

RK 53E-P/31

Radar motion detector

RK 53E-P/31

with terminal compartment

CE



- ◆ **Microprocessor-controlled radar motion detector, specially for the external/ door areas**
- ◆ **Selectable vehicle / personnel detection**
- ◆ **Detection of direction of motion**
- ◆ **Increased field sharpness**
- ◆ **Resistant to environmental influence**
- ◆ **Mounting bracket included in delivery**

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General specifications

Effective detection range	max. 20 m
Detection field	min. 2000 mm x 3000 mm max. 2000 mm x 5000 mm for a mounting height of 3000 mm
Approvals	BZT approved, no postal fee
Marking	CE approval

Indicators/operating means

Function display	LED red: illuminates upon detection
Operating elements	Setting for off-delay, setting for sensitivity, 5-pin DIP switch for direction detection mode, forward/backward, relay normally open/normally closed, digital filter, vehicle/person detection

Electrical specifications

Operating voltage	12 ... 24 V AC +15 % / 12 ... 30 V DC
No-load supply current I_0	approx. 70 mA

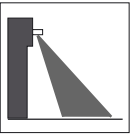
Output

Switching type	Normally closed/normally open
Signal output	Relay, 1 alternator
Switching voltage	42 VA
Switching current	1 A AC/DC

Mechanical specifications

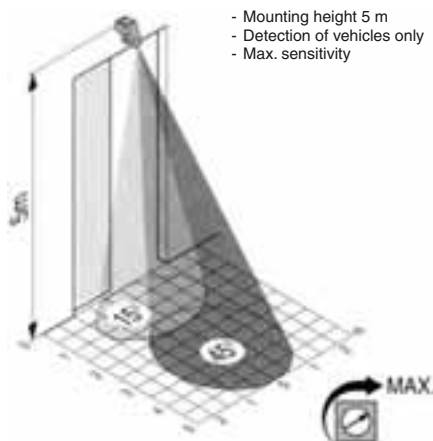
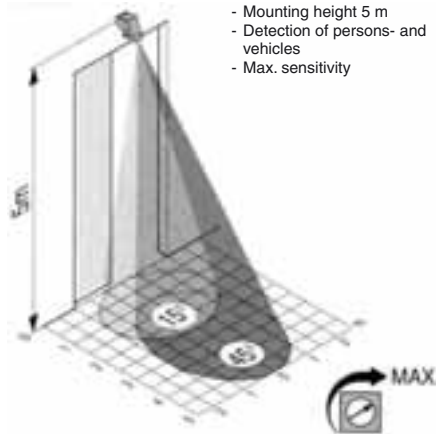
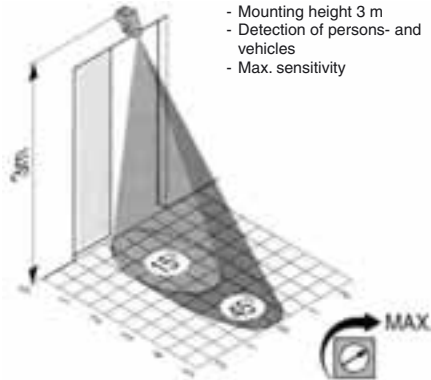
Mounting height	max. 6
Protection degree	IP65
Connection	screw terminal, 5-pin
Material	
Housing	aluminium and polycarbonate
Mass	1000 g

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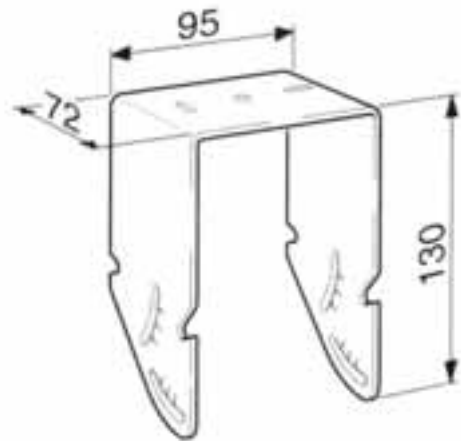
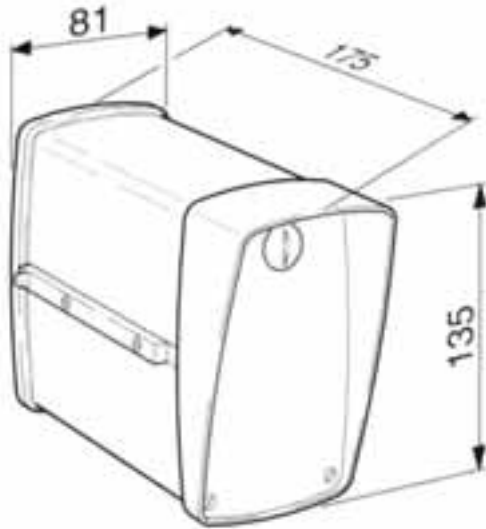


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Curves/Diagrams

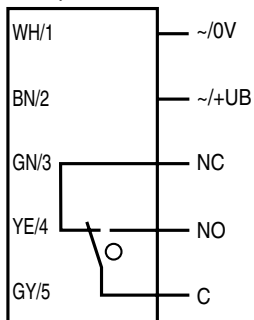


Dimensions



Electrical connection

Option:



○ = light on, ● = dark on

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Additional Information

Function

Radar Motion Detectors basically work on microwave technology. Within the defined detection zone, movements of at least 10cm/s (per- sons and/or objects such as shopping trolleys, vehicles etc.) are detected. Persons and/or objects, however, that are not moving are also not detected.

The motion detector RK 53E-P is an intelligent, microprocessor controlled opening sensor for all automatic door and gate systems for industrial purposes.

Adjustments

Sensitivity

The response sensitivity is altered using the linearized potentiometer, i.e. the two most important variables, surface (e.g. per- sons or vehicles) and velocity (slow or fast movements) of the object in motion, can be taken into account.

OFF-delay

The OFF-delay time of the relay output can be adjusted with a potentiometer.

Switching output

The device output can be programmed as normally open (n.o.) or normally closed (n.c.) contact.

Digital filter function

Disturbing light sources (fluorescent lamps etc.) are quickly suppressed by the variable digital filter function. This filter guaran- tees that doors and gates function to an optimum.

Direction recognition

The doors can be closed up to 50% faster. Environmental awareness, energy and cost savings are not just empty promises.

Switch set to stereo:

A movement towards the detector triggers a signal.

A movement away from the detector triggers no signal.

Forward/backward

This switch influences the detection with regard to direction recognition. With the direction recognition switch set to «stereo», the direction of detection can be determined by means of the forward/backward switch.

Switch set to stereo/forward: a movement towards the detector triggers a signal.


Switch set to stereo/backward: a movement away from the detector triggers a signal.

Differentiated detection

This switch allows a differentiated detection of objects.

For the optimal distinction of vehicles and persons a minimum assembly height of 3.5 m must be kept.

Factory setting of DIP switch:

Factory setting	switch	ON	OFF
	1	passive (N.C.)	active (N.O.)
	2	digital filter	-
	3	stereo	mono
	4	backward	forward
	5	vehicles only	persons and vehicles

Installation

Wall and recessed mounting

The study and adjustable mounting bracket allows an additional simple and fast wall or recessed mounting (for mounting bracket see Dimensions).