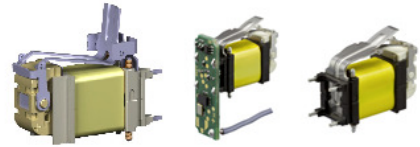


Wireless Switches – Generator

AFIG, AFIM Series Energy Harvesting



Description

The generator and generator with RF-Electronics PCB convert mechanical energy to electrical energy, enabling our Energy Harvesting wireless snap and rocker switches to provide data transfer via RF technology, 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. A mono-stable and a bi-stable version are both available.

Features

- Small size, with high energy efficiency
- 868 MHz and 915 MHz frequency bands allow global use within different applications
- Long mechanical life
- Protocols are sent up to 3 times

Typical Applications

- Building Automation
- Industrial Automation
- Smart Home
- Lighting

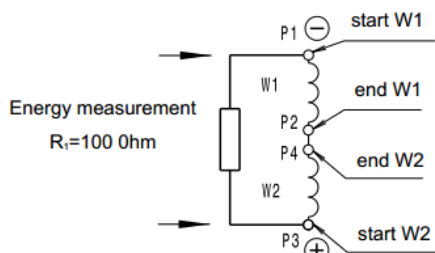
Technical Specifications

Operating Temperature	-40 °C to 85 °C (-40 °F to 185 °F)
Mechanical Life	Up to 1,000,000 operations (Mono-stable) Up to 100,000 operations (bi-stable)
Frequency Bands, Generator with RF-Electronics (available with Mono-stable only)	868 MHz or 915 MHz
RF Distance with Cherry Energy Harvesting Switches (open area, Mono-stable only)	Up to 300 m (984')
RF Distance with Cherry Energy Harvesting Switches (buildings, Mono-stable only)	Up to 30 m (98')
Operating Force	13 N max (Mono-stable) 17 N max (Bi-stable)
Energy Generated	0.33 mWs actuating and releasing (Mono-stable) 0.33 mWs in each actuating direction (Bi-stable)

Products

Part Number	Description
AFIG-0007	Generator, Mono-stable
AFIG-0006	Generator, Bi-stable
AFIM-1001	Generator (Mono-stable), RF-Electronics, ZF protocol wire, antenna, 868 MHz
AFIM-5002	Generator (Mono-stable), RF-Electronics, ZF protocol wire, antenna, 915 MHz

