

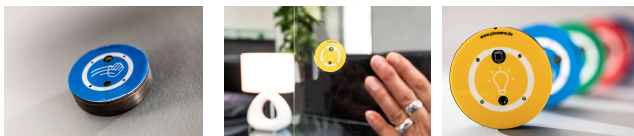
# PicoVit– EnOcean® Proximity switch for glass surfaces



## Short description

The PicoVit is a wireless, flexible proximity switch that can detect through glass and even thermo-insulated glass.

It enables the contactless switching and dimming of lighting and switchable plug sockets to name just a few applications. Therefore, the PicoVit is ideal for applications in shop windows, vitrines and also sliding and glass doors in shops and at home. The clever wireless switch optically detects motion via Red light and communicates over the EnOcean® wireless Standard with other EnOcean® compatible products which can be easily and quickly taught and connected.



## Description

- **Contactless switching through glass** – Hands-Free, hygienic, flexible ...
- **Plug-n-Play** – fast, wire free installation, connected in seconds
- **Extremely low energy consumption** – environmentally friendly, maintenance free
- **Extraneous light independent, self-calibrating, robust, mobile, compatible** – broad application field, ...

Through a simple “wave“ or „approach“ of the hand inside an area of around 15cm distance, the PicoVit can control all possible EnOcean® compatible actuators and their connected devices and consumers.

Connect the EnOcean® products within seconds with each other and place the clever and mobile wireless switches cable-free on any glass surface you like. Now for example, you can control your ambiance lighting with an EnOcean® compatible switchable plug socket from anywhere inside the wireless range of around 30meters, turning them on and off and dim them remotely.

There are countless actuators in a variety of forms (e.g. wall enclosure mounting) that can be connected and “wave”. A few examples, and information to the integration possibilities of the PicoVit in alternative non-EnOcean® systems can be found in the sub-menu “Compatibility”.

## **Energy saving**

The PicoVit was especially developed to have an extremely low energy consumption. The calculated life expectancy of the battery with a normal switching cycle of a typical light switch is approximately 70 years. That batteries today have approximately a 20-25 years physical life expectancy, means that the PicoVit will provide a maintenance free service for this duration.

A battery life expectancy to switching cycles comparison table can be found under the sub-menu "Technical Data ".

## **Extraneous light independence**

The PicoVit that recognises a "wave" or "approach" of the hand, can also be operated in full sunlight, because the clever technology can regulate light up to 150,000Lux, which equates to 1.5 times direct sunlight.

## **Self-calibrating**

The optical system is self-calibrating. Once the PicoVit is positioned, surrounding stationary objects will be automatically calibrated out inside 10 seconds, the PicoVit can then be used as normal. Dust and other infrared light invisible "layers" are also calibrated out.

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# Application

## Areas of application

The PicoVit can be utilized in many application areas. Currently the PicoVit is being implemented in the following areas, amongst others:

- Private houses & apartments
- Office buildings
- Shops & businesses
- Public buildings
- Hospitals
- Hotels
- Kitchens & Restaurants
- Areas with high hygiene standards

## Applications examples

From the simple control of lights via a switchable plug socket or concealed relay, the control of window blinds up to the control of complex systems, anything is possible with the PicoVit. A few examples, and information to the integration possibilities of the PicoVit in alternative “non-EnOcean®” systems can be found in the sub-menu “Compatibility”.

The PicoVit already finds itself in a variety of applications as a:

- Interactive control of devices in shop windows and vitrines
- Light switch/dimmer
- Door opener
- Illuminated call system button
- Presence detector
- ...

The PicoVit is particularly suitable for simple cable-free installations, like in retro-fitting, building renovations and in conservation protected building.

## Compatibility

### EnOcean®-Aktoren

Below is a list of examples of EnOcean® actuators that can be used with the PicoVit to switch different consumers and devices.

A list of all EnOcean® actuators that we have tested, including instructions for setting the function modes for learning the PicoVit, can be found at [picosens.de/EnOcean](https://picosens.de/EnOcean).

Manufacturer	Article	Description	Type
Eltako	FSB61NP-230 V	Control for roller shutters, internal and external blinds	Flush wall
Eltako	FSR61/8-24 V UC	Impulse, relay switch (potential free)	Flush wall
Eltako	FSR61-230 V	Impulse, relay switch (potential free)	Flush wall
Eltako	FSR61NP-230 V	Impulse, relay switch	Flush wall
Eltako	FUA12-230 V	Universal wireless actuator	DIN Rail
Eltako	FUD61NPN-230 V	Universal dimmer switch	Flush wall
Flextron	300816-230 V	Multi receiver, 1 channel	Flush wall
Jäger Direkt	563.010	1 channel bridge for lighting control	Switch
Peha	D 451 FU-EBI O.T.	1 channel receiver	Flush wall
Peha	D 4511 FU-EBIM ST	Mains socket adaptor	Mains Socket
Thermokon	STC-DO Blind 230 V	Receiver for shutters and blinds	Flush wall
Thermokon	STC-DO Light 230 V	2 channel receiver	Flush wall
Trio2sys	10020068	1 channel receiver 16A	DIN Rail
Trio2sys	10020069	1 channel receiver 10A	DIN Rail
Trio2sys	10020071	2 channel receiver 5A	DIN Rail
Trio2sys	10020092	Receiver with remote control and timer	DIN Rail

### Integration into existing systems

The PicoVit can also be integrated into existing building control systems via so-called gateways.

There are various gateways that translate EnOcean® communication into home automation systems such as KNX, DALI, ... or other common bus systems such as USB. For the home automation area, EnOcean® over WLAN gateways are also interesting.

## Technical Data

Reaction distance:	150 mm (dependent on the thickness and material properties of the glass; Reference hand)
Detection area:	See graphic below
Detections feedback:	Optical feedback via blinking green LEDs
Measurement principle:	Red light impulse reflection
	Wave length: 630 nm, impulse cycles: 10 x per second
Extraneous light immunity*:	Up to 150.000 Lux (= 1.5 times sunlight)
Wireless communication:	EnOcean® Equipment Profile (EEP: F6-01-01)
Wireless frequency:	868,3 MHz
Wireless range:	Up to 30 m (dependent on local environment condition)
Max. Output power:	3 dBm
Power supply:	3V celll battery (Typ: CR2032)
Power consumption:	320 nA (in Standby modus)
Battery life expectancy*:	100 switching cycles/day = 30 years
	1000 switching cycles/day = 10 years
	2000 switching cycles/day = 5 years
	*We recommend quality batteries from well-known manufacturers
Temperature range:	- 20 °C to + 85 °C
Protection class:	IP44 (mounted behind the glass)
Dimensions:	50 mm x 16 mm (Ø x H)
Weight:	39 g (incl. battery)

## Detections range

