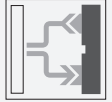




Fiber optic sensor RLK61-LL-IR-Z/31/135



- Cost-optimized series for standard tasks in a special design
- Compact design
- Wide range of mounting options thanks to cubic housing design with M30 thread
- 360° high visibility LEDs
- Programmable ON-delay, OFF-delay, and One-shot timers
- Version for universal voltages
- Relay output
- Includes universal fiber adapter kit

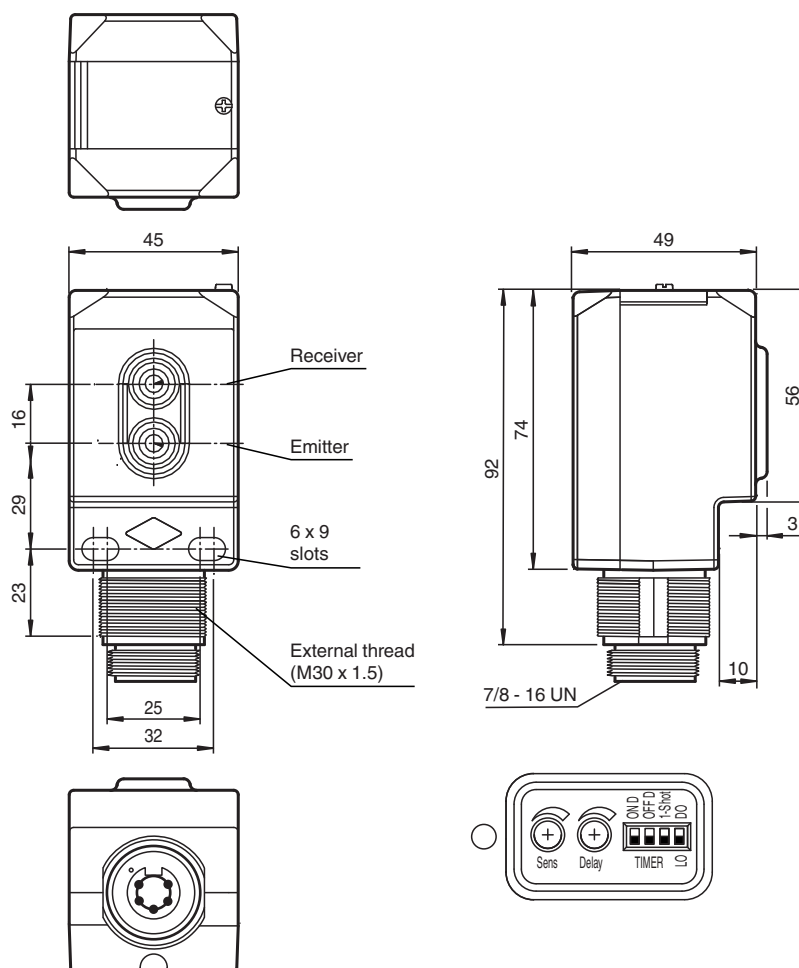
Fiber optic sensor



Function

The Series 61 sensor family is a comprehensive product line, offering five sensing modes. Each sensor is equipped with four LEDs that are highly visible from all directions, indicating Power-On, target presence and marginal excess gain. The widely recognized, polycarbonate housing provides a IP67 protection degree rating. Color-coded labels are clearly printed on the housing to easily identify the sensing mode. DC models offer a 4-in-1 output while AC/DC models have a SPDT relay output rated to 3 A. All versions come standard with an integral multifunction timer, sensitivity adjustment and Light-ON/Dark-ON switch. Series 61 sensors are cross-talk protected and have a high degree of resistance to ambient lighting. Each sensor can be mounted via front and rear slots, rear dovetail guide or M30 x 1.5 mounting base. Additionally, cabled sensor models provide 1/2" - 14 NPT internal threads for use with flexible conduit.

Dimensions



Technical Data

General specifications

Detection range	Dependent on fibers selected
Light source	IRED
Light type	modulated infrared light , 850 nm
Ambient light limit	5000 Lux ; according EN 60947-5-2

Indicators/operating means

Operation indicator	2 LEDs green
Function indicator	2 LEDs yellow lights up when receiving the light beam ; flashes when falling short of the stability control; OFF: object outside the sensing range
Control elements	Light-on/dark-on changeover switch
Control elements	Sensing range adjuster
Control elements	Time adjuster (0 ... 10 s)

Electrical specifications

Operating voltage	U_B	24 ... 240 V AC 12 ... 240 V DC
No-load supply current	I_0	≤ 35 mA
Protection class		II , rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1 Output circuit basis insulation of input circuit according to EN 50178, rated insulation voltage 240 V AC
Power consumption	P_0	≤ 2 VA

