



## BHR/A

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Motion/brightness sensor with infrared sensor and photo-diode for indoors

Measuring size: brightness, motion

Output: 0-10 V, Relay

Highlights: 3 measurement ranges, selectable mode brightness-dependent movement detection



### Description

The motion and brightness sensor BHR/A registers movements over a scope of 360° with a coverage of approx. 10 m and, in addition, the brightness 0-20 kLux using an infrared sensor/photo-diode. 3 different measuring ranges for the brightness measurement can be selected (0-0.5 kLux, 0-1 kLux, 0-20 kLux) which can be switched, according to requirements, by the innovative DIP switching technology. In the event of movement a relay contact, whose retention time can be switched freely between 5 second and 15 minutes using a 270° potentiometer, is switched. The transducer converts the brightness measured into a linear output signal 0-10 V. Alternatively a setting can be made on the device so that the motion detection is done depending on the measured brightness (light guided motion detection). The desired light threshold is at any value using an offset controller, The room housing in modern design is specially designed for indoor use. The motion and brightness sensor is optimally suited for control processes, such as e.g. temperature or light control in offices.



## Technical Specifications

Measuring principle	alteration of position from persons and subjects with an temperature difference of > 3 K to the sensor
Measurement range brightness	0-0,5 kLux, 0-1 kLux, 0-20 kLux
Measurement range motion	motion yes/no, apex angle 90°/110° on 360° range, reach 10 m
Accuracy	±10% FS (20°C)
Temperature dependency	±5% FS / 10 K
Response time (t90)	< 1 s
Linearity inaccuracy	< ±5% final value
Offset	±10% from the selected measuring range by 270° potentiometer
Sensor	Motion: infrared sensor, Brightness: photodiode
Sensor protection	mounted inside housing
Running-in time	< 3 s
Supply voltage	24 V AC/DC (±5%)
Current consumption	typ. 25 mA at 24 V DC
Analogue output 0-10 V	3-wire connection
Alarm output	1 x potential-free change-over contact, 48 V, 1 A
Holding time	adjustable from 5 sec. up to 15 min. by 270° potentiometer
Threshold	threshold for brightness-dependent motion detection adjustable by 270° potentiometer
Electrical connection	screw terminals max. 1,5 mm <sup>2</sup>
Housing	ABS polyman, colour signal white like RAL 9003
Dimensions	Housing: L 82 x W 82 x H 25 mm
Protection type	IP30
Protection class	III
Working range r.H.	0...98% r.H. in contaminant-free, non-condensing air
Working temperature	0...+50°C
Storage temperature	-20...+50°C
Installation	on-wall or on flush-mounted box
Approvals	CE, EAC, RoHS



## Variants

Article Number			
Brightness (preset)	Movement	Output brightness	Output movement

  

BHR/A-UR			
0-1 kLux	yes/no	0-10 V	change-over contact

## Accessories

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FS9510

Table stand for room housing



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motrona AX350

AX350: touchMATRIX® Process Indicator with two 16 bit Analog Inputs



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motrona AX020

AX020: Process Indicator for Analog Signals





### Dimensional Drawing

