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extract from our online catalogue:

# *wms-101/RT/HV/M30/MS*

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# wms

wms sensors are ideal for customer-driven signal evaluation.

## Highlights

## Basics

- Trigger input › for control of the ultrasonic transmitter
- Echo output › for customer-provided evaluation in the controller
- 1 echo output › with a load up to 10 mA
- 5 detection ranges with a measurement range of 30 mm to 8 m
- 0.36 mm resolution
- 10–30 V operating voltage

# The wms sensors

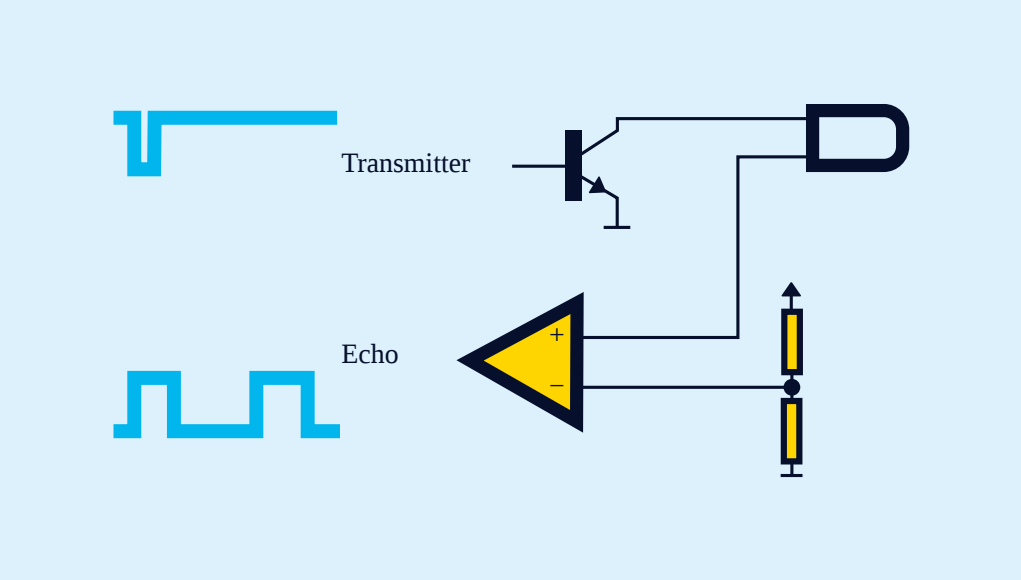
require connection to the customer's own control and signal evaluation equipment.

### wms - the inexpensive alternative

to a self-contained sensor when the sensor must be controlled by the customer's system. A microprocessor control is normally required for this.

### The »transmitter« signal input

briefly has to be set to $-U_B$ by the control unit via an open-collector circuit. As a result, an the wms sensor emits a sound pulse for the time of this signal.




*Triggering a wms sensor from the customer's control system*

### The »echo« signal output

subsequently transmits all echo signals received depending on their duration as 1 bit values (echo yes/no). This takes between 8 and 65 ms depending on the type of sensor. The positive-switched (pnp) output can be loaded with 10 mA. The computation of the distance and subsequent processing is carried out in the customer's control system.

### Our project engineers

will be happy to assist you in integrating a wms sensor into your control system.

# *You have special requirements?*

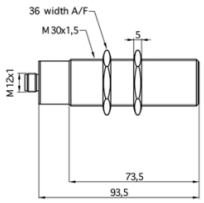
Nothing as simple as that.

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

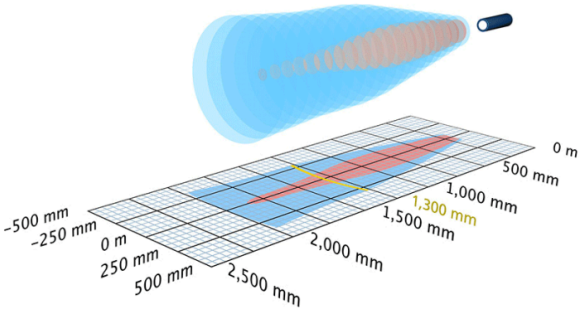
**Archivsensor**

# wms-101/RT/HV/M30/MS

## scale drawing




## detection zone




| Successor model available | wms-130/RT |
|---|---|
| TRIGGER ECHO echo output | 2,000 mm |
| design | cylindrical M30 |
| operating mode | sensor for evaluators |
| particularities | archive sensor |

## 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 |
| reproducibility | ± 0.15 % |
| accuracy | temperature drift 0.17 %/K |

## Electrical Data

| | |
|---|---|
| operating voltage $U_B$ | 10 - 30 V d.c., reverse polarity protection |
| voltage ripple | ± 10 % |
| no-load current consumption | ≤ 30 mA |
| type of connection | 4-pin M12 initiator plug |

## outputs

| | |
|---|---|
| output 1 | signal output echo<br>pnp: $I_{max}$ = 10 mA (signal output echo) |

## Inputs

| | |
|---|---|
| input 1 | signal input - transmitter |

## housing

| | |
|---|---|
| material | brass sleeve, nickel-plated, plastic parts, PBT |
| 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 | 170 g |
| further versions | wms-101/RT/HV/M30/K2 |
| further versions | stainless steel<br>cable connection (on request) |

## Technical Features/Characteristics

| | |
|---|---|
| temperature compensation | no |
| controls | no |
| scope for settings | no |
| synchronization | yes |
| multiplex | yes |
| indicators | no |

## Accessories

| | |
|---|---|
| deployable accessory | KST4A-2/M12<br>KST4A-5/M12<br>KST4G-2/M12<br>KST4G-5/M12 |

## pin assignment

