



extract from our online catalogue:

***mic-101/D/HV/M30E***

current to: 2026-10-09



## **mic**

These completely metal mic sensors are available in two device designs with five different detection ranges.

### **Highlights**

### **Basics**

- > M30 housing and M12 circular connector in metal design > for harsh usage conditions
- > Automatic synchronisation > for simultaneous operation of up to ten sensors in close quarters
- > UL Listed to Canadian and US safety standards
- > 1 switching output in pnp variant
- > Analogue output 4–20 mA and 0–10 V > with automatic switching between current and voltage outputs
- > 5 detection ranges with a measurement range of 30 mm to 8 m
- > microsonic Teach-in on pin 5
- > 0.18 mm to 2.4 mm resolution
- > Temperature compensation
- > 9–30 V operating voltage
- > LinkControl > for configuration of sensors from a PC

## ***This very solid construction***

is fully made of metal from the M30 housing to the M12 circular connector. Since the sensors do not contain any operating elements or signal lamps, they are especially suited for application under extreme ambient conditions with high mechanical loads for housing and plug connector. The sensors are available in five detection ranges and cover a measuring range of 30 mm up to 8 m.



*M12 metal circular connector (left) and operation under rough conditions (right)*

## Two output levels

are available for all five detection ranges:



1 pnp switching output



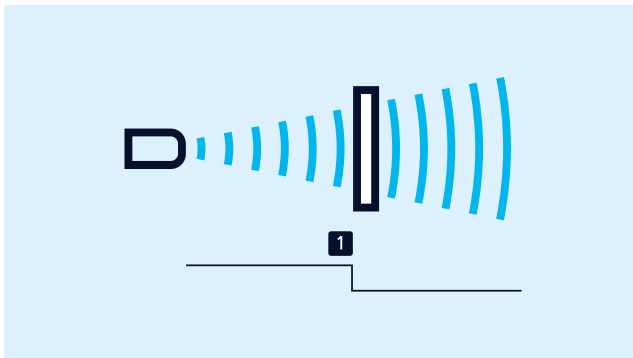
1 analogue output 4–20 mA and 0–10 V

## Sensors with switching output have three operating modes:

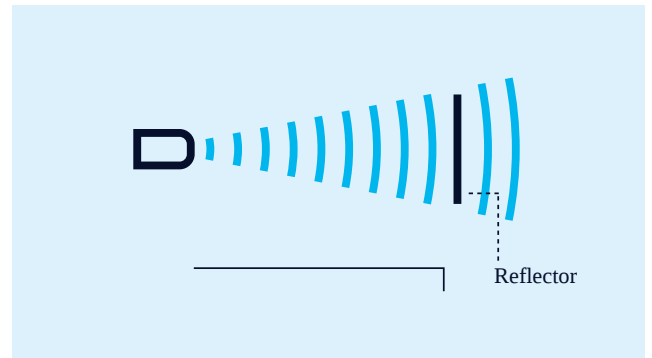
- Single switching point
- Two-way reflective barrier
- Window mode

### Teach-in of a single switching point

- Place object to be detected (1) at the desired distance
- Apply +U<sub>B</sub> to pin 5 for about 3 seconds
- Then apply +U<sub>B</sub> to pin 5 again for about 1 second



Teach-in of a switching point



Teach-in of a two-way reflective barrier

### Teach-in of a two-way reflective barrier

with a fixed reflector

- Apply +U<sub>B</sub> to pin 5 for about 3 seconds
- Then apply +U<sub>B</sub> to pin 5 again for about 10 seconds

### **For configuration of a window**

- Place object at the near edge of the window (1)
- Apply  $+U_B$  to pin 5 for about 3 seconds
- Then move the object to the far edge of the window (2)
- Then apply  $+U_B$  to pin 5 again for about 1 second

### **NCC/NOC**

and rising/falling analogue characteristic curve can also be set via pin 5.



*Teach-in of an analogue characteristic or a window with two switching points*



*Synchronisation using pin 5*

### **Synchronisation**

permits the simultaneous use of multiple mic sensors in an application. To avoid mutual interference, the sensors can be synchronised with one another. To do this, all the sensors are electrically connected on pin 5.

If more than 10 sensors need to be synchronised, this can be carried out with the SyncBox1, which is available as an accessory.

### **LinkControl**

optionally permits the extensive parameterisation of mic sensors. The LCA-2 LinkControl adapter, which is available as an accessory, can be used to connect mic sensors to the PC.



