



RAYBASED

R-Puck™

Wireless control and measuring unit

Raybased R-puck enables wireless measurement and control of all electrical components in a building and is designed to be hidden behind the existing architecture. The pucks communicating wirelessly with each other and contain all necessary information. If a puck breaks, a nearby one takes over its functionality. The R-pucks is wirelessly configured after installation.



Features

- Measure power consumption of load
- Read switches and dimmers
- Control on / off
- Controlling proportionally (dimmers, dampers, etc.)
- Event / Scenario Management
- Read sensor data (temp, light, presence)
- Compiling loading information into useful devices
- Interface to the heating and ventilation system for reading information and control of set points based on events, customer interface.
- Short circuits (breaks the circuit and protects the remaining systems).
- Report damages and faults.

Specifications

Standards

- CE Certified. Complies with applicable European standards regarding electrical safety, EMC immunity and emissions.
- Electrical safety protection type (according to IEC 60529): IP20.
- EMC CE immunity to interference EN50082-2.
- EMC CE emission of interference EN50081-1.

Power / Performance

- Operating voltage: 100 - 250V ~ 50/60 Hz.
- Typical power consumption: 0,36W.

Communication

- Communicates in the 2,4 GHz band using a highperformance, ultra high reliability protocol.
- Can connect to expansion modules using a wired connection.

Environment

- Climatic withstand according to EN 50491-2
- Ambient operating temperature: -20 to +60 Centigrade.
- Maximum 90% non-condensing relative humidity.

Load

- Maximum load: 16A general purpose.
- Inrush current and inductive spike protection.
- Software defined over current protection with selectable fuse characteristic.

Input

- Four inputs allowing connection to any type of external switch.
- Switch should close to ground i.e. neutral phase. Contact current 1 mA.

Energy measurement

- Internal circuitry allows measuring load apparent and absolute power, energy consumption, voltage, current and power factor.
- Accuracy: Better than 2%. Can be manufactured to tighter tolerance at request.

Connections

- Power, load and neutral: Solid core wire 1.5 mm², length 15 cm.
- Switch inputs: Four pole Wago push-in connectors for 1,5 mm² installation wire.
- Expansion connector: Mating cables available in different lengths.

L: Phase. Must belong to the same group as Neutral

N: Neutral

M: Return from load. Connected to N via 1 mOhm shunt resistor.

->: Relay output to load.

