

# Flexibility for Industrial Enterprise



The ZF Energy Harvesting Switch enriches control units as retrofit option

Flexibility is an essential feature for industrial enterprise. Infrastructure changes are often required in these environments, which can lead to an inevitable upgrade of equipment and control systems. Using a wireless and battery-free pushbutton is the simplest and quickest way to modify existing control units.

### The technological principle:

The ZF radio switch converts the kinetic energy from the mechanical actuation of the switch by induction into a voltage pulse. This voltage pulse is enough to reliably transmit RF commands via commercially available radio protocols such as EnOcean3.0, ZigBee Green Power or BLE5.0. The radio switch is therefore free of any external power sources, batteries, or wires.

### The advantages:

- Flexibility in application design - no cables necessary
- Long lifetime (1,000,000 switching cycles) and no batteries – no maintenance necessary
- Compact design (20.1 x 7.3 x 14.3 mm) – for applications with limited space
- Compatible with commercially available standard protocols (EnOcean3.0, BLE5.0, ZigBee)

### Application example: Wireless Industrial Switch from Schneider Electric

The partnership between Schneider Electric and ZF Friedrichshafen AG leads to a new level of smart industrial switches. With the help of the compact generator from ZF, Schneider Electric has released the new industrial Harmony ZBRT wireless and battery-less interface. This self-powered transmitter is fully modular and compatible with industry top-class Harmony XB4 and XB5 control units. New functions can be added to the system by simply adding an energy harvesting pushbutton. Each RF switch has a unique ID and can be associated to a specific function or machine. Moreover, a duplication of function is possible to control additional equipment with an existing pushbutton. This retrofit option saves time and cost in wiring, programming, and it avoids the maintenance of changing batteries.

*Wireless Industrial Switch from Schneider Electric & Energy Harvesting Generator from ZF*

