

Photoelectric Sensors - thin size OS4



Description:

The thin 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.

Features:

- Vcsel laser or red beam
- Mounting hole $\Phi 2$, built-in metal parts, strong and long life-time
- IP67

Type:

Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
Front Opposed	OS4-S6 (emitter)	1m	Red	---	---	---	2m cable	Fig.1
	OS4-SVL6 (emitter)		Vcsel laser	---	---	---	2m cable	Fig.1
	OS4-ELN6 (receiver)		---	800Hz	NPN	Light on	2m cable	Fig.2
	OS4-EDN6 (receiver)		---	800Hz	NPN	Dark on	2m cable	Fig.3
	OS4-ELP6 (receiver)		---	800Hz	PNP	Light on	2m cable	Fig.4
	OS4-EDP6 (receiver)		---	800Hz	PNP	Dark on	2m cable	Fig.5
Side Opposed	OS4B-S6 (emitter)	1m	Red	---	---	---	2m cable	Fig.1
	OS4B-ELN6 (receiver)		---	800Hz	NPN	Light on	2m cable	Fig.2
	OS4B-EDN6 (receiver)		---	800Hz	NPN	Dark on	2m cable	Fig.3
	OS4B-ELP6 (receiver)		---	800Hz	PNP	Light on	2m cable	Fig.4
	OS4B-EDP6 (receiver)		---	800Hz	PNP	Dark on	2m cable	Fig.5
BGS	OS4-AKVL15LN6	4...15mm	Vcsel laser	800Hz	NPN	Light on	2m cable	Fig.2
	OS4-AKVL15DN6		Vcsel laser	800Hz	NPN	Dark on	2m cable	Fig.3
	OS4-AKVL15LP6		Vcsel laser	800Hz	PNP	Light on	2m cable	Fig.4
	OS4-AKVL15DP6		Vcsel laser	800Hz	PNP	Dark on	2m cable	Fig.5
	OS4-AKVL30LN6	5...30mm	Vcsel laser	800Hz	NPN	Light on	2m cable	Fig.2
	OS4-AKVL30DN6		Vcsel laser	800Hz	NPN	Dark on	2m cable	Fig.3
	OS4-AKVL30LP6		Vcsel laser	800Hz	PNP	Light on	2m cable	Fig.4
	OS4-AKVL30DP6		Vcsel laser	800Hz	PNP	Dark on	2m cable	Fig.5

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Detection mode	Type	Distance	Light source	Frequency	Output	Switching mode	Connection	Wiring
BGS	OS4-AK15LN6	4...15mm	Red	800Hz	NPN	Light on	2m cable	Fig.2
	OS4-AK15DN6		Red	800Hz	NPN	Dark on	2m cable	Fig.3
	OS4-AK15LP6		Red	800Hz	PNP	Light on	2m cable	Fig.4
	OS4-AK15DP6		Red	800Hz	PNP	Dark on	2m cable	Fig.5
	OS4-AK30LN6	5...30mm	Red	800Hz	NPN	Light on	2m cable	Fig.2
	OS4-AK30DN6		Red	800Hz	NPN	Dark on	2m cable	Fig.3
	OS4-AK30LP6		Red	800Hz	PNP	Light on	2m cable	Fig.4
	OS4-AK30DP6		Red	800Hz	PNP	Dark on	2m cable	Fig.5

Technical Data:

Operating voltage	10...30VDC
Ripple voltage	≤10%
Output type	PNP/NPN (Depends on the model)
Switch mode	Light on/dark on (Depends on the model)
No-load current	≤20mA
load current	≤50mA
Light source	Laser VCSEL beam (680nm) 、 small red beam (630nm)
Spot size	3mm@30mm (VCSEL beam BGS) 、 8mm@30mm (small red beam BGS) 、 50mm@1m (VCSEL beam opposed) 、 130mm@1m (small beam opposed)
Connection	2m cable
Output indicator	Red LED
Power indicator	Green LED
Housing material	PC+PBT
Lens material	PC
Protection class	IP67
Ambient temperature	-10...+55°C
Storage temperature	-40...+70°C
Protection circuit	Reverse polarity protection, short circuit protection, overload protection, voltage shock protection
Voltage withstanding	650VAC <1mA
Insulation impedance	≥50MΩ (500VDC)
Shock resistance	Complex amplitude 1.5mm 10... 50Hz (2hr X, Y,Z respectively)
Impact resistance	500m/s ² (50G)3 times X,Y,Z respectively

Wiring:

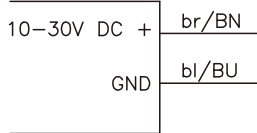


Fig.1

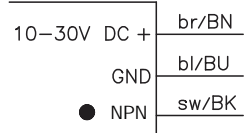


Fig.3

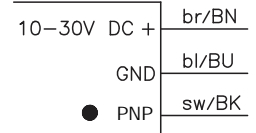


Fig.5

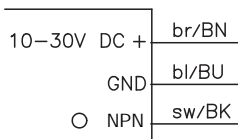


Fig.2

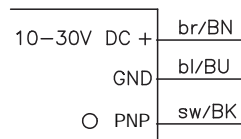
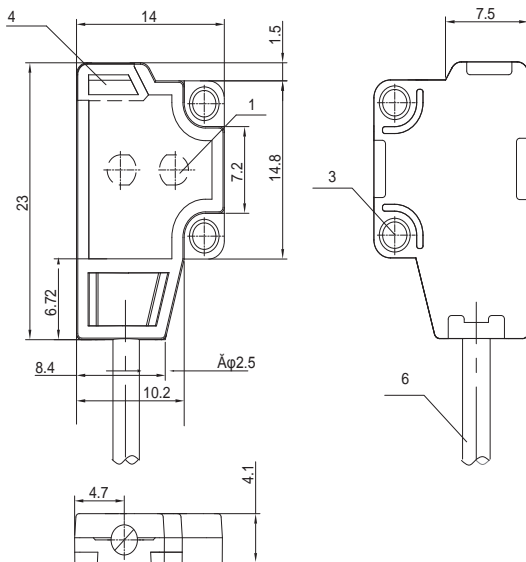


Fig.4

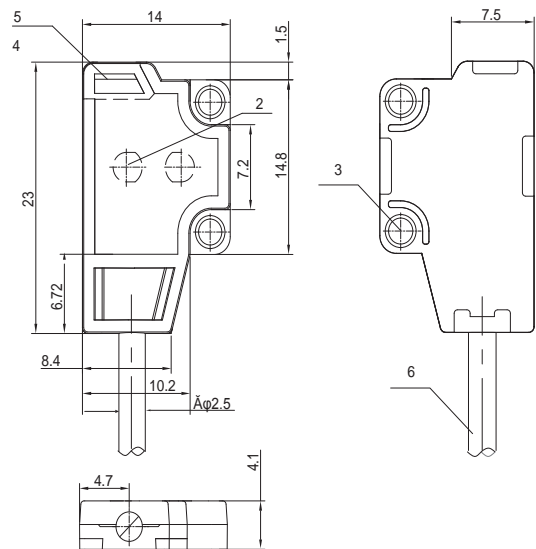
Dimensions:

Front opposed:

Emitter:



Receiver:



1	Emitter optic axis
2	Receiver optic axis
3	Mounting hole $\phi 2\text{mm}$
4	Green LED: power on
5	Red LED: on/off
6	Connection: 2m cable

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