

LV461

Amplifier for fiber optics

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

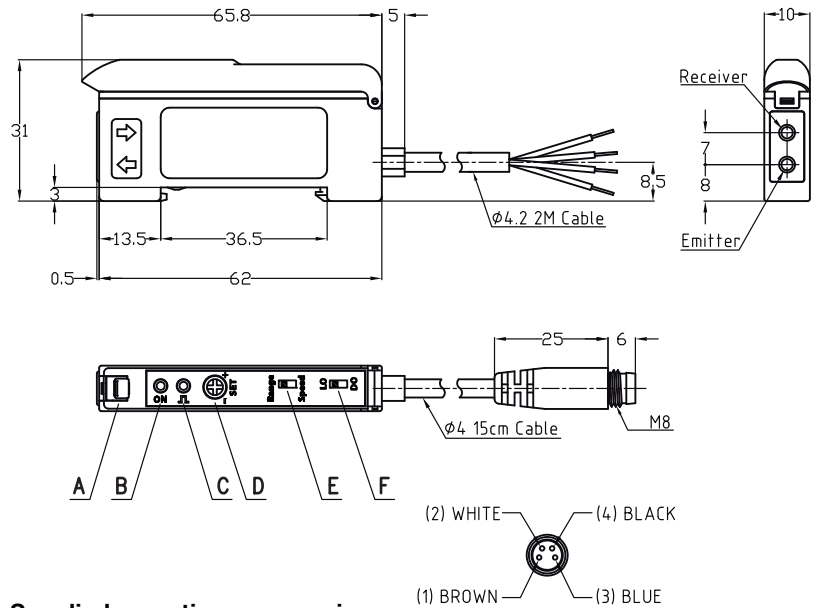
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Accessories:

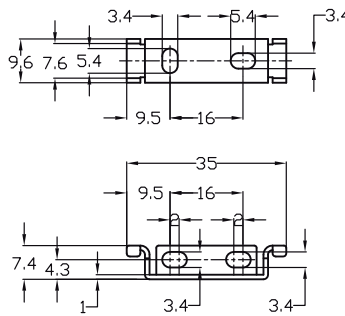
(available separately)

- 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 ¹⁾
Light source
Wavelength

Timing

Switching frequency ²⁾
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 ³⁾
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
≤ 150ms

Scanning principle

up to 80mm

Operating mode 'Speed'

500Hz
2ms

12 ... 24VDC ± 10%

≤ 10% of U_B

≤ 40mA

antivalent transistor outputs

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

light/dark switching, adjustable by means of a switch
≥ ($U_B - 2.5V$) / ≤ 2.5V

≤ 100mA

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 0.25mm², or

cable 150mm with M8 connector, 4-pin

clamp

-10°C ... +60°C / -40°C ... +70°C

2, 3

IP 54

EN 60947-5-2

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	Designation	Part no.
Cable 2000mm, 4 x 0.25mm ²	LV461.1/P2	50118398
Cable 150mm with M8 connector, 4-pin	LV461.1/P2-150-M8	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.