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EVERY THING ULTRA SONIC

extract from our online catalogue:

ews ultrasonic through-beam barrier

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ews

Ultrasonic through-beam barrier for contact free detection of objects.

Highlights

- Transmitter and receiver > in miniature cubic or M18 housing
- Installation-compatible with many light barriers > a true alternative for critical applications
- Up to 500 Hz switching frequency > f for fast sampling
- UL Listed > to Canadian and US safety standards

Basics

- 1 switching output in pnp variant
- Working distance between the transmitter and the receiver selectable from 10 to 2,500 mm
- Teach-in using a button
- 20-30 V operating voltage

Ultrasonic through-beam barrier ews

for contact-free detection of objects specially in the most diverse applications e.g. with bottles or plastic foils. The through-beam sensor ews is available as a cuboid miniature housing and a cylindrical M18 housing. The ews family covers a working range of 10 mm to 2,500 mm.

A through-beam barrier

consists of two constructively-identical units which are operated as a transmitter and a receiver. The two units recognize whether they are intended to work as a transmitter or a receiver via the control input. If pin 2 +UB is activated, this unit functions as a transmitter.



The functional principle ultrasonic through-beam barrier

The functional principle ultrasonic through-beam barrier

one through-beam sensor ews, set as transmitter, sends cyclic sound impulses, received by another one, set as receiver. If an object interrupts the pulses between the transmitter and the receiver, the switching output of the receiver is set.

Teach-in

The button on the top of the cubic through-beam barrier ews-15/CD allows for a convenient configuration of the response time and the output function (NOC/NCC) of the receiver. The response time and an off-delay of 6.9 ms can be set. At the through-beam barrier in the M18 housing, response time and output function can be set at Pin 2.

Two LEDs

show the operating state and the state of the switching output of the receiver.

You have special requirements?

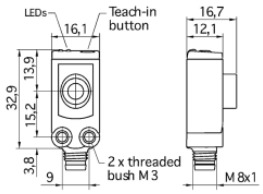
Nothing as simple as that.

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

ews-15/CD Set

scale drawing

2x



1 x pnp

design	cuboidal
operating mode	one-way barrier
working range	50 - 250 mm
particularities	Empfänger für Einweg-Ultra-schall-Schranke Sender für Einweg-Ultra-schall-Schranke kleinste quaderförmige Bau-form UL Listed

Ultrasonic-Specific

means of measurement	Transmitter-receiver pulse mode
transducer frequency	380 kHz

Electrical Data

operating voltage U_B	20 - 30 V d.c., reverse pola-rity protection
voltage ripple	± 10 %
no-load current consumption	≤ 30 mA
type of connection	4-pin M8 initiator plug

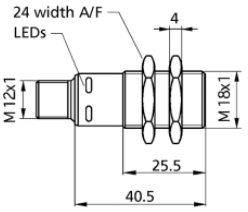
Outputs

output 1	switching output pnp: I_{max} = 200 mA (U_B-2V) NOC/NCC adjustable, short-circuit-proof
switching frequency	400 Hz, with activated filter 80 Hz
response delay	2,3 ms, bei aktiviertem Filter 6,9 ms
delay prior to availability	< 300 ms

ews-15/M18/CD Set

scale drawing

2x



1 x pnp

design	cylindrical M18
operating mode	one-way barrier
working range	10 - 150 mm
particularities	Empfänger für Einweg-Ultra-schall-Schranke Sender für Einweg-Ultra-schall-Schranke UL Listed

Ultrasonic-Specific

means of measurement	Transmitter-receiver pulse mode
transducer frequency	380 kHz

Electrical Data

operating voltage U_B	10 - 30 V d.c., reverse pola-rity protection
voltage ripple	± 10 %
no-load current consumption	as emitter ≤ 45 mA, as recei-ver ≤ 25 mA
type of connection	4-pin M12 initiator plug

Outputs

output 1	switching output pnp: I_{max} = 200 mA (U_B-2V) NOC/NCC adjustable, short-circuit-proof
switching frequency	500 Hz, with activated filter 125 Hz
response delay	2 ms, with activated filter 6 ms
delay prior to availability	< 300 ms

Inputs

input 1	control input

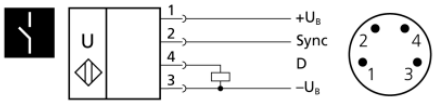
Housing

material	ABS
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	2 × 12 g
further versions	single transmitter/receiver