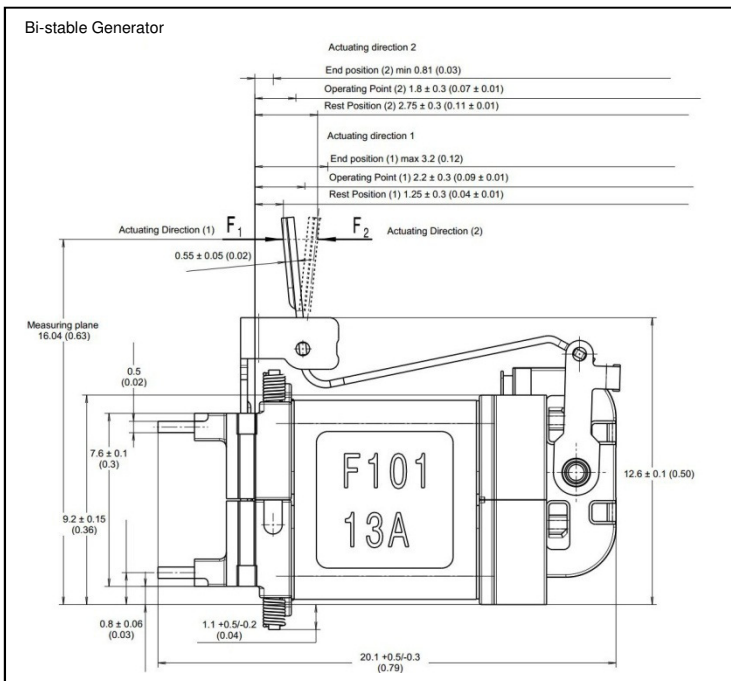
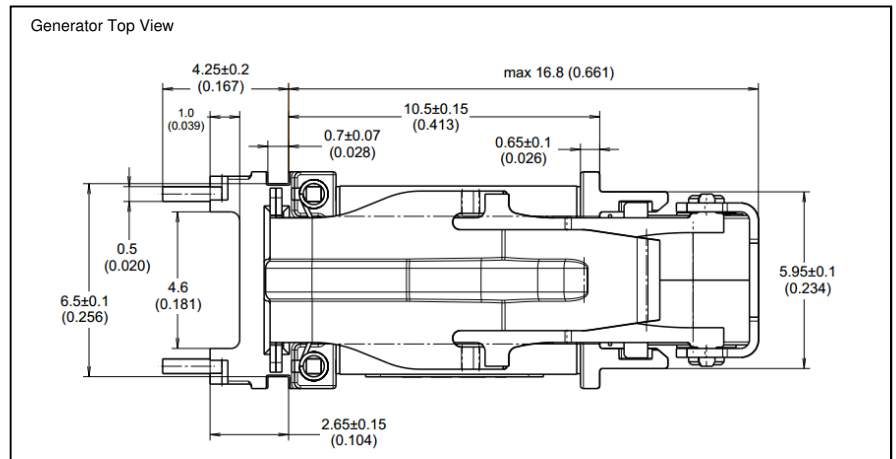
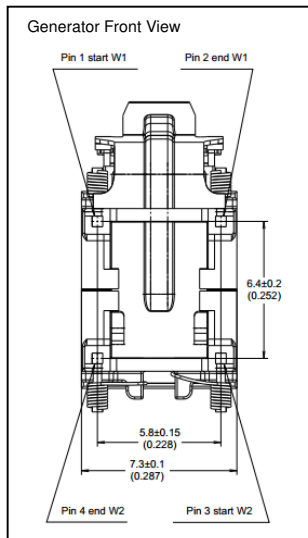
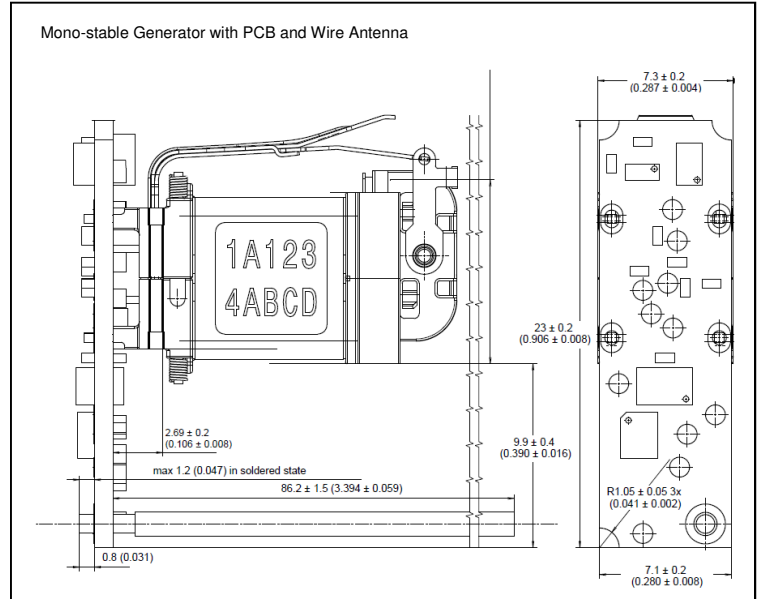
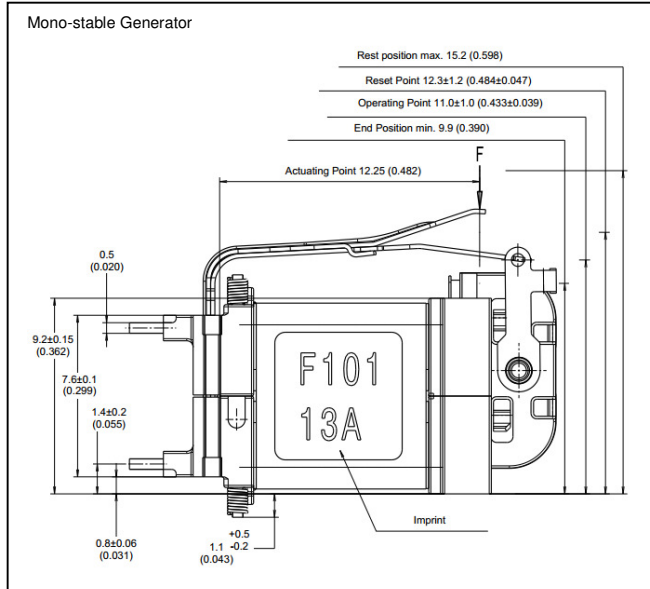
Test Sequence



Observing the polarity a positive pulse is induced at press actuation and a negative pulse is induced at release actuation



Dimensions mm (inches)



<http://switches-sensors.zf.com/>

