ENERGY HARVESTING WIRELESS SWITCH TECHNOLOGY

Description Wireless Switch

- Energy harvesting wireless system consisting of a generator and a receiver
- Small size, with high energy efficiency
- Wireless data transfer via RF-technology
  – Reduction of connection systems
  – Flexibility for inaccessible locations
  – No complex wire assembly
- "Energy Harvesting" / batteryless – the required RF-energy is created by the mechanical actuation of the switch
- Several frequency bands allow global use within different applications
- Network-compatible
- Maintenance-free – no batteries need to be changed
- Long mechanical life
- Flexible "Pairing" allows the operation of several receivers with one switch (and vice versa)
- „Unique ID" excludes a mutual interference between different RF-switches

Technical Data

Temperature range	– 40 up to 85° C
Lifetime	up to 1,000,000 operations
Fatigue strength	max. 5 g (DIN EN 60068-2)
Shock resistance	max. 15 g (DIN EN 60068-2)
Frequency bands	868 MHz, 915 MHz or 2.4 GHz
RF distance, open area **RF distance, in buildings (typically)**	300 m 30 m at 868/915 MHz 10 m at 2.4 GHz
Dimensions generator	20.1 x 7.3 x 14,3 mm
Operating force	approx. 13 N (monostable) approx. 5 N (bistable, depending on lever length)
Typical total travel	Depending on mechanics (3.4 mm for direct monostable actuation)
Energy generated	2 x min. 0.33 mWs (monostable) 1 x min. 0.33 mWs (bistable)

Receiver

- Integrated (in existing customer control system) or as a separate unit (in a housing/as plugin receiver PCB)
- Antenna integrated or external
- Available interfaces: Voltage, current, bus interfaces, USB, RS232, relay output

Evaluation Kits – Now available!

Engineer Version

- Functional demonstration
- Test of the switching behaviour
- Measuring the received power/ range test
- Simulation of the mounting situation (generator model & CAD data)
- Application testing/connection to a test system
- Alternative antenna concepts
- Comfort version also available (reduced content)

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