Technical Features/Characteristics

controls	1 push-button
scope for settings	Teach-in via push-button
indicators	LED green (transmitter and receiver: working), LED yellow (only receiver: switch status)

pin assignment



Inputs

input 1	control input Teach-in input

Housing

material	ABS
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	2 × 15 g
further versions	single transmitter/receiver

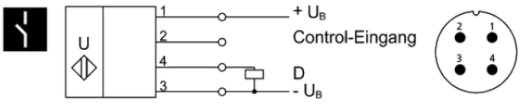
Technical Features/Characteristics

controls	control input
scope for settings	Teach-in
indicators	LED green (transmitter and receiver: working), LED yellow (only receiver: switch status)

Accessories

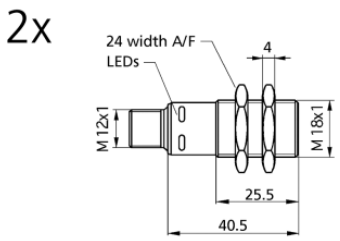
deployable accessory	KST4G-2/M12 KST4G-5/M12 KST4A-2/M12 KST4A-5/M12

pin assignment



ews-25/M18/CD Set

scale drawing



1 x pnp

design	cylindrical M18
operating mode	one-way barrier
working range	10 - 400 mm
particularities	Empfänger für Einweg-Ultra-schall-Schranke Sender für Einweg-Ultra-schall-Schranke UL Listed

Ultrasonic-Specific

means of measurement	Transmitter-receiver pulse mode
transducer frequency	320 kHz

Electrical Data

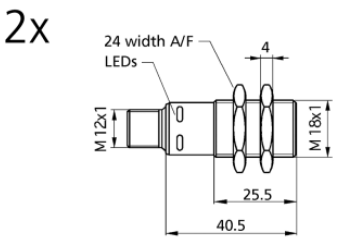
operating voltage U_B	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	as emitter ≤ 45 mA, as receiver ≤ 25 mA
type of connection	4-pin M12 initiator plug

Outputs

output 1	switching output pnp: I_{max} = 200 mA (U_B-2V) NOC/NCC adjustable, short-circuit-proof
switching frequency	500 Hz, with activated filter 125 Hz
response delay	2 ms, with activated filter 6 ms
delay prior to availability	< 300 ms

ews-100/M18/CD Set

scale drawing



1 x pnp

design	cylindrical M18
operating mode	one-way barrier
working range	100 - 2,500 mm
particularities	Empfänger für Einweg-Ultra-schall-Schranke Sender für Einweg-Ultra-schall-Schranke UL Listed

Ultrasonic-Specific

means of measurement	Transmitter-receiver pulse mode
transducer frequency	200 kHz

Electrical Data

operating voltage U_B	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	as emitter ≤ 50 mA, as receiver ≤ 25 mA
type of connection	4-pin M12 initiator plug

Outputs

output 1	switching output pnp: I_{max} = 200 mA (U_B-2V) NOC/NCC adjustable, short-circuit-proof
switching frequency	200 Hz, with activated filter 50 Hz
response delay	5 ms, with activated filter 15 ms
delay prior to availability	< 300 ms

Inputs

input 1	control input Teach-in input

Housing

material	ABS
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	2 × 15 g
further versions	single transmitter/receiver

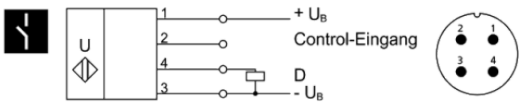
Technical Features/Characteristics

controls	control input
scope for settings	Teach-in
indicators	LED green (transmitter and receiver: working), LED yellow (only receiver: switch status)

Accessories

deployable accessory	KST4G-2/M12 KST4G-5/M12 KST4A-2/M12 KST4A-5/M12

pin assignment



Inputs

input 1	control input Teach-in input

Housing

material	ABS
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	2 × 15 g
further versions	single transmitter/receiver

Technical Features/Characteristics

controls	control input
scope for settings	Teach-in
indicators	LED green (transmitter and receiver: working), LED yellow (only receiver: switch status)

Accessories

deployable accessory	KST4G-2/M12 KST4G-5/M12 KST4A-2/M12 KST4A-5/M12

pin assignment