*Sensor connected to the PC via LCA-2 for programming*

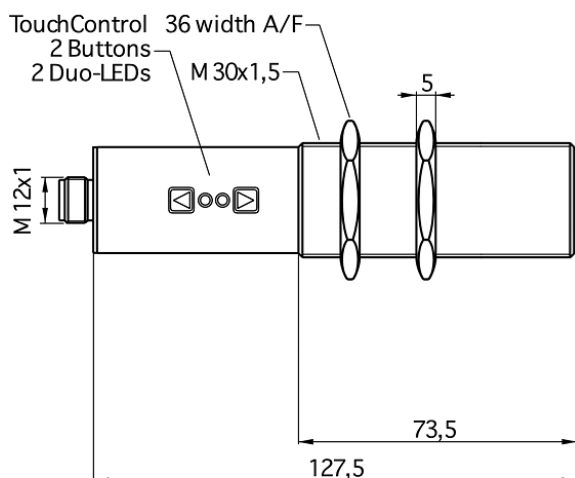
## ***You have special requirements?***

Nothing as simple as that.

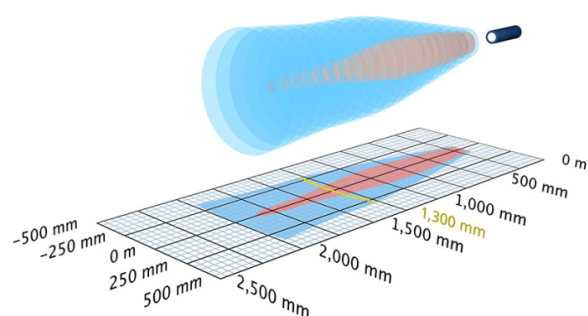
With us, you can easily find an individual solution. Let us talk about your application: +49 231 97 51 51-82.

# mic-101/D/HV/M30E

## scale drawing



## detection zone



Successor model available

mic+130/D/TC/E



1 x pnp



design

cylindrical M30

operating mode

proximity switch/reflective mode  
reflective barrier  
window mode

particularities

archive sensor  
stainless steel version

## Ultrasonic-Specific

means of measurement

echo propagation time measurement

transducer frequency

200 kHz

blind zone

200 mm

operating range

1,300 mm

max. range

2,000 mm

resolution

0,36 mm

reproducibility

± 0,15 %

accuracy

± 1 % (temperature drift internally compensated)

## Electrical Data

operating voltage  $U_B$

12 - 30 V d.c., reverse polarity protection

voltage ripple

± 10 %

no-load current consumption

≤ 70 mA

type of connection

5-pin M12 initiator plug

### outputs

|                             |                                                                                                                |
|-----------------------------|----------------------------------------------------------------------------------------------------------------|
| output 1                    | switching output<br>pnp: $I_{\max} = 500 \text{ mA}$ ( $U_B - 2V$ )<br>NOC/NCC adjustable, short-circuit-proof |
| switching hysteresis        | 20 mm                                                                                                          |
| switching frequency         | 6 Hz                                                                                                           |
| response delay              | 110 ms                                                                                                         |
| delay prior to availability | < 1,500 ms                                                                                                     |

### Inputs

|         |           |
|---------|-----------|
| input 1 | com input |
|---------|-----------|

### housing

|                                 |                                                    |
|---------------------------------|----------------------------------------------------|
| material                        | stainless steel, plastic parts: PBT, TPU           |
| ultrasonic transducer           | polyurethane foam, epoxy resin with glass contents |
| class of protection to EN 60529 | IP 65                                              |
| operating temperature           | -20°C to +70°C                                     |
| storage temperature             | -40°C to +85°C                                     |
| weight                          | 210 g                                              |
| further versions                | mic-101/D/HV/M30                                   |

### Technical Features/Characteristics

|                          |                                                                               |
|--------------------------|-------------------------------------------------------------------------------|
| temperature compensation | yes                                                                           |
| controls                 | 2 push-buttons + LED display (TouchControl)                                   |
| scope for settings       | Teach-in and numeric configuration via TouchControl<br>LCA-2 with LinkControl |
| indicators               | 2 x three-colour LED                                                          |

### Accessories

|                      |                                                          |
|----------------------|----------------------------------------------------------|
| deployable accessory | KST5A-2/M12<br>KST5A-5/M12<br>KST5G-2/M12<br>KST5G-5/M12 |
|----------------------|----------------------------------------------------------|

### pin assignment

