



### Model Number

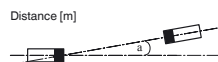
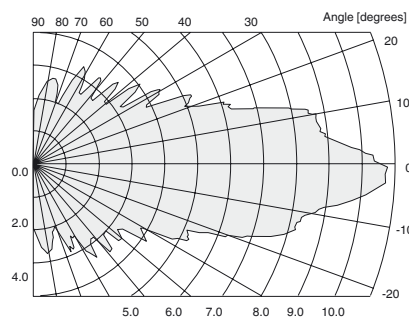
UBE6000+U1+SA2

### Features

- High switching frequency
- Complementary outputs
- Absolute polarity reversal protection
- Adjustable sensitivity

### Diagrams

#### Characteristic response curves



### Technical data

#### General specifications

Sensing range	0 ... 6000 mm
Operating range	0 ... 6000 mm
Reference target	receiver
Transducer frequency	approx. 130 kHz

#### Indicators/operating means

LED green	Emitter: "Power on" mains ON Receiver: "Power on" mains ON
LED yellow	switching state (receiver only)
LED red	LED on continuously: strong signal LED 2 Hz flashing: multiple reflections

#### Electrical specifications

Operating voltage $U_B$	20 ... 30 V DC, ripple 10 % <sub>SS</sub>
Power consumption $P_0$	Emitter: $\leq 1.5$ W Receiver: $\leq 1$ W

#### Output

Output type	complementary 1 switch output PNP, NO 1 switch output PNP, NC
Rated operating current $I_e$	200 mA, short-circuit/overload protected
Voltage drop $U_d$	Receiver: $U_B - 3$ V
Switching frequency $f$	$\leq 30$ Hz

#### Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

#### Mechanical specifications

Connection type	screw terminals
Core cross-section	$\leq 2.5$ mm <sup>2</sup>
Protection degree	IP65
Material	
Housing	PBT
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Mass	180 g each sensor

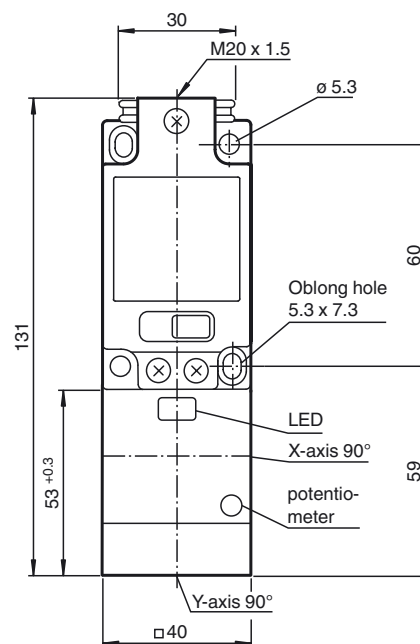
#### Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

#### Approvals and certificates

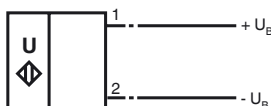
UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose

### Dimensions



## Electrical Connection

Standard symbol / Connection:  
Emitter



## Accessories

### MH 04-2681F

Mounting aid for VariKont, +U1+ and +U9\*

### Description of the sensor function

This system consists of one emitter and one receiver, which are operating independently of each other.

For the handling of the wide dynamic range the sensitivity of the receiver can be adjusted by means of a built-in potentiometer. The red LED can be used as adjustment aid.

### System adjustment

Mount emitter and receiver in the desired distance. The detection area has to be unobstructed. Switch on supply voltage and turn potentiometer counter-clockwise until the red LED lights up permanently (strong signal). In case of short distance application, it may happen, that the red LED flashes at a frequency of approx. 2 Hz caused by multi sound reflections between the sensors transducers. In that case, turn the potentiometer clockwise, until the red LED goes off.

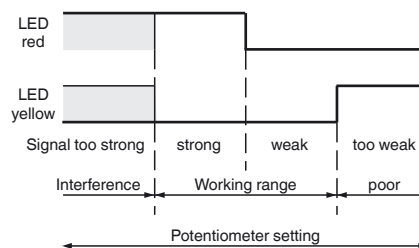
Make sure, that the receiver's output is not activated (yellow LED off) when the detection area is unobstructed.

In the strong working range, the system is highly resistant against any interference. Only large objects can be detected.

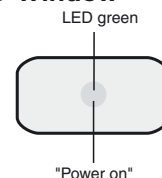
In the weak working range the system's resistance against interference is decreased, but the system is highly sensitive even to detect small objects.

## Additional Information

### Indicating/operating means



### LED-Window



### LED-Window-Receiver

