microsonic

Operating Instructions

ews-15/CD

Ultrasonic one-way reflectiv barrier with one switched output

Product Description

If an object interrupts the measuring track between two ews-15/CD, one set as a transmitter and another set as a receiver, the switched output of the receiver is set.
Via the push-button, the response time and the output function of the switched output are changeable (Teach-in).
Two LEDs indicate operation and the state of the switched output of the receiver.

Notes

- The ews-15/CD is optmized for scanning thin films at an spacing of 60...110 mm between transmitter and receiver.
- With the Teach-in procedure the response time and an off-delay can be set to 5 ms.

Safety Notes

- Read the operating instructions prior to start-up.
- Connection, installation and adjustment works may only be carried out by expert personnel.
- No safety component in accordance with the EU Machine Directive.

Proper use

ews ultrasonic sensors are used for non-contact detection of objects.

Installation

- Mount two sensors ews-15/CD at the installation site (see fig. 3). Maximum torque: 0,5 Nm
- Connect the connection cables to the M8 device plugs.

		colour
1	$+U_B$	brown
3	$-U_B$	blue
4	D	black
2	Control	white

Fig. 1: Pin assignment with view onto sensor plug and colour coding of the microsonic connection cable.

- Set one ews-15/CD to function transmitter and one ews-15/CD as a receiver by correponding assignment of pin2 (see fig. 1 and 2).

assignment pin 2	operation mode
$+U_B$	transmitter
not connected	receiver

Fig. 2: Selection of operation mode.

Start-Up

- Connect the power supply.
- Carry out the setting in accordance with the diagram.

Factory Setting

- Switched output on NOC.
- Filter not active.

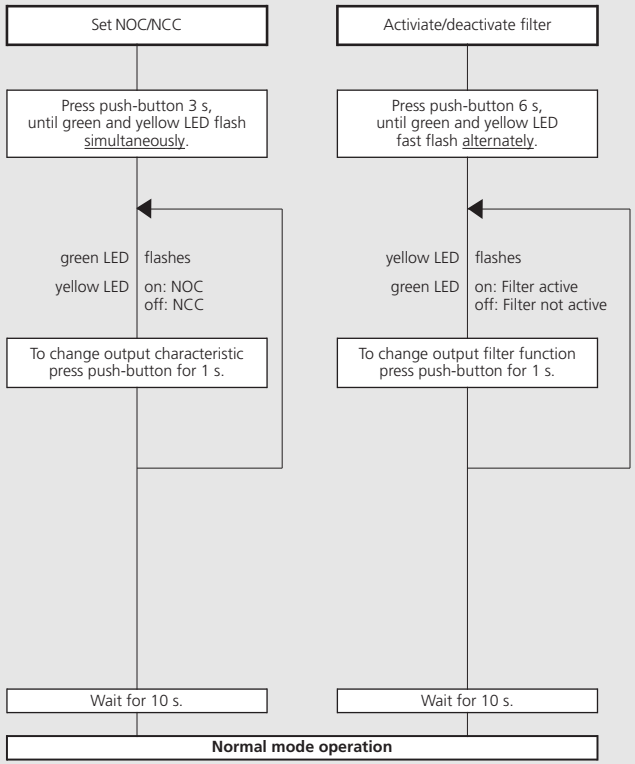
Maintenance

microsonic sensors are maintenance-free. In case of excess caked-on dirt we recommend cleaning the white sensor surface

Notes

- The ultrasonic one-way reflective barrier consists of two sensors ews-15/CD.
- In the normal operating mode, an illuminated yellow LED at the receiver signals the switched output is switched through.

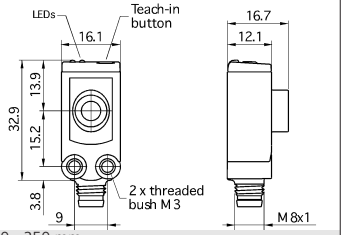
Sensor adjustment with Teach-in procedure



Technical data

ews-15/CD

1 pnp switched output



spacing transmitter - receiver	50 - 250 mm
transducer frequency	380 kHz
operating voltage U_B	20 - 30 V DC, reverse polarity protection
voltage ripple	±10 %
no-load current consumption	< 30 mA
housing	ABS
	ultrasonic transducer: polyurethane foam,
	epoxy resin with glass content
class of protection to EN 60 529	IP 67
type of connection	4-pin M8 initiator plug
controls	Teach-in push-button
indicators	LED green (transmitter and receiver: operation)
	LED yellow (only receiver: state of output)
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	8 g
switching frequency [1]	400 Hz, 80 Hz if filter active
response time [1]	2,3 ms, 6,9 ms if filter active
time delay before availability	< 300 ms
norm conformity	EN 60947-5-2
order no.	**ews-15/CD**
switched output	pnp, U_B-2 V, I_{max} = 200 mA
	switchable NOC/NCC, short-circuit-proof

1) Can be programmed with Teach-in.

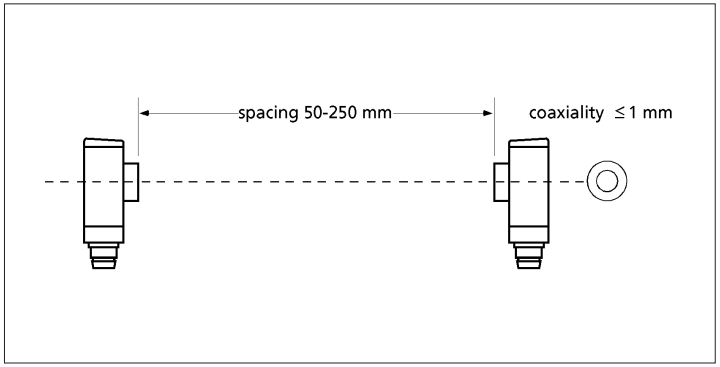


Fig. 3: Mounting of ews-15/CD

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