

Optical proximity switch for the wall

PicoWave for EnOcean® Standard in NOVA-Design by Honeywell PEHA



Short description

Instead of pressing “waven” – this is possible by the NOVA-designed optical proximity switch PicoWave. The innovative operation is integrated into the natural movement sequence and also provides an increase in hygiene, since consumers and devices can be switched without contact. The state-of-the-art wireless switch can be installed wirelessly, allowing for extremely flexible attachment to a desired location. It communicates via the EnOcean® wireless standard with compatible control units (actuators), which can be easily and quickly taught. With the help of gateways, integration into SMART Home and building bus systems such as KNX and DALI can be easily implemented.

Description

- **Contactless switching** – Hands-Free, hygienic, flexible, clean walls...
- **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 10cm distance, the PicoWave 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 optical proximity switch in alternative non-EnOcean® systems can be found in the sub-menu “Compatibility”. For the combi frames there is a pre-selection of different materials and colors within the NOVA line from Honeywell PEHA, from which you can conveniently choose.

Energy saving

Built in the NOVA design case, the optical proximity switch has been designed specifically for extremely low power 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 PicoWave 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 PicoWave 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. If you attach the optical proximity switch so that fixed objects remain in the detection area, they will be calibrated out after 10 seconds and you can use the switch as usual. Dust and other infrared layers are also calibrated out.

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Applications

Areas of applications

You can use the optical proximity switch based on the PicoClick in many applications. Currently it is used among other things in:

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

Applications examples

From simple control of luminaires with switchable sockets, flush-mounted relays or DIN rail mounted DIN rail mounted devices, to the control of blinds, to the integration in more complex systems, everything is possible with the optical proximity sensor. A few examples, and information to the integration possibilities of the PicoWave in alternative “non-EnOcean®” systems can be found in the sub-menu “Compatibility”.

In various installations, the combination of PicoWave with flush-mounted and DIN rail mounted devices is already used:

- Light switch, control
 - Blind control
 - Control of motorized roof hatches
 - Control of sliding doors

The application possibilities of the optical proximity switch are endless.

Particularly suitable is the optical proximity switch and other products from the PicoControls family for use in which electrical installations under plaster are not desired or not possible, such as, for example, in the renovation and retrofitting of facilities in listed buildings, schools, hospitals,

Compatibility

EnOcean®-Aktoren

The technical heart of the NOVA-designed optical proximity switch is the PicoClick. Below is a list of examples of EnOcean® actuators that can be used with the PicoClick 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 PicoClick, can be found at picosens.de/EnOcean.

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 optical proximity switch 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	100 mm (Reference hand)
Measurement principle:	Infrared impulse reflection
	Wave length: 850 nm, Impulse cycles: 10 x per second
Extraneous light immunity*:	Up to 150.000 Lux (= 1.5 times sunlight)
	*Full function even in direct 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 button cell battery (Type: 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 bis + 50° C
Protection range	IP21
Dimensions	85,00 mm x 85,00 mm x 13 mm (L x B x H)
Frame design	Combinations frames in NOVA-Design by Honeywell
Colour	Pure white high shine
Colour	Alu
Colour	Jade pure white
Colour	Oak pure white
Colour	Wenge (wood) Piano black
Weight	Depending on the variant, approx. 100 g (incl. battery)