

## Technical data sheet

### Plastic fiber optics type diffuse reflective

Part no.: 50117761

KFX-ETC-320-Q

#### Contents

- Technical data
- Dimensioned drawings
- Notes
- Further information
- Accessories



For illustration purposes only

Technical data

Basic data

|                     |                              |
|---------------------|------------------------------|
| Series              | KFX                          |
| Operating principle | Diffuse reflection principle |
| Area of application | General applications         |

Optical data

|                                |                             |
|--------------------------------|-----------------------------|
| Light beam exit                | Front                       |
| Fiber core                     | Coaxial fiber configuration |
|                                | Multiple fiber core         |
| Fiber core material            | Plastic                     |
| Active fiber diameter          | 0.25 mm                     |
| Operating range with LV461     | 0 ... 30 mm                 |
| Operating range with LV462     | 0 ... 60 mm                 |
| Operating range with LV463     | 0 ... 90 mm                 |
| Operating range with LV463.XV  | 0 ... 135 mm                |
| Operating range with LV463.XR  | 0 ... 160 mm                |
| Operating range with LV463L.XR | 0 ... 245 mm                |

Measurement data

|                         |         |
|-------------------------|---------|
| Minimum object diameter | 0.05 mm |
|-------------------------|---------|

Mechanical data

|                                     |                                                 |
|-------------------------------------|-------------------------------------------------|
| Design                              | Cylindrical                                     |
| Outer diameter                      | 1.25 mm                                         |
| Head material                       | Stainless steel                                 |
| Type                                | Plastic fiber optics with bend protection (KFX) |
| Fiber length                        | 2,000 mm                                        |
| Fiber sheathing material            | PE                                              |
| Fastening of the probe              | M3                                              |
| Smallest bending radius (moving)    | R15                                             |
| Sleeve length at optical outlet     | 15 mm                                           |
| Metric thread on fiber optic sleeve | No                                              |
| Laying                              | standard                                        |
| Damping at $\lambda = 650\text{nm}$ | 210 dB/km                                       |

Environmental data

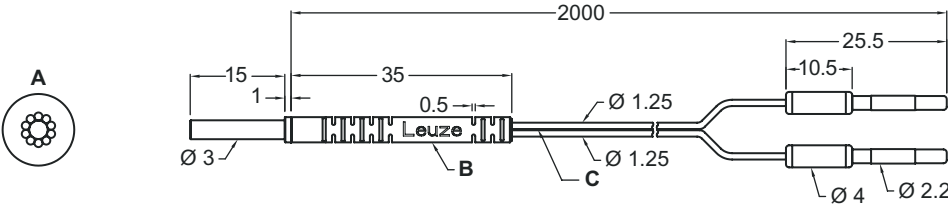
|                                |               |
|--------------------------------|---------------|
| Ambient temperature, operation | -55 ... 70 °C |
|--------------------------------|---------------|

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 |

Dimensioned drawings

All dimensions in millimeters



A  
B  
C

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 setting 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<br>Suitable for: Plastic fiber optics<br>Length: 1,900 mm<br>Outer diameter: 4.6 mm<br>Inner diameter: 3 mm<br>Material: Stainless steel |
|                                                                                    | 50117785 ** | KLC-4530     | Tool               | Type: Cutting tool                                                                                                                                                                                                                |

\*\* 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.