



ENIGMA



ENERGY HARVESTING 2016



REAL BATTERY-LESS & WIRELESS SWITCHING TECHNOLOGY FOR THE FUTURE



ENIGMA

Today's Agenda

- About ISM ENIGMA, LLC and our strategic partners
- Our Product Line
 - Industrial versus consumer applications
- How we compare to other “battery-less & wireless” products
 - Patented Technology
 - Powerful energy harvesters produce significant distance and capabilities
 - Size and power



ENIGMA

ISM ENIGMA, LLC is a New York based Limited Liability Company focused on developing the intellectual property of our CEO Dr. David Deak. A Physicist by training, Dr. Deak is a patented inventor as well as a noted Artist, who has created several new concepts of magnet based energy harvesting technology for use in industrial and consumer markets. ISM ENIGMA, LLC has formed strategic partnerships with several International Companies in order to manufacture, license and distribute the products developed to date from the granted patents or patents pending.

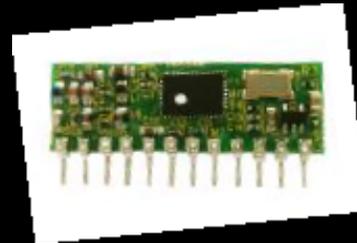


ENIGMA



Wireless Remote Controls without Batteries

- ✓ Complete Self Contained Energy Harvesters with or without transmitter/receiver set
- ✓ Produces 18Vpk
- ✓ +10 dBm RF Transmission (highest power available from any energy harvester)
- ✓ Up to 250m Range
- ✓ 433 MHz FM Technology
- ✓ CE Compliant, UL, CUL listed
- ✓ Various Receivers Available
- ✓ SIL RX Module
- ✓ DIN Rail Module
- ✓ Housed 4 . Relay unit IP68
- ✓ Standard 22mm DIA Push Switch format





ENIGMA

Our Product Line

1. KAPRION 10/22
2. KAPRION 360
3. KAPRION-MKRS Style Rocker Switch (U.K.)
4. KAP-ROCK Rocker Style switch (U.S.)
5. SAFA9 OEM Generator
6. SAFA9 Comepi Limit & Foot Switches
7. SAFA9 Complete





ENIGMA



The KAPRION series is the most powerful energy harvesting transmitter available on the market. Supplied ready to go, it can be fitted to any panel. Each time the user presses the switch the internal energy harvester generates power and a unique RF signal is generated and sent to the receiver.

The KAPRION series produces a +10 dBm RF output power over twice the power of the nearest competitor thus providing a reliable battery-less remote control system. When combined with the matching RF receiver, a remote control system with up to 250m range may be achieved.



ENIGMA



KAPRION 10/22

Applications

- ✓ General Industrial switching, conveyors, machinery, pumps
- ✓ Panel Mount Switch Replacement
- ✓ Hand Held Push Button 'Clicker.'





ENIGMA

KAPRION 360

Applications

- ✓ General Industrial switching, conveyors, machinery,
- ✓ Panel Mount Switch Replacement
- ✓ Hand Held Push Button 'Clicker'





ENIGMA

KAPRION MKRS

Applications

- ✓ UK & EU Style Home or Office Switching
- ✓ Panel Mount Switch Replacement.
- ✓ Outdoor Lighting Remote Control Switching
- ✓ Sea Craft Instrument Switch
- ✓ Vehicle Instrument Switch
- ✓ Instrumentation Panel Switch
- ✓ Stand Alone or Panel Wall Mount Box





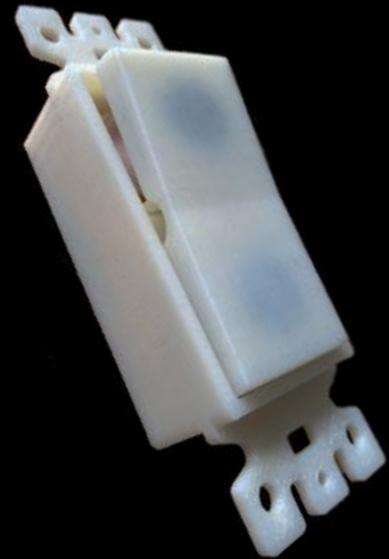
ENIGMA



KAP-ROCK ROCKER SWITCH

Applications

- ✓ General Commercial battery-less & wireless operation
- ✓ Consumer/Home battery-less & wireless operation
- ✓ USA Rocker Switch Replacement
- ✓ New Builds and Rebuilds





ENIGMA

SAFA9 Applications

- ✓ Wireless Security Systems
- ✓ Car Alarms
- ✓ Remote Gate Controls
- ✓ Remote Sensing
- ✓ Data Capture





