Leuze electronic

Dynamic reference diffuse sensor

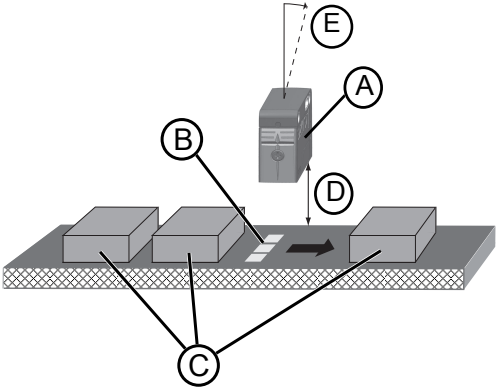
DRT25C

We reserve the right to make changes – 2020/01/23 – 50142432

ПРОМЭЛЕКТРОНИКА / sales@prom-elec.com

Leuze electronic GmbH + Co. KG In der Braike 1 D-73277 Owen Tel.: +49 (0) 7021 573-0
info@leuze.com • www.leuze.com

1



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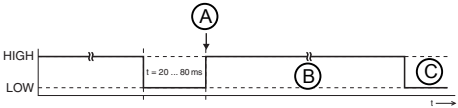

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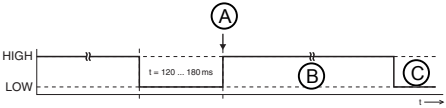

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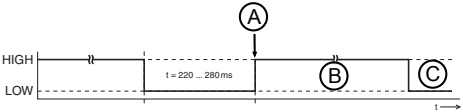

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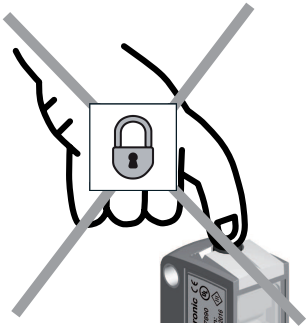

Sensor inclination

1

The sensor uses three spots arranged in parallel. For the best object detection, all three light spots should lie on the object that is to be detected. The maximum difference in the light intensity between conveyor and object is thereby achieved.

A	Sensor DRT25C
B	Light spots
C	Objects
D	Max. 200 mm distance between sensor and conveyor
E	Slight inclination5 … 7°

If you use a conveyor with a degree of glossiness, we recommend positioning the sensor at a slight inclination (5° - 7°) to prevent the gloss reflection from being incident on the receiving element.

Sensor adjustment (teach) via teach button

The sensor uses the conveyor as a dynamic reference. After the sensor has been commissioned, it is essential to perform a teach procedure on the conveyor.
The sensor now detects all objects that do not correspond to the conveyor.

(1) Robust teach (high tolerance) Reliable detection of most objects on a heavily soiled conveyor. Matt and opaque objects are reliably detected. Clear the light path before teaching!	
1	Hold down the teach button (2 to 7 s) until the yellow and green LEDs flash simultaneously.
2	Release teach button – ready.
(2) Standard teach (normal sensitivity) Reliable detection of most objects on a soiled conveyor. Matt and opaque objects are reliably detected. Clear the light path before teaching!	
1	Hold down the teach button (7 to 12 s) until the yellow and green LEDs flash alternately.
2	Release teach button – ready.
(3) Sensitive teach (high sensitivity) Reliable detection of high-gloss or partially transparent objects on the conveyor (e.g., shiny metallic objects, milky transparent outer packaging). The conveyor is only slightly soiled. Clear the light path before teaching!	
1	Press teach button (12 s and longer) until only the green LED flashes.
2	Release teach button – ready.
After teaching The sensor has now been taught to the conveyor. Continuously increasing levels of soiling on the conveyor can be compensated for up to a certain level. Individual objects result in activation of the switching output from the first visible edge until the object exits again.	
Device settings are stored fail-safe.	

NOTICE

The detection rate of the sensor is best at a short working distance.

- First check that the distance to the object is kept as small as possible.
- Change to the standard teach mode or to the sensitive teach mode if this does not produce the desired result.

NOTICE

Reteach the sensor!

The sensor must be retaught in the following cases:

- The distance to the conveyor has changed.
- The conveyor is replaced.

Sensor adjustment (teach) via teach input (pin 2)

This device setting is only available for sensors in the DRT25C.3/LT ... variant.

2

Robust teach (high tolerance)

A Robust teach (high tolerance) is performed
B Teach button is locked
C Teach button may now be operated again

3

Standard teach (normal sensitivity)

A Standard teach (normal sensitivity) is performed
B Teach button is locked
C Teach button may now be operated again

4

Sensitive teach (high sensitivity)

A Sensitive teach (high sensitivity) is performed
B Teach button is locked
C Teach button may now be operated again

Locking the teach button via the teach input

5

This device setting is only available for sensors in the DRT25C.3/LT ... variant (teach input via pin 2).
A static high signal (≥ 20 ms) at the teach input locks the teach button on the sensor if required, such that no manual operation is possible (e.g., protection from erroneous operation or manipulation).
If the teach input is not connected or if there is a static low signal, the button is unlocked and can be operated freely.