

# **Technical data sheet** Plastic fiber optics for throughbeam operation

Part no.: 50132746

KF-L-320



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# **Technical data**

# Leuze

#### Basic data

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

#### **Optical data**

| Light beam exit                | Front             |
|--------------------------------|-------------------|
| Fiber core                     | Single fiber core |
| Fiber core material            | Plastic           |
| Active fiber diameter          | 1 mm              |
| Operating range with LV461     | 0 300 mm          |
| Operating range with LV462     | 0 525 mm          |
| Operating range with LV463     | 0 900 mm          |
| Operating range with LV463.XV  | 0 1,350 mm        |
| Operating range with LV463.XR  | 0 1,620 mm        |
| Operating range with LV463I.XR | 0 2,430 mm        |
|                                |                   |

#### Measurement data

| Minimum | object | diameter | 0.5 | mn |
|---------|--------|----------|-----|----|
|         |        |          |     |    |

#### **Mechanical data**

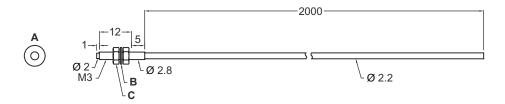
| Design                              | Cylindrical               |
|-------------------------------------|---------------------------|
| Outer diameter                      | 2.8 mm                    |
| Net weight                          | 28 g                      |
| Head material                       | Stainless steel           |
| Туре                                | Plastic fiber optics (KF) |
| Fiber length                        | 2,000 mm                  |
| Fiber sheathing material            | PE                        |
| Fastening of the probe              | M3                        |
| Smallest bending radius (moving)    | R25                       |
| Sleeve length at optical outlet     | 12 mm                     |
| Metric thread on fiber optic sleeve | Yes                       |
| Laying                              | standard                  |
| Damping at λ = 650nm                | 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



- Ø 1.0 mm glass fiber core x 1 pc
- Lock washer Ø 6.4 mm
- Width Ø 5 mm Thickness 2.2 mm

### **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

## **Accessories**

## General

| Part no.        | Designation  | Article            | Description   |
|-----------------|--------------|--------------------|---|
| 50135984        | KF-PT-SS-619 | Protective housing | Type of article: Protection tube for mechanical protection of plastic fiber optic cables Suitable for: Plastic fiber optics Outer diameter: 4.6 mm Inner diameter: 3 mm Material: Stainless steel |
| <br>50117785 ** | KLC-4530     | Tool               | Type: Cutting tool  |

<sup>\*\*</sup> Included in delivery contents

#### Note



🔖 A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.