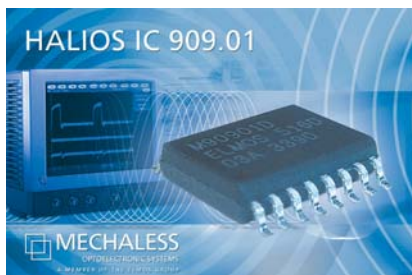
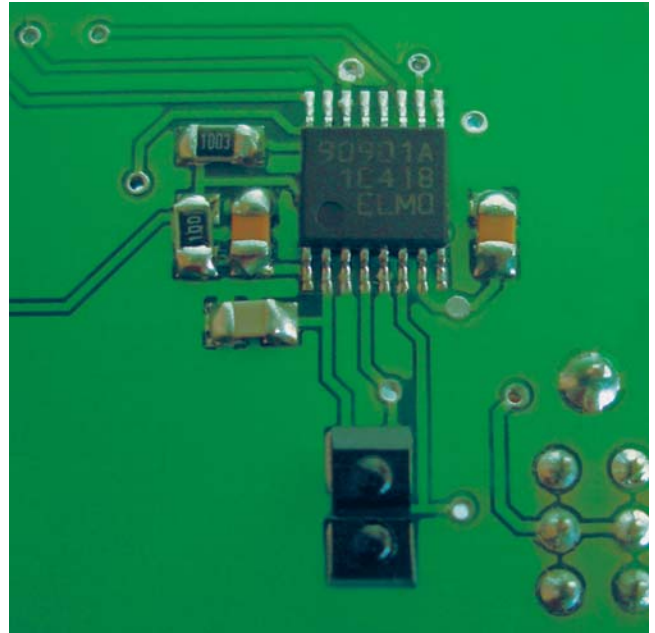


# HALIOS® IC 909.01 Optical Switch

## Description:

The IC 909.01 is an optical switch based on the HALIOS® (High Ambient Light Independent Optical System) working principle. It is thus very effective in suppressing ambient light and has inherent self calibration capabilities to eliminate disturbances caused by housing reflections and scratches.

The device is capable of indicating the situation when objects are entering the detection area of the sensor. Further a switch event is recognized when an object touches the surface of the sensor. Both functions are available with the static output signals PROX and TOUCH. Additionally it is possible to detect the movement of objects in the detection area. The sensor signal is a measurement of reflection and can be read out via an SPI interface.



## Features:

- Supply voltage range VDD 3V to 5.5 V
- Operational up to 200kLux ambient light
- Proximity, touch and switch function
- Parameter adjustment and functional data read back via SPI interface
- Status output for switch and proximity function
- -40°C to 85°C operating temperature
- SO 16-/TSSOP 16 package

## Applications:

- Waterproof switches
- Switch for antiseptic environment
- Switch with background lighting function in case of proximity detection
- Key pad array free of mechanics
- Motion switch e.g. in vacuum cleaner application Proximity sensing



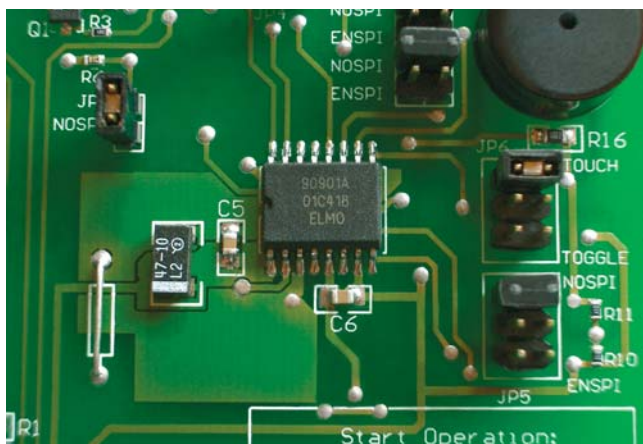
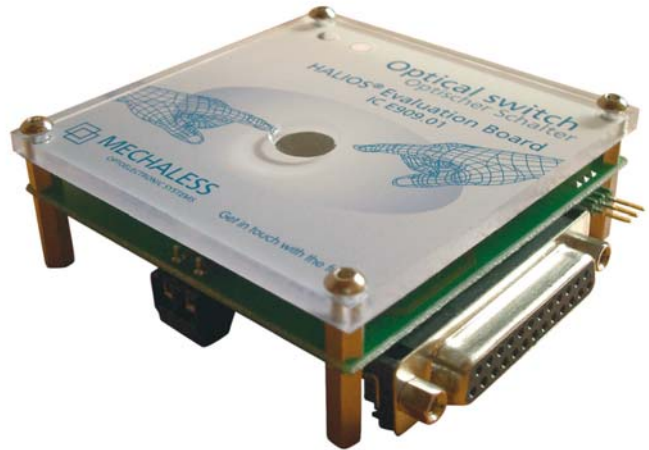
# HALIOS®

## Evaluation Board

“Optical Switch“ based on IC 909.01

### Your Advantage:

For the first time it is now possible to realize a complete switch function with one small optical module positioned behind a closed translucent and thus water and dust proof surface. Distances of several centimetres between the actual sensor element and the user surface can be bridged without affecting the functionality of the sensor. In comparison to conventional systems it is not necessary to have a positive-fit bonding or to fulfil tight tolerance demands between PCB and user surface. Furthermore, additional functions unknown up till now are included, such as an intelligent switch-illumination on approaching the device, without further input and costs.



The opto-electronic Evaluation Board “Optical Switch“ enables the user to experience a multiplicity of HALIOS® applications and to get to know the HALIOS® technology in a simple and easy manner. The PC Software allows the display of a trace of the measurement values in a separate window.

With four slides it is possible to adapt the switch characteristics to the customers' wishes. For a low cost serial production, the IC 909.01 is ready to use.

### Image:

connection of evaluation board to PC  
(Laptop not included in delivery)

### Included in delivery:

- Evaluation Board (measurements in millimeters: LxWxH: 76x76x30) with high-quality acryl-cover. All relevant parameters are adjustable. The essential software is included. The board runs independently, even without a PC-connection (important for mobile usage). The board is powered by a 9V battery (included in delivery)
- CD with PC-Software for adjusting parameters. The device communicates with the PC via a parallel-port (parallel port cable included in delivery). The software is compatible with Microsoft Windows™ and is installed by an automatic set-up.
- Complete documentation on CD. The documentation includes installation, the adjustable parameters as well as function specific explanations

**Price Ex works:**  
189,-- EUR, strictly net.

