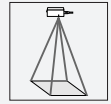


# Area scanner FLT-8-HW-2800-CLS



- Counting function with direction monitoring
- Each motion direction has an output
- Counts approx. 3 persons per seconds
- Version with Background evaluation

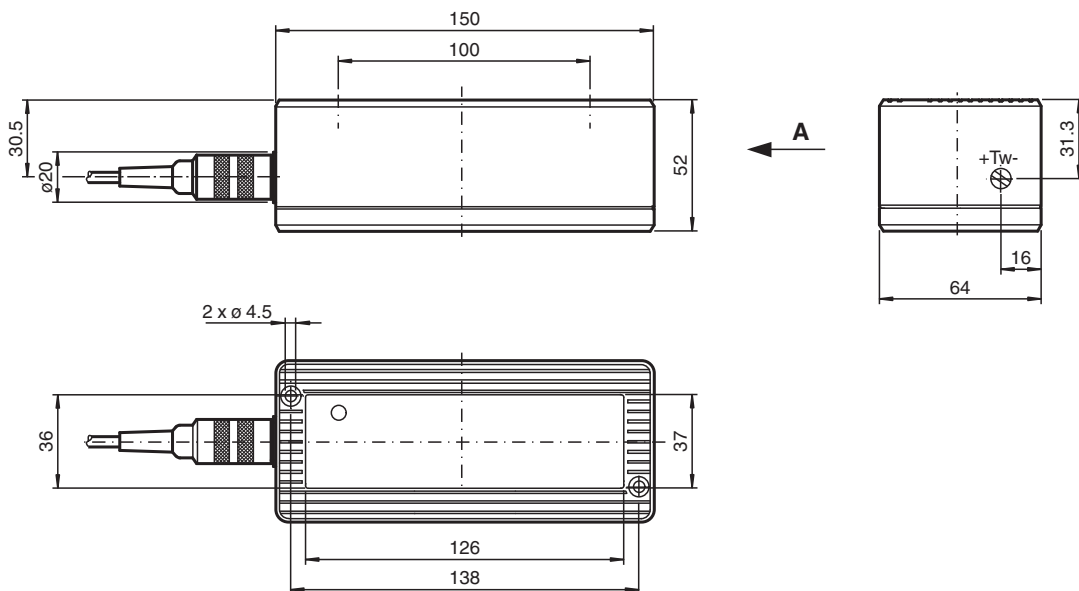
Area scanner with counting function and direction monitoring



## Function

The FLT-8-CLS series active infra-red area scanners detect people and objects within their sensing field, as well as their direction of movement. The sensors emit signals, such as those required to control revolving doors, depending on the direction in which the person traveling through the door is moving. Thanks to their clearly defined sensing field, the sensors can easily count in narrow passageways where people can only pass through one at a time. In contrast to microwave sensors, the person is detected whether they are stationary or moving; however, the signal is evaluated dynamically. The benefit of this system is that it ensures people who move very slowly or remain still during the detection process can be reliably counted.

## Dimensions



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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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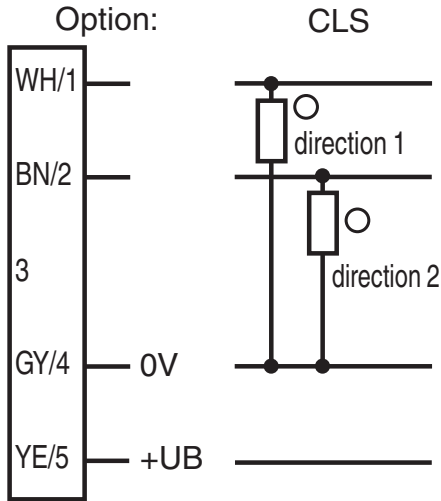
Singapore: +65 6779 9091  
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**PF** PEPPERL+FUCHS

