



Electronic Systems Energy Harvesting Products

Same Products. Same Quality. New Name.

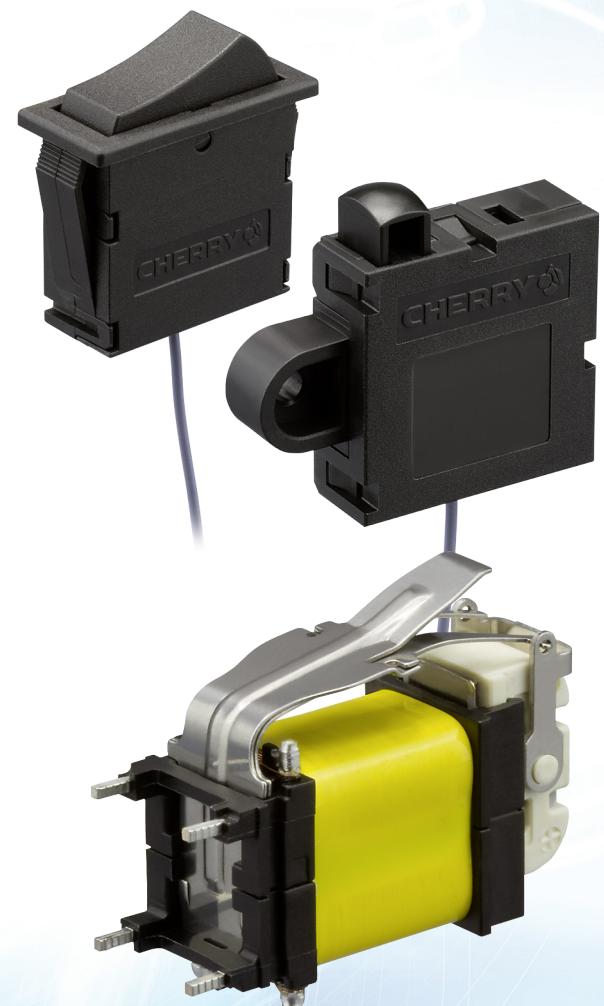
The company ZF Friedrichshafen AG, parent company of "ZF Electronic Systems" Pleasant Prairie LLC purchased Cherry Electrical Products Corporation in 2008. The switch and sensor products were sold under the Cherry brand name for nearly 8 years. In 2016, the Computer Input Device group (keyboard products) was split into an independent company called Cherry Americas LLC, which is now the exclusive owner of the Cherry brand name. The Industrial Solutions group (switch and sensor products) are now being sold under the ZF brand name.

While this change may seem new, ZF has actually been manufacturing and selling Cherry switches and sensors for over 8 years already. The business has continued with the same known quality in the market and is excited to expand into wireless energy harvesting products, as well as develop new sensor products.

For more information, please
[visit www.cherryswitches.com](http://www.cherryswitches.com)

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Energy Harvesting Generators

The ZF Energy Harvesting Generators convert mechanical energy to electrical energy, enabling a wireless data transfer via RF technology and eliminating the need for batteries. This also eliminates the need for complex wire assemblies and increases flexibility for use in previously inaccessible locations. The generator is integral to the switches, and is also available as a stand-alone unit for use with your own mechanical switch. There are multiple frequencies available, as well as a mono-stable and bi-stable version.

Available Generators:



AFIG-0007
Mono-stable Generator



AFIG-0006
Bi-stable Generator



AFIM-5002
Bi-stable Generator with RF
Electronics, ZF protocol wire,
antenna 915 MHz

Features:

Small size with high energy efficiency
868 MHz & 915 MHz frequency bands allow global use within different applications
Long mechanical life: up to 1,000,000 operations (Mono-stable version) and 100,000 operations (Bi-stable version)

ZF Energy Harvesting Switches

Each switch houses the ZF Energy Harvesting generator, using actuation mechanics to convert mechanical energy into electronic energy and eliminating the need for batteries. Flexible pairing allows the operation of several switches with one receiver and vice-versa, and the switch "Unique ID" provides clear identification while operating several switches at once.

Available Switches:



AFIS-5002
Snap Switch (915)



AFIS-5003
Rocker Switch (915 MHz)

Technical Specifications

Operating Temperature	-20 °C to 60 °C (4 °F to 140 °F)
Mechanical Life	Tested for up to 1,000,000 actuations
Frequency Bands	868 MHz or 915 MHz
RF Distance (open area)	Up to 300 m (984')
RF Distance (buildings)	Up to 30 m (98')
Operating Force	15 N max
Operating Speed	0.03 to 0.25 m/s
Ingress Protection	IP40

ZF Wireless Receivers

The AFZE receiver modules work with our Energy Harvesting wireless switches to receive data transfer via RF technology. The system eliminates the need for complex wiring assemblies and increases flexibility for use in "tough to reach" locations. Flexible pairing allows the operation of several receivers with one switch and vice-versa, and the "Unique ID" excludes mutual interference between different RF switches.

The "RF Stamp" receiver module is available as a stand-alone device without the receiver housing.

Available Receivers:



AFZE-5003
Receiver module with housing
RS232 TTL output interface,
wire antenna, 915 MHz
(AFZE-1003 - 868 MHz version)



AFZE-5004
Receiver module only,
wire antenna, 915 MHz
(AFZE-1005 - 868 MHz version)

Features:

Suitable for wall mounting
Network compatible
Various output options
868 MHz & 915 MHz frequency bands allow global use within different applications