

## Technical data sheet

### Plastic fiber optics for throughbeam operation

Part no.: 50141663

KF-L-450

#### Contents

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



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

### 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 mm
-------------------------	--------

### Mechanical data

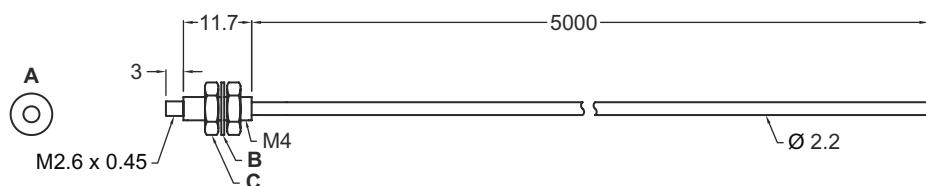
Design	Cylindrical
Outer diameter	2.2 mm
Net weight	48 g
Head material	Stainless steel
Type	Plastic fiber optics (KF)
Fiber length	5,000 mm
Fiber sheathing material	PE
Fastening of the probe	M2.6 x 0.45 mm
Smallest bending radius (moving)	R25
Sleeve length at optical outlet	15 mm
Metric thread on fiber optic sleeve	Yes
Laying	standard
Damping at $\lambda = 650\text{nm}$	210 dB/km

### Environmental data

Ambient temperature, operation	-55 ... 70 °C
<b>Classification</b>	
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 plastic fiber core x 1 pc

B Lock washer Ø 8.3 mm

C Width Ø 8 mm  
Thickness 2.3 mm

We reserve the right to make technical changes  
eng • 2026-01-08

## Notes

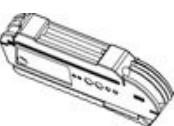
	<b>Observe intended use!</b>
	<p>⚠ This product is not a safety sensor and is not intended as personnel protection.</p> <p>⚠ The product may only be put into operation by competent persons.</p> <p>⚠ Only use the product in accordance with its intended use.</p>

## 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
	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.