Leuze

Retro-reflective photoelectric sensor

RK46C VarOS

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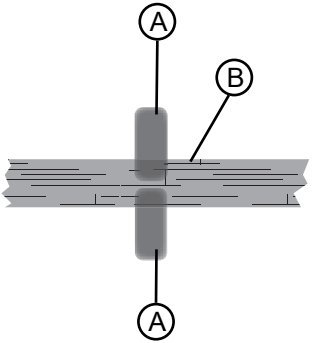

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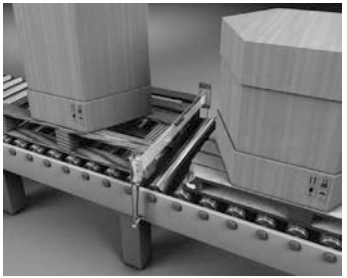

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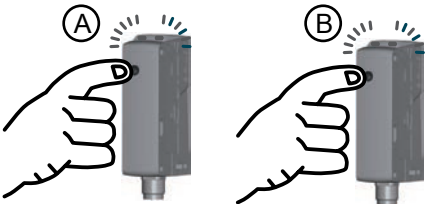

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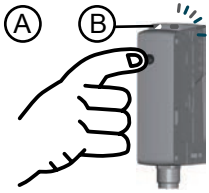

Precise alignment of sensor

The special shape and form of the light-band allows precise alignment of the sensor with the object to be detected or with the reflector.
Benefits:
- Maximum utilization of the light-band
- Reliable detection even with shocks/vibrations

1

A	Light-band
B	Object

↳ Alignment: Align the center of the light-band centrally to the object and the reflector.

2

Reliable detection of different objects and objects with cutouts and openings, for example pallets with:
- Different heights
- Protruding boards
- damage

Teach procedure for sensor

NOTICE	
	It is essential to teach the sensor before it is used for the first time! The sensor is factory-set to the maximum operating range. ↳ Before starting the teach procedure, align the light-band of the sensor with the center of the object and reflector.

3

Sensors with standard resolution (RK46C.DXL3…)

	Teach	
Sensor sensitivity	Standard	Increased
Switching behavior	Sensor switches when 28 % of light-band is covered by object.	Sensor switches when 18 % of light-band is covered by object.
Typical application	Reliable detection of pallets	Detection of containers with openings/transparent objects

Setting	Ⓐ ↳ Clear light path to reflector. ↳ Press teach button (2 to 7 s) until both LEDs (green/yellow) flash synchronously. ↳ Release teach button.	Ⓑ ↳ Clear light path to reflector. ↳ Press teach button (7 to 12 s) until both LEDs (green/yellow) flash alternately. ↳ Release teach button.
Acknowledgment	Teach successful: Both LEDs (green/yellow) remain lit.	
	Teach not successful: Yellow LED flashes. Repeat teach procedure.	

Sensors with high resolution (RK46C.DXL3P2…)

	Teach	
Sensor sensitivity	Standard	Reduced
Switching behavior	Sensor switches when 11 % of light-band is covered by object.	Sensor switches when 14 % of light-band is covered by object.
Typical application	Reliable detection of objects with a diameter of ≥ 2mm	Detection of containers with openings/transparent objects
Setting	Ⓐ ↳ Clear light path to reflector. ↳ Press teach button (2 to 7 s) until both LEDs (green/yellow) flash synchronously. ↳ Release teach button.	Ⓑ ↳ Clear light path to reflector. ↳ Press teach button (7 to 12 s) until both LEDs (green/yellow) flash alternately. ↳ Release teach button.
Acknowledgment	Teach successful: Both LEDs (green/yellow) remain lit.	
	Teach not successful: Yellow LED flashes. Repeat teach procedure.	

Easy tune – Fine adjustment of sensor sensitivity (switching threshold)

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Easy tune allows you to adjust the sensor sensitivity in small steps using the teach button during normal operation.

Increase sensitivity (reduce switching threshold)	↳ Press teach button briefly (2 ms … 200 ms). ⇨ The sensitivity is increased slightly and switching threshold is reduced slightly.	Ⓐ The sensor confirms button actuation by brief illumination (1x flash) of both LEDs (green/yellow).
Reduce sensitivity (increase switching threshold)	↳ Press and hold down teach button (200 ms … 2 s). ⇨ The sensitivity is reduced slightly and switching threshold is increased slightly.	

If the upper or lower end of the adjustment range is reached, both LEDs flash at a much higher frequency.

Light/dark switching – Adjustment of switching behavior of switching outputs

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Light/dark switching	The yellow LED indicates the current setting of the switching outputs. ON = OUT 1 light switching output, OUT 2 dark switching output OFF = OUT 1 dark switching output, OUT 2 light switching output ↳ Press teach button (> 12 s) until green LED flashes. ↳ Release teach button. ⇨ Switchover is complete.	Ⓐ B: Yellow LED