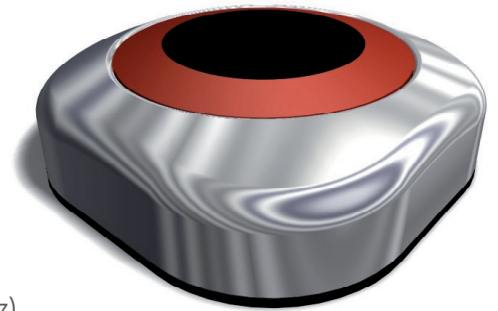


## HALIOS® Demonstrator *ProxDimm-Light*

The new demonstrator shows the major advantages of HALIOS®-based input systems using the example of a simple light control.

### Advantages:

- ▶ larger detection range compared to other sensors (up to 50cm with this example)
- ▶ high dynamics (continuous detection over the whole area)
- ▶ detection of the direction of movements in all three dimensions (x, y, z)
- ▶ low price (compared e.g. to camera based solutions)
- ▶ high speed (real time evaluation)
- ▶ low power consumption (especially compared to other optical systems)



The shown functionality is realised with the Elmos HALIOS®-ASSP E909.05A, the corresponding preamplifier IC 909.07 and optoelectronic standard components (Receiver-Photodiode BPW34, Transmitter-LEDs SFH 4258 and Compensation-LED SFH4050).

### Function description:

Currently there are two functions implemented:

#### 1.) Control of brightness by proximity vertical to the sensor surface

- ▶ After capturing the hand, the brightness changes according to the distance between hand and surface of the ProxDimm-Light.
- ▶ If the hand stays in a constant distance for approx. 3 sec. the intensity of the light will be locked. If the hand then leaves the sensor area, the light will remain switched on.
- ▶ Leaving the sensor area without locking, the light will turn off again.

#### 2.) Detection of horizontal movements (sliding) over the sensor

- ▶ When the hand is entering the detection area from one side, and leaving this area at the other side (from left to right or right to left), a green LED will start to flash. Please note that the correct placement of the demonstrator is important during this function
  - ▶ Movement near the sensor surface: the green LED will flash 2 times
  - ▶ Movement with a higher distance: the green LED will flash 1 time

### Handling:

The sensor will be switched on by pressing carefully (e.g. with a pen) the button on the bottom side of the demonstrator. After switching on, please keep free the sensing area of the sensor, because of calibration. This calibration assures the optimal functionality of this demonstrator. The duration of the calibration is indicated by the flashing LED and the beep sound.

- ▶ *Tip: During the calibration the green LEDs appear, which could help finding the optimal demonstrator position.*

Now the ProxDimm-Light is ready to work and the above mentioned functions 1.) and 2.) can be used.

To switch off the demonstrator (for longer battery life), please put your hand on the surface of the sensor. The demonstrator then begins to beep with increasing speed. Just before reaching a permanent tone, the demonstrator will be switched off. To replace the three micro batteries (AAA), the bottom cover of the sensor can easily be removed.

- ▶ *Tip: In case of an unexpected demonstrator condition (error case), which can not be solved by switching off and on, please remove the batteries.*