

ON450521

operating distance **60 ... 600mm**

- ✓ plastic housing, compact design setting
- ✓ by Teach-In
- ✓ LED-display with setting control
- ✓ supression of reciprocal influence M12-
- ✓ connector 4-pin



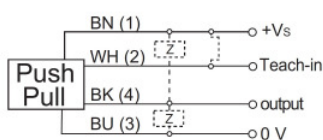
works like a retro-reflective sensor – without reflector



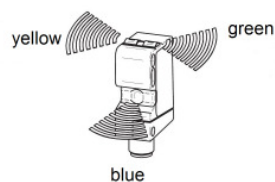
technical data

function	through-beam sensor
operating distance	60 ... 600mm
alignment optical axis	<1°
operating voltage	10 ... 30V DC
current consumption (without load)	≤ 30mA
output current (max. load)	≤ 100mA
output signal	push-pull, no/nc
voltage drop	≤ 3V DC
response time / decay time	≤ 0.49msec
sampling frequency	1kHz
transmitting element (pulsed)	LED, redlight, punctual
wavelength	630nm
short-circuit protection	+
reverse polarity protection	+
status display	LED green
display (signal) / setting control	LED yellow
display (Teach-In)	LED blue
front screen material	PMMA
housing material	plastic (ASA, MABS)
system of protection (EN 60529)	IP67
operating temperature	-25 ... +60°C
connection	M12-connector, 4-pin

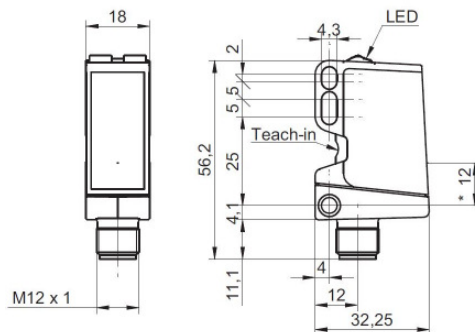
electric connection



colours of LED

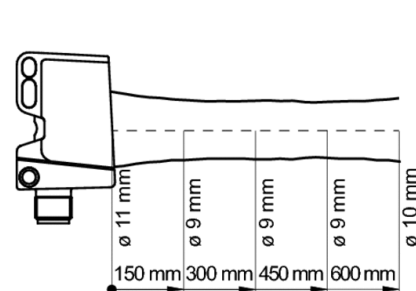


wiring diagramm



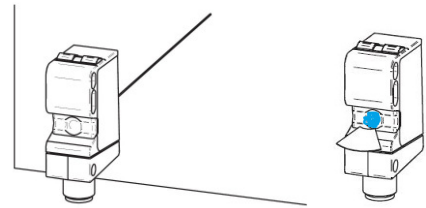
- all dimensions in mm

light beam form

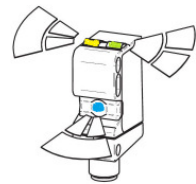


Teach-in procedure:

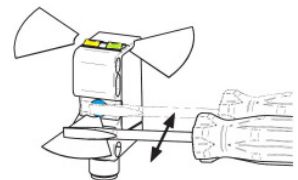
1. Aim the sensor to a reference surface e.g. a reflecting machinepart and make sure that the blue Teach-LED lights.



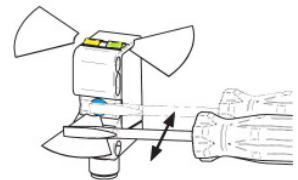
2. Touch the blue Teach-LED which is placed at the rear side of the housing with a ferromagnetic tool for longer than 2 sec. but max. 4 sec., until all 3 LED start blinking with a frequency of 1Hz.



3. Touch the blue Teach-LED again for a short time with a ferromagnetic tool in order to confirm the reference surface.



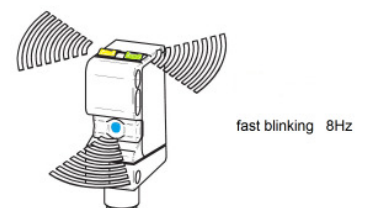
4. The standard configuration of the output is no (normally open). It can be changed to nc (normally closed) by touching the blue LED again for a short time within 4 sec. During this time all 3 LEDs are blinking slowly (1Hz)..



5. As soon as only the blue LED lights, the Teach-in procedure is finished successfully.



If all LEDs blink fast (8Hz), the Teach-in procedure failed and has to be repeated.

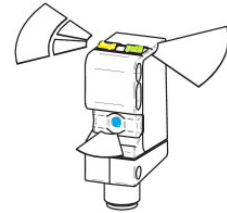
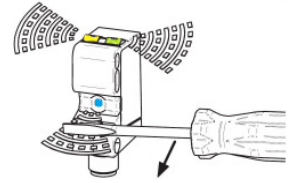


Adjustment control:

The ON450521 has an adjustment control which tests the reflecting capacity of the reference surface. Touch the blue Teach-LED with a ferromagnetic tool for 6 sec. until all 3 LEDs blink with 4Hz and remove the tool.

The yellow LED now indicates the reflecting capacity of the reference surface.

The higher the blinking frequency, the better the reflecting capacity (1Hz = bad, 8Hz optimal). Then go back to operation mode by touching the blue Teach-LED again shortly.

**Note:**

The Teach-in function is active for only 5min. after switching on power. The yellow LED indicates the detection of an object, but does not compulsory correspond to the switching output.

The Teach-in procedure works by using a ferromagnetic tool and as well by using pin 2 (white wire) of the M12 connector. Pin 2 (white wire) has to be connected to +Ub.

connection: e.g. **VK200325**

mounting bracket: **AY000138**

Warning: Never use these devices in applications where the safety of a person depends on their functionality.