## Technical Data

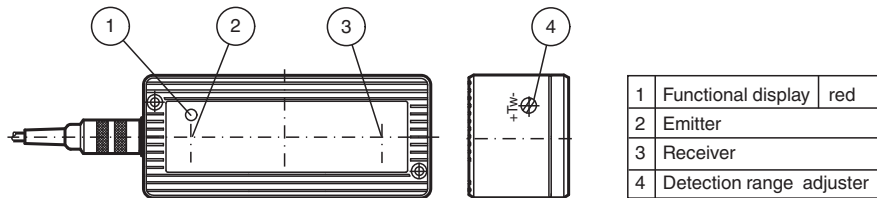
<b>General specifications</b>		
Detection field		500 mm x 500 mm at 2000 mm sensor range
Detection range min.		0 ... 1200 mm
Detection range max.		0 ... 2800 mm
Light source		4 IRED
Light type		modulated infrared light
Marking		CE
Operating mode		Background evaluation
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		470 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Indicators/operating means</b>		
Function indicator		2 LEDs red, light up in case of detection
Control elements		Sensing range adjuster
<b>Electrical specifications</b>		
Operating voltage	U <sub>B</sub>	15 ... 48 V DC
Ripple		10 %
No-load supply current	I <sub>0</sub>	60 mA
<b>Output</b>		
Switching type		light-on
Signal output		2 pulse outputs PNP, short-circuit protected, open collectors
Switching voltage		≤ 48 V DC
Switching current		≤ 200 mA
Switching frequency	f	3 Hz
Response time		40 ms at a remission level of 6 % 10 ms at a remission level of 18 %
De-energized delay	t <sub>off</sub>	150 ms
<b>Compliance with standards and directives</b>		
Standard conformity		
Product standard		IEC 60947-5-2
Emitted interference		EN 61000-6-3
Standards		EN 61000-6-2 without EN 61000-4-5, EN 61000-4-11
<b>Approvals and certificates</b>		
EAC conformity		TR CU 020/2011
<b>Ambient conditions</b>		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Storage temperature		-20 ... 75 °C (-4 ... 167 °F)
<b>Mechanical specifications</b>		
Mounting height		max. 2800 mm
Degree of protection		IP65
Connection		Connector, Binder series 581, 5-pin
Material		
Housing		Makrolon GV30 black
Optical face		Glass, red
Mass		350 g
<b>General information</b>		
Scope of delivery		2 m Connecting cable

**Connection Assignment**



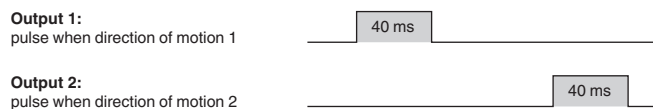
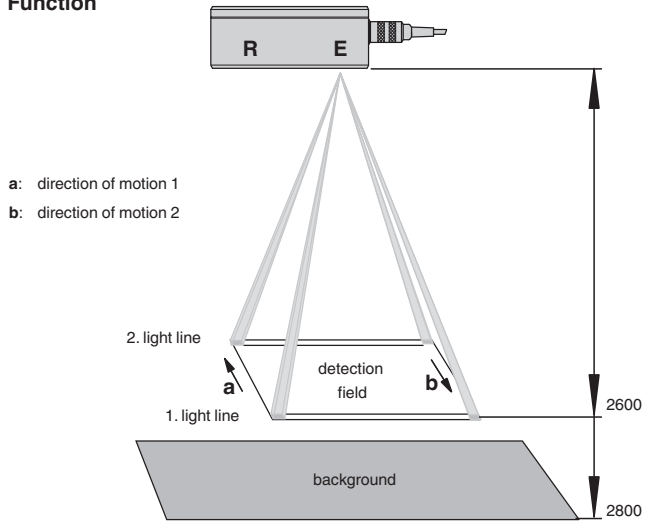
○ = Light on  
● = Dark on

**Assembly**



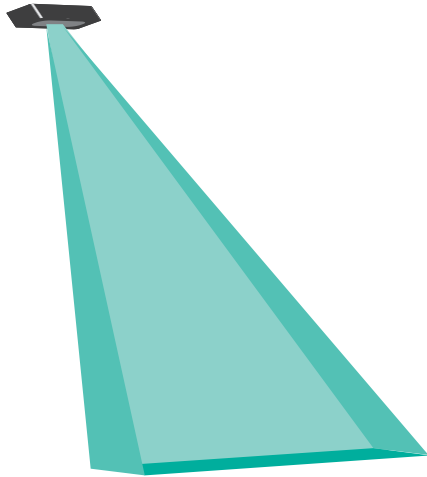
**Characteristic Curve**

**Function**




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## Application



## Accessories

	<b>Montageplatte FLT</b>	Mounting plate for FLT-8 series sensors
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## Function Principle

The FLT-8-HW-2800-CLS counting sensor is able to detect persons and objects and their direction of motion within its scanning area. On the scanned level which can be set by the operator and should be optimal at 20 cm above ground, it generates a clearly defined three-dimensional scanning area. For this, the light is focused from four transmitter diodes into the scanned level. Two light bundles each are united to form one light line. At the moment a person enters the scanning area, one or two of a total of four light bundles are first reflected by the person. Before leaving the scanning area, the person reflects again at least on light bundle. The motion signal is determined from the order in which the person cuts the light lines. So in contrast to radar motion detectors, the persons are captured statically; the signal evaluation, however, is effected dynamically. Only in case both light lines are cut, one counting operation is completed and a 40 ms pulse is issued. This method offers the advantage that even persons who move very slowly or stop during the detection are counted safely. Depending on the direction of motion, the counts are issued at two PNP outputs.

The scanner function is displayed by two red LED which can be observed through the front disc. Each of the LED is assigned to one light line.

## Application

- Counts people in small passageway areas with a counting accuracy of up to 95%