ENIGMA

Comepi Foot & Limit Switch

Applications

- ✓ **Battery-less & Wireless replacement or conversion of wired-in Comepi limit switches and foot switches.**
- ✓ **Sanctioned OEM partner applications.**

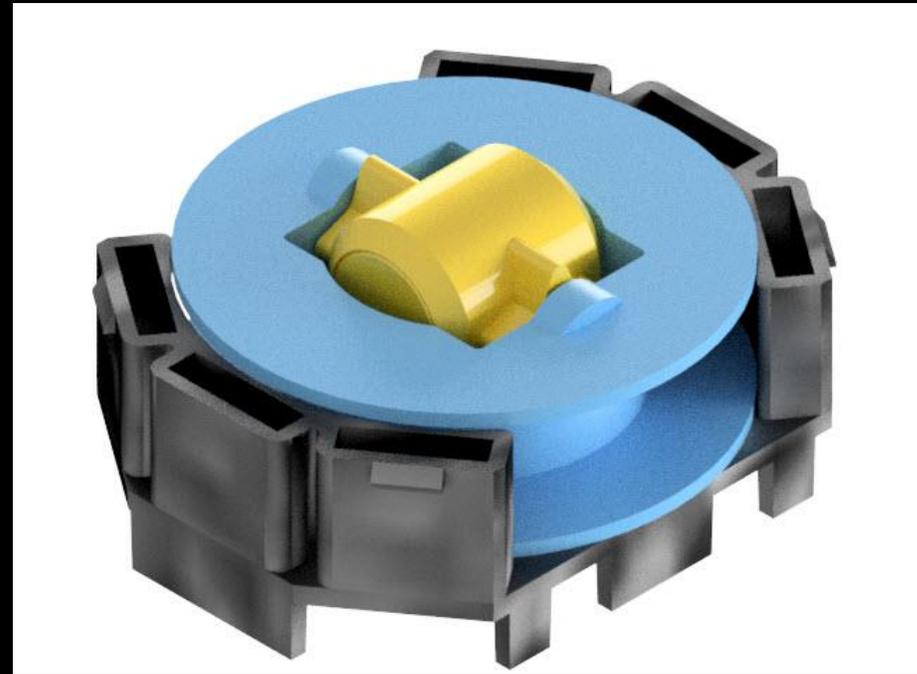




ENIGMA

SAFA9CC OEMG Applications

- ✓ Wireless Security Systems
- ✓ Car Alarms
- ✓ Remote Gate Controls
- ✓ Remote Sensing
- ✓ Data Capture





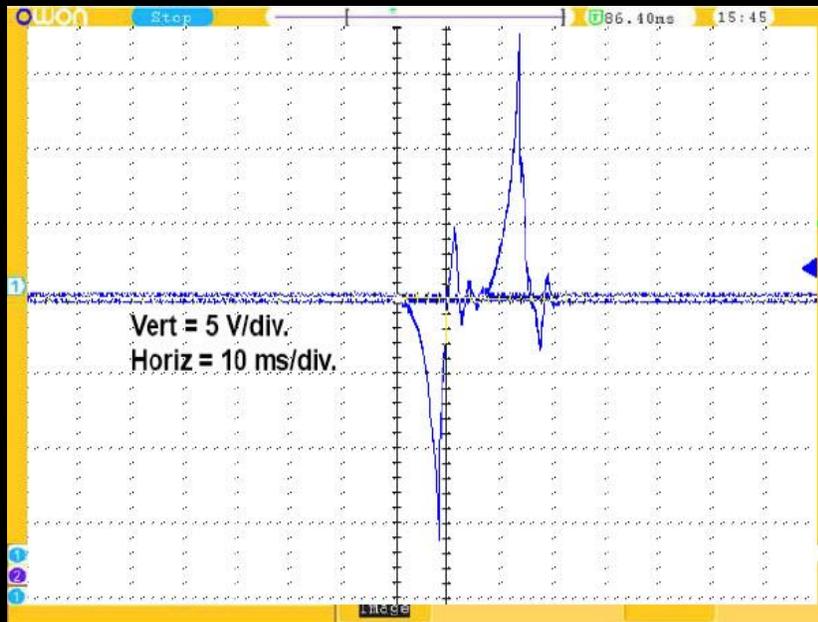
ENIGMA



A Comparison of Energy Harvesters

At the time of writing there are three suppliers of energy harvesting products, EnOcean, Cherry and RF ENIGMA. The RF ENIGMA Energy Harvester produces most power, as a comparison we have measured the Cherry energy output and shown them below as a direct comparison. The EnOcean power is lower than this.

KAPRION-MKRS Energy Output



Cherry AFIS Energy Output

