

## LV461

en 01-2012/05 50118004



up to 300mm

up to 80mm

10 - 30 V  
DC



- Thin construction and small outer dimensions for easy integration if installation space is tight
- PNP and NPN switching output
- Switch for changing between light and dark switching
- Switch for changing between short response time and higher range
- 20-turn potentiometer for sensitivity adjustment provide for optimal adaptation to the application
- Indicator diode for operation and switching output
- Connection via cable or cable with M8 connector

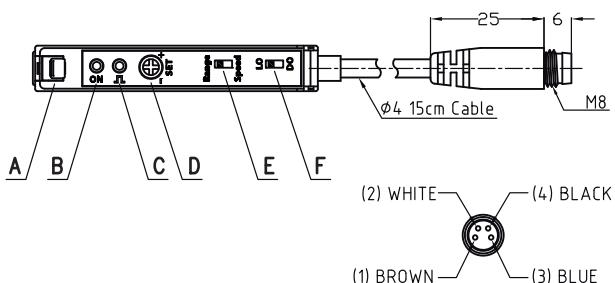
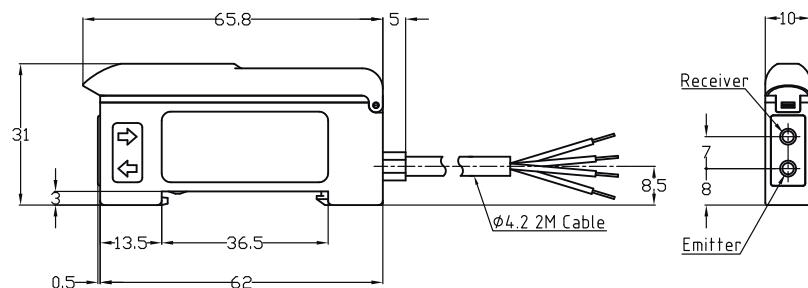


### Accessories:

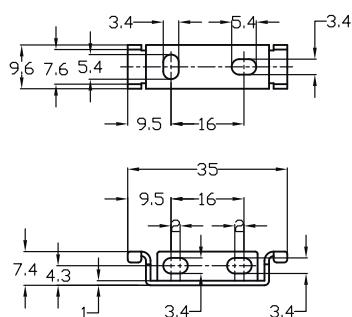
(available separately)

- Plastic fiber optics (KF, KFX)
- Ready-made cables (KB ...)

### Dimensioned drawing

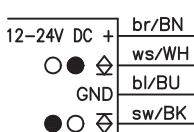
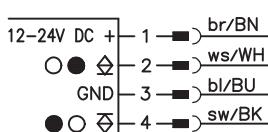


### Supplied mounting accessories



**A** Lever for fiber optic clamp  
**B** Green indicator diode - readiness for operation  
**C** Red indicator diode - switching output  
**D** Potentiometer for sensitivity adjustment  
**E** Switch operating mode 'Range' / 'Speed'  
**F** Switch light (LO)/dark (DO) switching

### Electrical connection



## Specifications

### Optical data

Operating range/scanning range <sup>1)</sup>  
Light source  
Wavelength

### Timing

Switching frequency <sup>2)</sup>  
Response time  
Delay before start-up

### Electrical data

Operating voltage  $U_B$   
Residual ripple  
Open-circuit current  
Switching output

Function  
Signal voltage high/low  
Output current  
Sensitivity

### Indicators

LED green  
Red LED

### Mechanical data

Housing  
Weight

Connection type

Fiber optic connection

### Environmental data

Ambient temp. (operation/storage)  
Protective circuit <sup>3)</sup>  
Protection class  
Standards applied

### Options

Operating mode switch

### Throughbeam principle

up to 300mm  
LED (modulated light)  
680nm (visible red light)

### Operating mode 'Range'

250Hz  
1ms  
 $\leq 150\text{ms}$

### Scanning principle

up to 80mm

### Operating mode 'Speed'

500Hz  
2ms

12 ... 24VDC  $\pm 10\%$

$\leq 10\%$  of  $U_B$

$\leq 40\text{mA}$

antivalent transistor outputs

pin 4/black: PNP, pin 2/white: NPN

light/dark switching, adjustable by means of a switch

$\geq (U_B - 2.5\text{V}) / \leq 2.5\text{V}$

$\leq 100\text{mA}$

adjustable via 20-turn potentiometer

ready for operation  
switching output active

ABS

35g with 2000mm cable

65g with 150mm cable and M8 connector  
cable 2000mm, 4 x 0.25mm<sup>2</sup>, or

cable 150mm with M8 connector, 4-pin  
clamp

-10°C ... +60°C/-40°C ... +70°C

2, 3

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selection of 'range' or 'speed' operating mode

1) Range/scanning range depending on the fiber optics used

2) With a duty cycle of 1:1

3) 2=polarity reversal protection, 3=short circuit protection for all outputs

## Tables



### Notice!

Detailed specifications on the range/scanning range are enclosed in the data sheets of our fiber optics type **KF** or **KFX**.

## Diagrams

## Order guide

### Connection type

Cable 2000mm, 4 x 0.25mm<sup>2</sup>

Cable 150mm with M8 connector, 4-pin

### Designation

LV461.1/P2

LV461.1/P2-150-M8

### Part no.

50118398

50118399

## Remarks

### ● Approved purpose:

This product may only be used by qualified personnel and must only be used for the approved purpose. This sensor is not a safety sensor and is not to be used for the protection of persons.