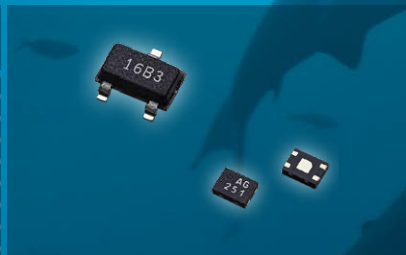


# Melexis

INNOVATION WITH HEART

MLX92216 & MLX92217

## 3-WIRE HALL EFFECT SWITCH



The hammerhead shark is able to detect electronic signals of no more than half a billionth of a volt. The process uses specialized electroreceptors to detect and locate the source of an external electric field in its environment. What better animal to reflect our sensing capacities?

## ULTRA-LOW POWER LATCH & SWITCH FOR CONSUMER AND INDUSTRIAL

The MLX92216 and MLX92217 are micropower Hall effect switches. They offer 1 microwatt power consumption and narrower tolerances which enable predictable power budget, helping to extend battery runtime. These magnetic devices are ideal for replacing traditional reed switches in Internet of Things (IoT), industrial and white good applications.

### KEY FEATURES

- ✓ Micropower consumption in operation (e.g. 0.9 $\mu$ A at 1.8V/11Hz)
- ✓ 1 microwatt in power down state (200nA at 5V with enable pin)
- ✓ Best in class min/max  $I_{DD}$  tolerances for a stable and predictable power budget
- ✓ Typical sleep current 0.65  $\mu$ A at 1.8V
- ✓ Operating voltage range from 1.6V to 5.5V
- ✓ Push-pull or Open Drain output type
- ✓ No external components required
- ✓ Selectable Sleep time 0.6ms to 800ms
- ✓ Ambient temperature from -40°C to 85°C
- ✓ Chopper stabilized very sensitive Hall sensor
- ✓ Selectable magnetic thresholds and temperature coefficient
- ✓ Various magnetic functions: Unipolar, Omnipolar Switch or Latch
- ✓ Under-Voltage Reset protection
- ✓ Packages, RoHS compliant
  - DFN-4L (LQ) 1.2mm x 1.6mm
  - TSOT-3L (SE) 2.8mm x 2.9mm



open-close detection

# APPLICATIONS

- ✓ Reed switch replacement
- ✓ Open/close detection
- ✓ Proximity sensor
- ✓ Consumer electronics (i.e. TWS)
- ✓ Battery powered, Handheld devices
- ✓ Industrial & medical appliances
- ✓ White goods, smart lock & IoT devices
- ✓ Energy & Flow metering

open-close  
detection



position  
detection

open-close  
detection



position  
detection



open-close  
detection



buttons,  
levers,  
liquid level

open-close detection  
& anti-tampering



flow index  
counting

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