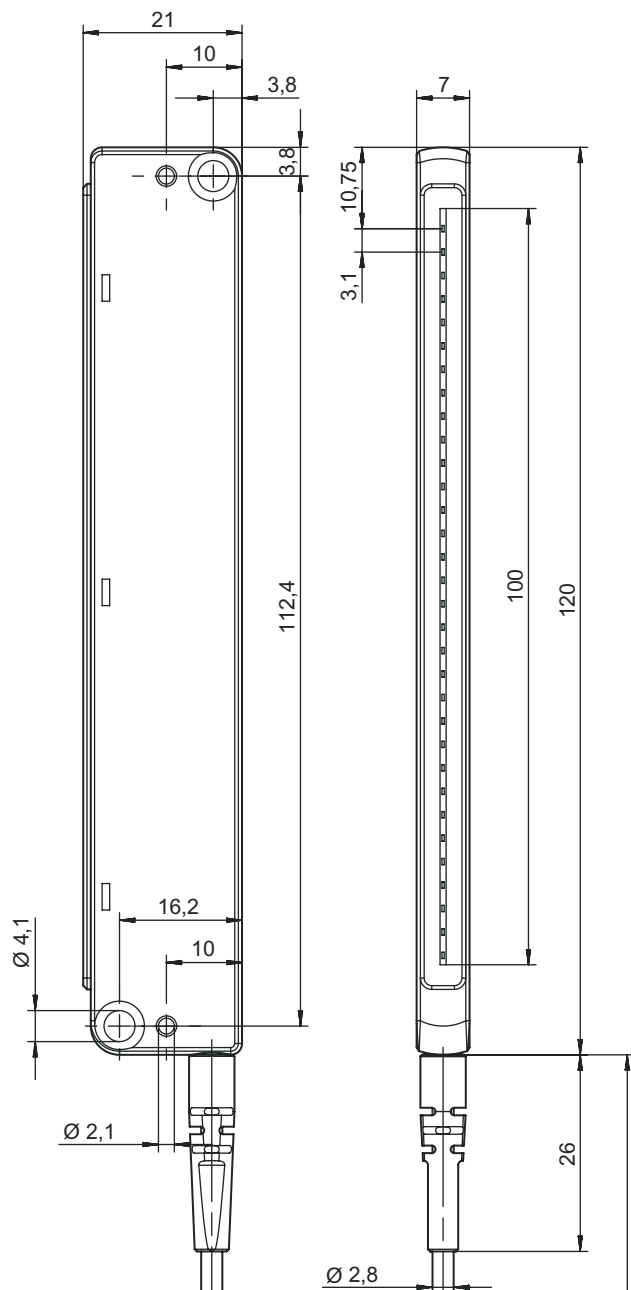
|                                |               |
|--------------------------------|---------------|
| Ambient temperature, operation | -55 ... 70 °C |
|--------------------------------|---------------|

### Classification

|                       |          |
|-----------------------|----------|
| Customs tariff number | 90011090 |
| ECLASS 5.1.4          | 27270905 |
| ECLASS 8.0            | 27270905 |
| ECLASS 9.0            | 27270905 |
| ECLASS 10.0           | 27270905 |
| ECLASS 11.0           | 27273606 |
| ECLASS 12.0           | 27273606 |
| ECLASS 13.0           | 27273606 |
| ECLASS 14.0           | 27273606 |
| ECLASS 15.0           | 27273606 |
| ETIM 5.0              | EC002651 |
| ETIM 6.0              | EC002651 |
| ETIM 7.0              | EC002651 |
| ETIM 8.0              | EC002651 |
| ETIM 9.0              | EC002651 |
| ETIM 10.0             | EC002651 |

## Dimensioned drawings

All dimensions in millimeters



## Notes



**Observe intended use!**



- ⚠ This product is not a safety sensor and is not intended as personnel protection.
- ⚠ The product may only be put into operation by competent persons.
- ⚠ Only use the product in accordance with its intended use.

## Further information

- Suitable products for operating these fiber optics are the fiber optic amplifiers LV461, LV462B as well as LV463, LV463.XV and LV463.XR.
- The maximum range is limited by the length of the light conductor.
- Operating range measured on a white object (90% diffuse reflection) with the following settings on the fiber optic amplifier:
  - max. response time
  - max. amplification
  - min. switching threshold