Output

Switching type	light/dark on, switchable
Signal output	1 SPDT relay
Switching voltage	max. 250 V AC/DC

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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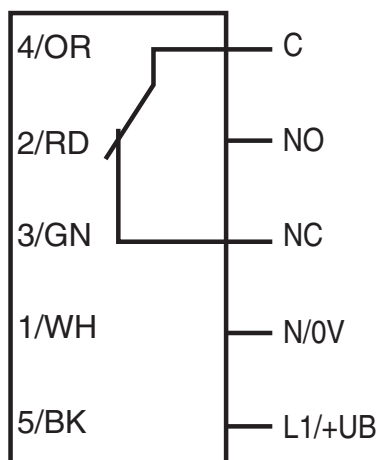
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PEPPERL+FUCHS

Technical Data

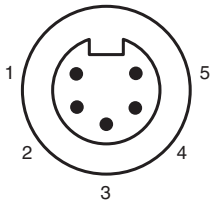
Switching current		max. 3 A
Switching power		DC: max. 150 W AC: max. 750 VA
Switching frequency	f	20 Hz
Response time		≤ 25 ms
Timer function		DIP switch for selection of operating modes
Compliance with standards and directives		
Directive conformity		
EMC Directive 2004/108/EC		EN 60947-5-2:2007+A1:2012
Standard conformity		
Product standard		EN 60947-5-2:2007 IEC 60947-5-2:2007
Standards		EN 50178, UL 508
Approvals and certificates		
EAC conformity		TR CU 020/2011 TR CU 004/2011
UL approval		cULus Listed, Type 1 enclosure For overcurrent protection, install a fuse with a rated current of max. 5 A and min. 240 V AC/DC
CCC approval		Certified by China Compulsory Certification (CCC)
Ambient conditions		
Ambient temperature		-40 ... 55 °C (-40 ... 131 °F)
Storage temperature		-40 ... 70 °C (-40 ... 158 °F)
Mechanical specifications		
Housing width		45 mm
Housing height		73.7 mm
Housing depth		48.6 mm
Degree of protection		IP67
Connection		V95 quick disconnect
Material		
Housing		PC (Polycarbonate)
Optical face		PMMA
Mass		approx. 140 g
Tightening torque, fastening screws		max. 2 Nm

Connection Assignment



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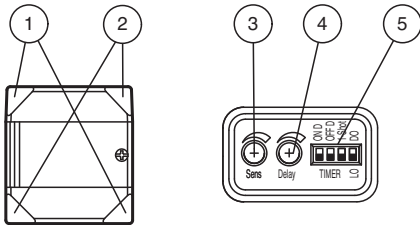
Connection Assignment



Wire colors

1	WH	(white)
2	RD	(red)
3	GN	(green)
4	OR	(orange)
5	BK	(black)

Assembly



1	Operating display	green
2	Signal display	yellow
3	Sensing range adjuster	
4	Time adjuster	
5	DIP-switches	

Accessories

	FE-BTS6S-5	Glass fiber optic - diffuse
	FE-BTS6M-3	Glass fiber optic - diffuse
	MPGKITC	Fiber cable adapter kit
	MPZB01	Mounting bracket with vertical slots
	MPZB02	Mounting bracket with circular slots
	MPZB06	Ball and Swivel Mounting Bracket
	MPZB07	Ball and Swivel Vertical Mounting Plate
	FE-BTS6S-3	Glass fiber optic - diffuse
	FE-BTSAS6S-3	Glass fiber optic - diffuse
	FE-BTSAS6M-3	Glass fiber optic - diffuse

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Accessories

	FE-BNSRA5S-3	Glass fiber optic - diffuse
	FE-BRL7S-3	Glass fiber optic - diffuse
	FE-BRL7M-3	Glass fiber optic - diffuse
	FE-BNSRA5M-3	Glass fiber optic - diffuse

Configuration

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Timer Functions

Switching Type	Detection Status	Operation Mode	Light Received	No Light Received
L.ON				
OFF ON Timer LO	No Delay (Timer OFF)		ON	OFF
OFF ON Timer LO	ON Delay		ON	OFF
OFF ON Timer LO	OFF Delay		ON	OFF
OFF ON Timer LO	One-Shot Delay		ON	OFF
OFF ON Timer LO	ON Delay and OFF Delay		ON	OFF
D.ON				
OFF ON Timer LO	No Delay (Timer OFF)		ON	OFF
OFF ON Timer LO	ON Delay		ON	OFF
OFF ON Timer LO	OFF Delay		ON	OFF
OFF ON Timer LO	One-Shot Delay		ON	OFF
OFF ON Timer LO	ON Delay and OFF Delay		ON	OFF

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Time (T) is adjustable from 0 to 10 sec

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