



## 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

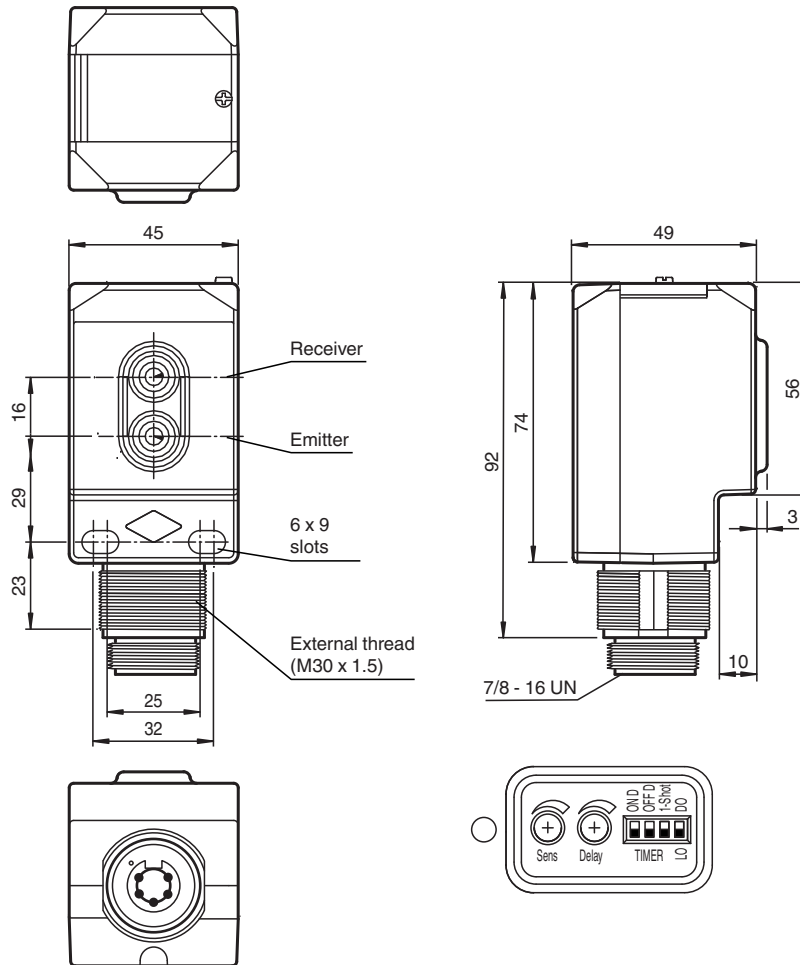
### Fiber optic sensor



### 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 ½" - 14 NPT internal threads for use with flexible conduit.

**Dimensions**



**Technical Data**

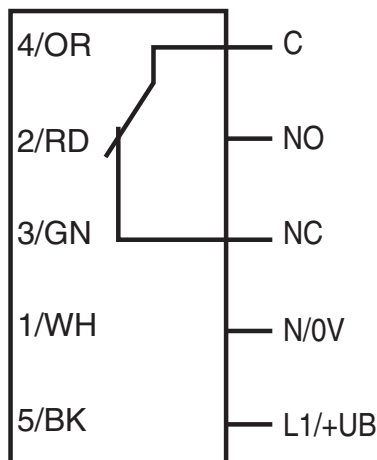
<b>General specifications</b>		
Detection range		Dependent on fibers selected
Light source		IREL
Light type		modulated infrared light , 850 nm
Ambient light limit		5000 Lux ; according EN 60947-5-2
<b>Indicators/operating means</b>		
Operation indicator		2 LEDs green
Function indicator		2 LEDs yellow 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 )
<b>Electrical specifications</b>		
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
<b>Output</b>		
Switching type		light/dark on, switchable
Signal output		1 SPDT relay
Switching voltage		max. 250 V AC/DC

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## 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
<b>Compliance with standards and directives</b>		
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
<b>Approvals and certificates</b>		
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)
<b>Ambient conditions</b>		
Ambient temperature		-40 ... 55 °C (-40 ... 131 °F)
Storage temperature		-40 ... 70 °C (-40 ... 158 °F)
<b>Mechanical specifications</b>		
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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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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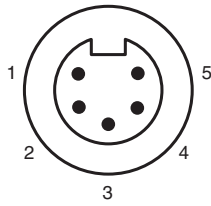
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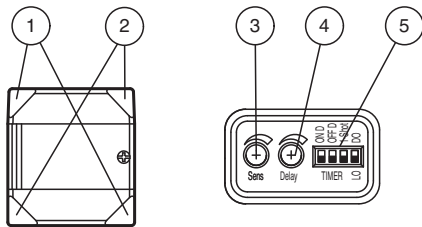
## Connection Assignment



