

## UT139570

### Ultrasonic sensors • Pushbuttons

sensor ultrasonic, diffuse-reflection sensor, 84x12x12mm, Sn: 20-200, 18-30V DC, 1x PNP/NPN Programmable/configurable, IO-Link, Connector M8 4pin, IP67, Aluminum Anodised, Teach-In, With LED display, ultrasonic cone Lateral



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)

#### Electrical features

|   |                           |
|---|---------------------------|
| Response/decay time                           | 10ms                      |
| Number of switching outputs                   | 1                         |
| Display                                       | LED display               |
| Resolution                                    | 1mm                       |
| Type of switching function                    | Programmable/configurable |
| Type of electrical connection                 | Connector M8              |
| Type of switching output                      | PNP/NPN                   |
| Rated switching current                       | 150mA                     |
| Readiness delay                               | 300ms                     |
| Setting procedure                             | Teach-In                  |
| Short-circuit protection                      | Yes                       |
| No-load current                               | 40mA                      |
| Number of pins                                | 4                         |
| Sound outlet                                  | Lateral                   |
| Switching distance                            | 20 - 200mm                |
| Switching frequency                           | 20Hz                      |
| Protection class                              | III                       |
| Voltage drop                                  | 2V                        |
| Temperature drift over entire measuring range | 0.2%                      |
| Carrier frequency                             | 400kHz                    |
| Reverse polarity protection                   | Yes                       |
| Absolute repeat accuracy                      | 0.5mm                     |
| Operating voltage (DC)                        | 18 - 30V                  |

## Mechanical features

|                           |               |
|---------------------------|---------------|
| Design                    | Cuboid        |
| Width                     | 12mm          |
| Height                    | 84mm          |
| Length                    | 12mm          |
| Mounting distance         | 60mm          |
| Surface                   | teflon coated |
| Degree of protection (IP) | IP67          |
| Housing material          | Aluminum      |
| Diameter detection        | Yes           |
| Ambient temperature       | -25 - 70°C    |

## Other features

|                                      |                         |
|--------------------------------------|-------------------------|
| Operating frequency                  | 400kHz                  |
| Level detection                      | Yes                     |
| Object detection on conveyor systems | Yes                     |
| Reference medium / object            | Measuring plate 20x20mm |
| Ambient temperature                  | -25 - 70°C              |

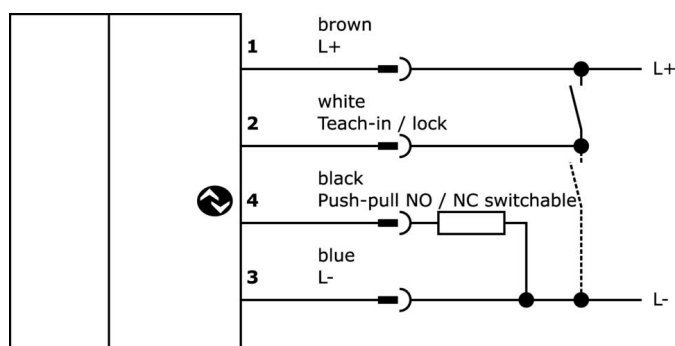
## Classification

|        |                           |
|--------|---------------------------|
| ETIM 8 | EC001849 Ultrasonic probe |
|--------|---------------------------|

## More

|                       |                        |
|-----------------------|------------------------|
| IPF Product Group     | 250 ultrasonic sensors |
| packaging dimensions  | 160 x 150 x 13 mm      |
| gross weight          | 38 g                   |
| Customs tariff number | 85365019               |
| WEEE number           | 40951076               |
| Reach-compliant       | Yes                    |
| RoHS-compliant        | Yes                    |

## Connection



## 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.

For suitable connection and mounting accessories, please refer to our website [www.ipf-electronic.com](http://www.ipf-electronic.com).

Any software, drivers or IODD files that may be required to operate your device can be downloaded free of charge from our homepage: [www.ipf-electronic.com](http://www.ipf-electronic.com)

### Dimensional drawing

