

PT630525

Laser sensors
Diffuse-reflection sensor with background suppression



- / plastic housing, compact design**
- / laser protection class 1**
- / adjustment aid with status LED**
- / connection via M12-connector, 5-pin**

2 switching outputs
teach-in



TECHNICAL DATA

sensing range	100 ... 1750mm
adjustment range	100 ... 1750mm
operating voltage U _B	10 ... 30V DC
current consumption (w/o load)	≤ 80mA
output current (max. load)	≤ 100mA
voltage drop (max. load)	≤ 3.5V
output signal	push-pull, no/nc
response / decay time	≤ 10ms
switching frequency	≤ 50Hz
short-circuit protection	+
reverse polarity protection	+
status LED (operating)	LED green
status LED (reception / adjustment aid)	LED yellow
transmitting element	laser diode red, 656nm, pulsed, laser protection class 1
light spot size	Ø 3.7 ... 22mm
material (housing)	plastic (SAN LURAN 378P)
material (front screen)	PMMA
degree of protection (EN 60529)	IP 67
temperature (operating)	0 ... +50°C
tightening torque (max.)	1.5Nm
connection	M12-connector, 5-pin
connection accessories	VK205625

Teaching the sensing range (switching output 1):

1. Connect the teach-in wire (white, PIN 2) longer than 2, but shorter than 4 seconds with +U_B, the yellow LED flashes with 2Hz.
2. Bring the object to be detected to the desired position and connect the teach-in wire shortly with +U_B (0.2 ... 1s).
3. If you briefly connect the teach-in wire again with +U_B within 4 seconds, the switching output 1 is inverted.

Teaching the sensing range (switching output 2):

1. Connect the teach-in wire (white, PIN 2) for longer than 4, but shorter than 6 seconds with +U_B, the yellow LED flashes frequently at 4Hz.
2. Bring the object to be detected into the desired position and connect the teach-in wire shortly with +U_B (0.2 ... 1s).
3. If you briefly connect the teach-in wire again with +U_B within 4 seconds, the switching output 2 will be inverted.

Feedback:

As soon as the yellow LED lights up for 2 seconds, the respective teach process is completed.

If the yellow LED flashes rapidly (16Hz), the teach-in has failed. Either the object reflects too little light (insufficient signal reserve) or it is outside the detection range.

Reset to factory settings

Connect the teach-in wire (white, PIN 2) with +U_B for more than 6 seconds until the yellow LED flashes rapidly.

Soiling indicator

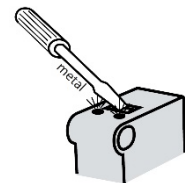
During normal operation, the yellow LED starts to flash when the sensor is operating with insufficient signal reserve.

Notes:

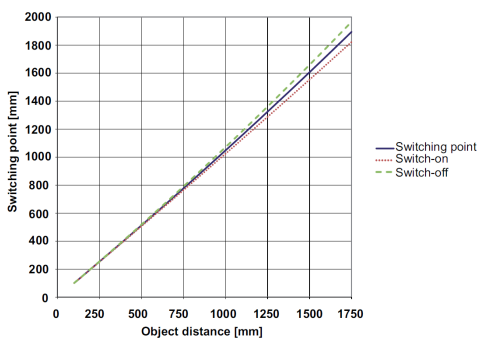
Teaching can also be done using a ferromagnetic tool (e.g. screwdriver or similar). To do this, touch the recess in the housing with this tool, instead of connecting the teach line with +U_B.

The information of the switching states refer to the connection type "positive switching" (PNP). If the device is connected to "negative switching" (NPN), the switching state is reversed accordingly!

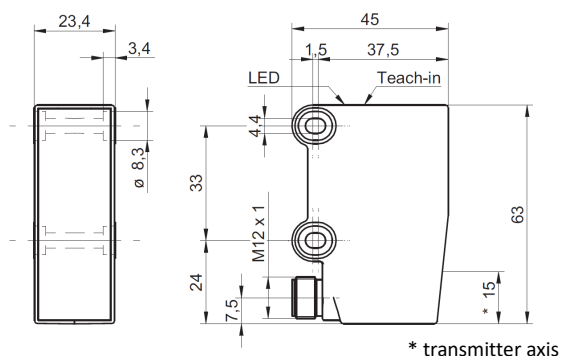
During normal operation, the teach-in wire must be connected to 0V!



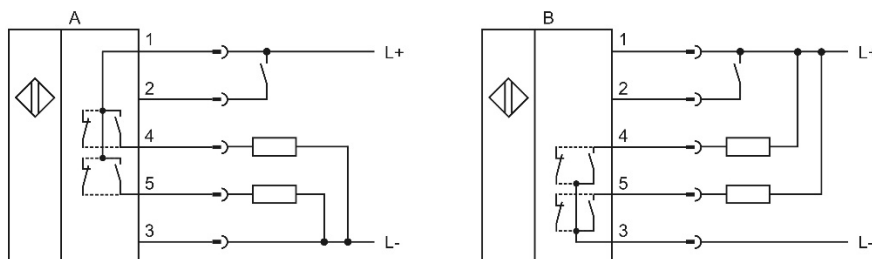
Detection range



Dimensional drawing



Connection



Colors: 1 = bn (brown), 2 = wh (white), 3 = bu (blue), 4 = bk (black), 5 = gy (gray)

Functions: A: 1 = L+, 2 = teach-in, 4 = PNP NO/NC, 5 = PNP NO/NC, 3 = L-
 B: 1 = L+, 2 = teach-in, 4 = NPN NC/NO, 5 = NPN NC/NO, 3 = L-

Safety warnings:

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information.

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

**CLASS 1 LASER
PRODUCT**

IEC 60825-1/2014
 Complies with 21 CFR 1040.10 and 1040.11
 except for deviations pursuant to laser
 notice No. 50, dated June 24, 2007

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