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

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

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**Accessories**

	<b>FE-BNSRA5S-3</b>	Glass fiber optic - diffuse
	<b>FE-BRL7S-3</b>	Glass fiber optic - diffuse
	<b>FE-BRL7M-3</b>	Glass fiber optic - diffuse
	<b>FE-BNSRA5M-3</b>	Glass fiber optic - diffuse

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## Configuration

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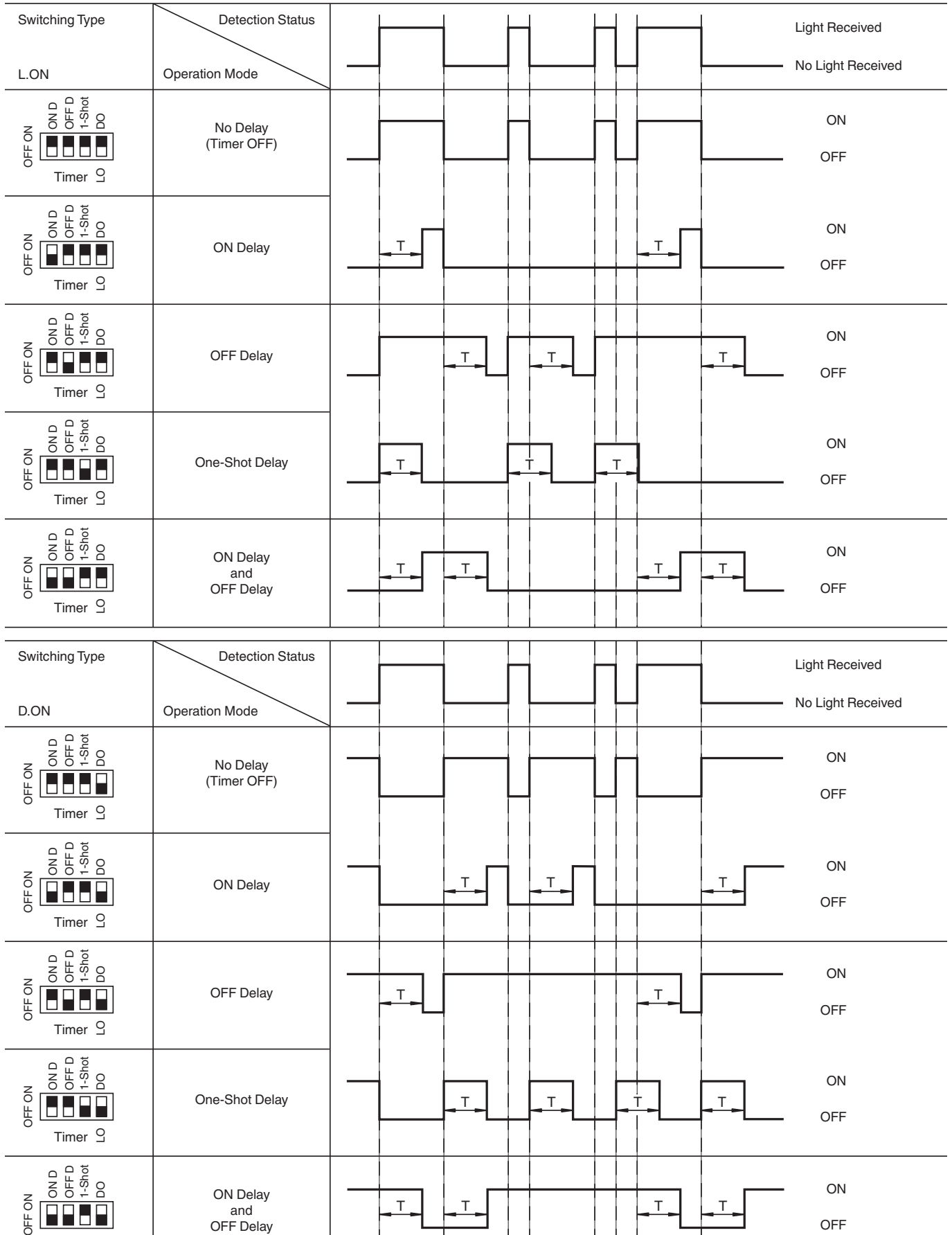
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Timer Functions



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Time (T) is adjustable from 0 to 10 sec

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