

## Technical data sheet

### Plastic fiber optics type diffuse reflective

Part no.: 50121079

KFX-ET-605

#### Contents

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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                     | Single fiber core |
| Fiber core material            | Plastic           |
| Active fiber diameter          | 1 mm              |
| Operating range with LV461     | 0 ... 80 mm       |
| Operating range with LV462     | 0 ... 140 mm      |
| Operating range with LV463     | 0 ... 240 mm      |
| Operating range with LV463.XV  | 0 ... 360 mm      |
| Operating range with LV463.XR  | 0 ... 430 mm      |
| Operating range with LV463L.XR | 0 ... 650 mm      |

Measurement data

|                         |        |
|-------------------------|--------|
| Minimum object diameter | 0.2 mm |
|-------------------------|--------|

Mechanical data

|                                     |                                                 |
|-------------------------------------|-------------------------------------------------|
| Design                              | Cylindrical                                     |
| Outer diameter                      | 2.2 mm                                          |
| Net weight                          | 15 g                                            |
| Head material                       | Stainless steel                                 |
| Type                                | Plastic fiber optics with bend protection (KFX) |
| Fiber length                        | 500 mm                                          |
| Fiber sheathing material            | PE                                              |
| Fastening of the probe              | M6                                              |
| Smallest bending radius (moving)    | R25                                             |
| Sleeve length at optical outlet     | 15 mm                                           |
| Metric thread on fiber optic sleeve | Yes                                             |
| Laying                              | standard                                        |
| Damping at λ = 650nm                | 210 dB/km                                       |

Environmental data

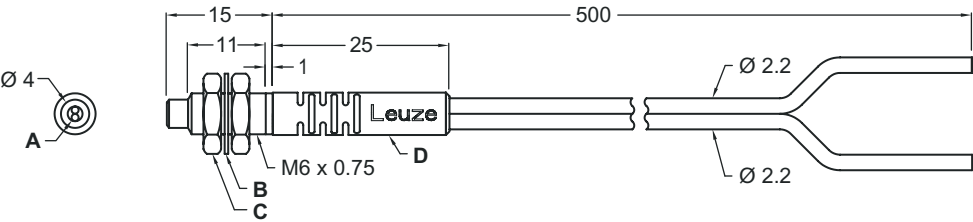
|                                |               |
|--------------------------------|---------------|
| Ambient temperature, operation | -55 ... 70 °C |
|--------------------------------|---------------|

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



- A Ø 1.0 mm glass fiber core x 2 pcs
- B Lock washer Ø 11 mm
- C Width Ø 10 mm  
Thickness 2.5 mm
- D Bend protection, PVC

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<br>Suitable for: Plastic fiber optics<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.