

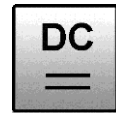
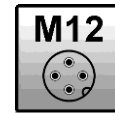
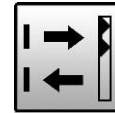
ON45E235

LED lights Signal lights

- / Stainless steel housing
- / Setting by teach-in
- / LED display with alignment-aid
- / Negative pressure of mutual interference



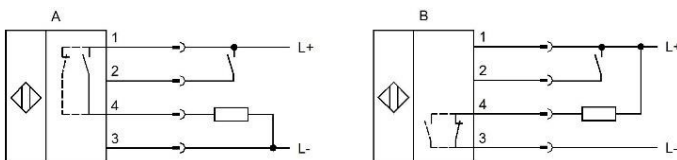
Works like a reflex light barrier - without reflector



TECHNICAL DATA

function	light barrier
Operating range	60 ... 600mm
Alignment of the optical axis	< 1°
operating voltage	10 ... 30V DIAGNOSTIC COVERAGE
Current consumption (without load)	≤ 40mA
Output current (max. load)	≤ 100mA
output signal	Push-pull, no/nc
voltage drop	≤ 3V DIAGNOSTIC COVERAGE
Response / decay time	≤ 0.49ms
Transmitting element (pulsed)	LED, red light, point-shaped
wavelength	630nm
Short-circuit protection	+
Reverse polarity protection	+
Display (operation)	green LED
Display (signal / alignment-aid)	yellow LED
Display (teach-in)	LED blue
Material (front screen)	PMMA
Material (housing)	Stainless steel 1.4404
Degree of protection (EN 60529)	IP69k
operating temperature	-20 ... +60°C
connection	M12-connector 4-pin

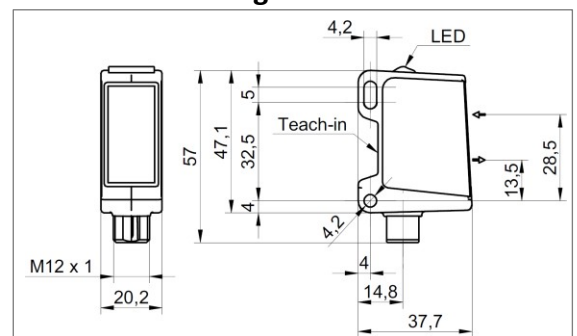
Connection



Colors: 1 = brown (bn), 2 = white (wh) 3 = blue (bu) 4 = black (bk)

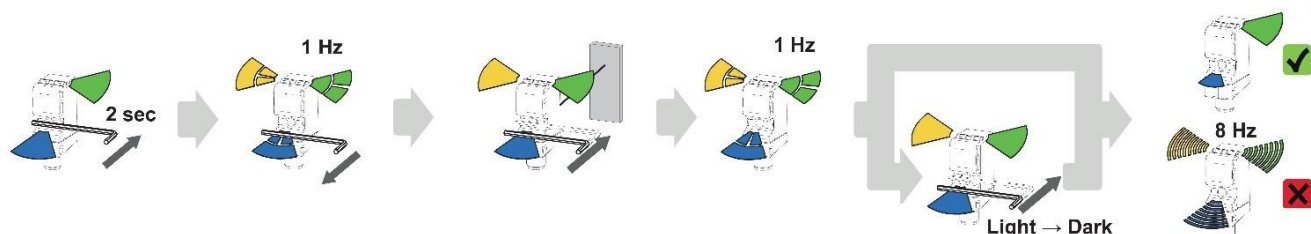
Functions: A: 1 = L+, 2 = Teach in, 3 = L-, 4 = PNP NO / NC B: 1 = L+, 2 = Teach in, 3 = L-, 4 = NPN NC / NO

Dimension drawing



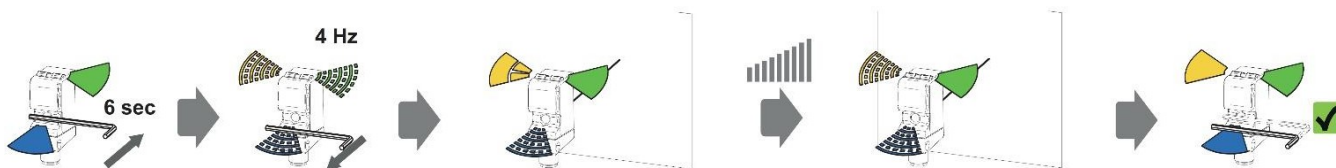
Teach-in procedure:

1. Make sure that the blue teach LED lights up.
2. Touch the blue teach LED on the back of the housing with a ferromagnetic tool for longer **than 2 seconds, but less than 4 seconds**, until all 3 LEDs flash at **1Hz**. The blue LED lights up brighter as soon as a tool is recognized.
3. Align the sensor on the reference surface (e.g. a reflective machine part) and briefly touch the blue teach LED with a ferromagnetic tool to confirm the position of the object.
4. If the sensor is to operate as normally open (output switched on when object is detected), briefly touch the blue teach LED again with a ferromagnetic tool within 4 seconds, otherwise the device will operate as normally closed (nc). During this time, all 3 LEDs flash slowly (1Hz).
5. As soon as the blue LED lights up, the teaching process is complete.
6. If all 3 LEDs flash quickly (8Hz), the teach process has failed and must be repeated.



Adjustment aid

The ON45E235 has an integrated adjustment aid to check the reflectivity of the reference surface. Touch the blue teach LED on the back of the housing with a ferromagnetic tool for 6 seconds until all 3 LEDs flash at 4Hz and then remove the tool. The yellow LED indicates the reflectivity of the reference surface by flashing. The faster it flashes, the better the reflection (1Hz = poor, 8Hz optimal). To return to normal function, briefly touch the blue teach LED again with a ferromagnetic tool.



note

The teach-in function locks 5 min after switching on. The yellow LED signals whether an object is detected and does not necessarily correspond to the status of the switching output. The teach-in process works both with a ferromagnetic tool and via pin 2 of the M12-connector (white core) by connecting it to the operating voltage (+Ub). In standard mode, connect the white core to 0V to avoid unintentional teach-in.

Note on cleaning

During each cleaning process, the maximum working temperature specified in the data sheet must be taken into account. The sensor may be cleaned with a water jet in accordance with the IP 69K guidelines. The materials used in the sensor are highly chemically resistant to a wide range of acids, bases and alcohols. It is the responsibility of the user to check the chemical resistance of the sensor to the cleaning agents used before cleaning.

Article number: **ON45E235**

Matching cable socket: e.g. **VK50L325**

Mounting kit: **AY000138**

SAFETY INSTRUCTIONS:

Before start-up, please ensure that all safety notes in the product documentation have been observed!

The application of these products is prohibited if they have a direct impact on personal safety.