

## UY210102

### ULTRASONIC SENSORS • THROUGH-BEAM SENSORS

Ultrasonic sensors are non-contact and wear-free position switches which can also be used under rough environmental conditions. A key advantage of these devices lies in the fact that the material and the surface characteristics of the objects to be detected can be almost anything. Solids, liquids, grainy materials and powdery materials can be identified without the shape or the color of the object having any influence to the measured result. In addition, the ability to detect transparent materials such as films and fluids is of particular importance. The shape and color of the objects do not influence the result of the detection. The capability to detect transparent films or liquids is also of special importance. Ultrasonic sensors are used for distance measurement (e.g. detection of diameters, loop control), for fill level detection (e.g. silo detection), for positioning and presence detection (e.g. glass pane positioning, film tear check, glass bottle detection)



#### MECHANICAL DATA

Ambient temperature (MAX)	60 °C
Ambient temperature (MIN)	-15 °C
Degree of protection (IP)	IP67
Housing design	Cuboid
Housing material	Plastic
Housing material, detail	Plastic
Sensor height	30 mm
Sensor length	12 mm
Sensor width	20 mm

#### ELECTRICAL DATA

Carrier frequency	300 kHz
Max. output current	500 mA
Measuring range length (MAX)	300 mm
Measuring range length (MIN)	300 mm
No-load current	40 mA
Response time	1 ms
Response/decay time	1 ms
Short-circuit-proof	Yes
Sound outlet	Lateral
Supply voltage (MAX)	30 V
Supply voltage (MIN)	18 V
Switching frequency	150 Hz
Synchronization possible	No
Type of electrical connection	Cable
Type of switching function	Normally open contact (NO)
Type of switching output	PNP
Voltage type	DC

## ELECTRICAL DATA

With LED display

Yes

## OTHER DATA

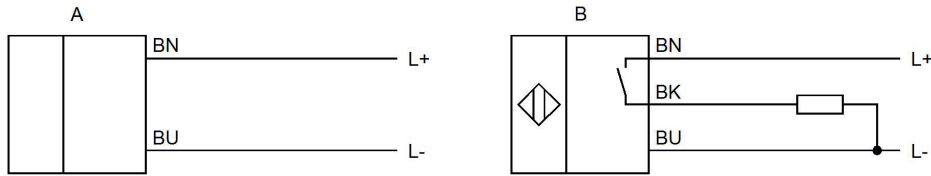
Object detection on conveyor systems

Yes

Version

Through-beam sensors

## CONNECTION

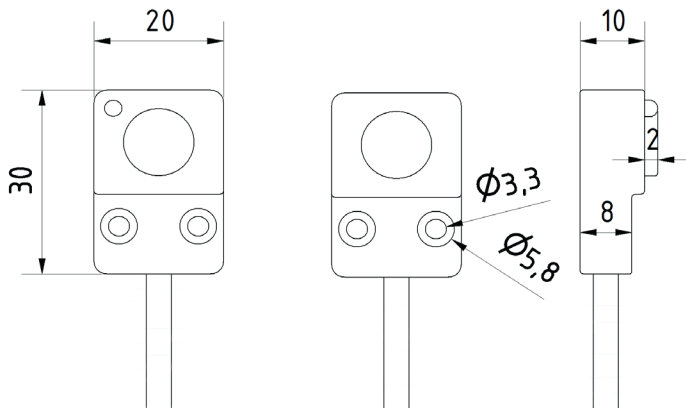


**Colors:** A: BN (brown), BU (blue)

B: BN (brown), BU (blue), BK (black) **Functions:** A: BN = L+, BU = L-

B: BN = L+, BU = L-, BK = PNP NO

## DIMENSIONAL DRAWING



## INSTALLATION



Mounting / Installation may only be carried out by a qualified electrician!

## DISPOSAL



## SAFETY WARNINGS

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information!

Never use these devices in applications where the safety of a person depends on their functionality.