



## Description:

The compact design is very suitable for limited mounting space requirement in electronic, semiconductor and other industries. BGS products have excellent black-and-white attenuation characteristics, suitable for detecting non-bright surface objects, minimum detectable 0.2mm copper wire.

## Features:

- AK30 product can stably detect transparent glass bottles
- Spot light source, divergent light with small-angle
- Mounting hole  $\Phi 3$ , built-in metal parts, strong and long life-time

## Type:

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring		
Opposed	OS21-S6 (emitter)	1m	Infrared	---	---	---	2m cable	Fig.1		
	OS21-ELN6 (receiver)		---	800Hz	NPN	Light on	2m cable	Fig.2		
	OS21-EDN6 (receiver)		---	800Hz	NPN	Dark on	2m cable	Fig.3		
		OS21-S6 (emitter)	1m	Infrared	---	---	---	2m cable	Fig.1	
		OS21-ELP6 (receiver)		---	800Hz	PNP	Light on	2m cable	Fig.4	
		OS21-EDP6 (receiver)		---	800Hz	PNP	Dark on	2m cable	Fig.5	
		OS21-S26 (emitter)	2m	Infrared	---	---	---	2m cable	Fig.1	
		OS21-E2LN6 (receiver)		---	800Hz	NPN	Light on	2m cable	Fig.2	
		OS21-E2DN6 (receiver)		---	800Hz	NPN	Dark on	2m cable	Fig.3	
			OS21-S26 (emitter)	2m	Infrared	---	---	---	2m cable	Fig.1
			OS21-E2LP6 (receiver)		---	800Hz	PNP	Light on	2m cable	Fig.4
			OS21-E2DP6 (receiver)		---	800Hz	PNP	Dark on	2m cable	Fig.5
BGS	OS21-AK15LN6	4...15mm	Red	800Hz	NPN	Light on	2m cable	Fig.2		
	OS21-AK15DN6		Red	800Hz	NPN	Dark on	2m cable	Fig.3		
	OS21-AK15LP6		Red	800Hz	PNP	Light on	2m cable	Fig.4		
	OS21-AK15DP6		Red	800Hz	PNP	Dark on	2m cable	Fig.5		
		OS21-AK30LN6	5...30mm	Red	800Hz	NPN	Light on	2m cable	Fig.2	
		OS21-AK30DN6		Red	800Hz	NPN	Dark on	2m cable	Fig.3	
		OS21-AK30LP6		Red	800Hz	PNP	Light on	2m cable	Fig.4	
		OS21-AK30DP6		Red	800Hz	PNP	Dark on	2m cable	Fig.5	
		OS21-AK50LN6	5...50mm	Red	800Hz	NPN	Light on	2m cable	Fig.2	
		OS21-AK50DN6		Red	800Hz	NPN	Dark on	2m cable	Fig.3	
		OS21-AK50LP6		Red	800Hz	PNP	Light on	2m cable	Fig.4	
		OS21-AK50DP6		Red	800Hz	PNP	Dark on	2m cable	Fig.5	

# Photoelectric Sensors—Mini-OS21

## Technical Data:

Operating voltage	10...30VDC
Ripple voltage	≤10%
Output type	PNP/NPN (Depends on the model)
Output feature	Light on/dark on (Depends on the model)
No-load current	≤20mA
load current	<100mA
Black and white attenuation	< 2mm(AK15、 AK30); < 8mm(AK50)
Spot size	5mm(AK15); 6mm(AK30); 8mm(AK50)
Light source	Red, Infrared
Output indicator	Yellow LED
Steady state indicator	Green LED
Housing material	PC+ABS
Lens material	PMM4
Protection class	IP67
Ambient temperature	-20...+50°C
Storage temperature	-40...+70°C
Circuit protection	Reverse polarity protection, short circuit protection, overload protection, voltage shock protection
Voltage withstanding	1000V/AC 50/60Hz 60s
Insulation impedance	≥50MΩ(500VDC)
Shock resistance	Complex amplitude 1.5mm 10... 50Hz (2hr X, Y,Z respectively)
Impact resistance	500m/S <sup>2</sup> (50G) 3 times X,Y,Z respectively

## Wiring:

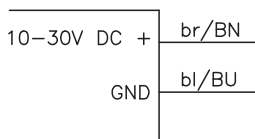


Fig.1

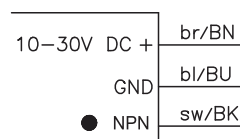


Fig.3

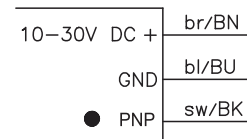


Fig.5

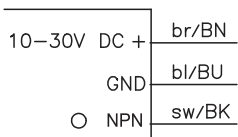


Fig.2

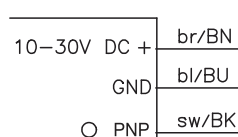
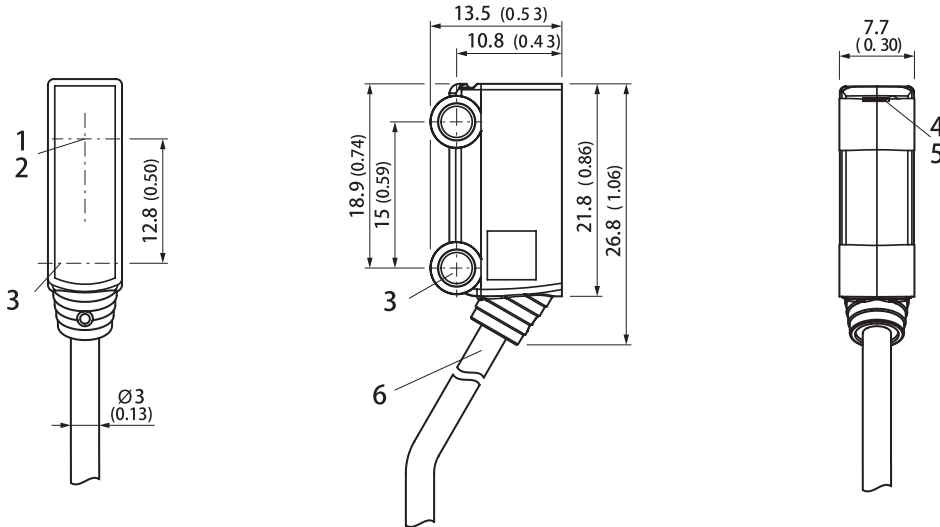


Fig.4

# Photoelectric Sensors—Mini-OS21

## Dimensions:



1	Receiver optic axis
2	Emitter optic axis
3	Mounting hole $\varnothing 3.2\text{mm}$
4	Green LED indicator: power on
5	Yellow LED indicator: receive light
6	Connection: cable connection

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