

MLX92362 / MLX92361

## HALL-BASED FLOATING 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?

## ISOLATED OUTPUT HALL LATCH/SWITCH

MLX92362 / MLX92361

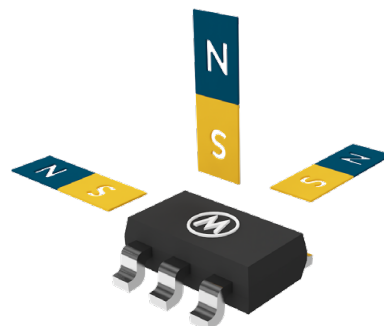
Providing yield and reliability in fluid level measurements, the MLX92362 and MLX92361 are unique plug-and-play magnetic latch/switch. With their isolated floating output, they only require a power supply to directly drive the load. Hassle-free assembly is guaranteed thanks to CMOS testability, solder reflow and contactless operation. Additionally, a series of ICs can be connected in a single module, and synchronized via the same 3-wire interface thanks to the built-in daisy-chain function. The MLX92362 is programmable while the MLX92361 comes pre-programmed.

### KEY FEATURES

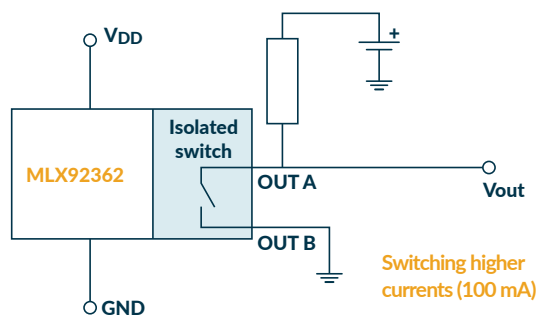
- ✓ Normal or lateral magnetic sensitivity options X (Y) or Z
- ✓ Switch output fully isolated from the supply voltage (can be below GND or above VDD)
- ✓ Built-in daisy-chain functionality to synchronize multiple ICs
- ✓ Typical  $R_{ON}$  of 3Ω
- ✓ Programmable magnetic thresholds and threshold temperature coefficient
- ✓ Output current 100 mA average (200 mA max.)
- ✓ Operating voltage range from 4.5V to 28V
- ✓ Operating temperature from -40°C to 150°C
- ✓ Package RoHS compliant TSOT-6L
- ✓ Low average supply current – 180μA typical
- ✓ Under-Voltage Reset protection
- ✓ Thermal protection

### APPLICATIONS

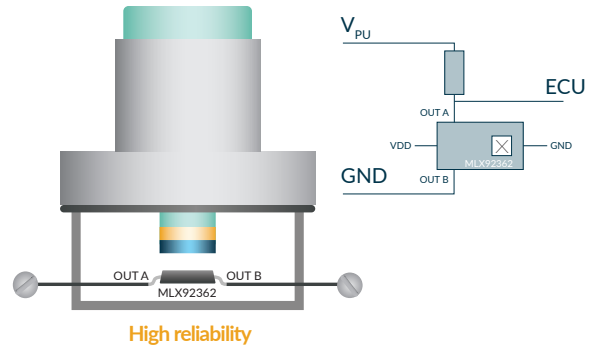
- ✓ Floating switch 3-wire
- ✓ Reed switch replacement
- ✓ Push button
- ✓ Direct load driving



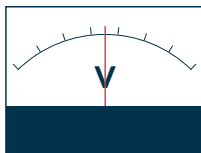
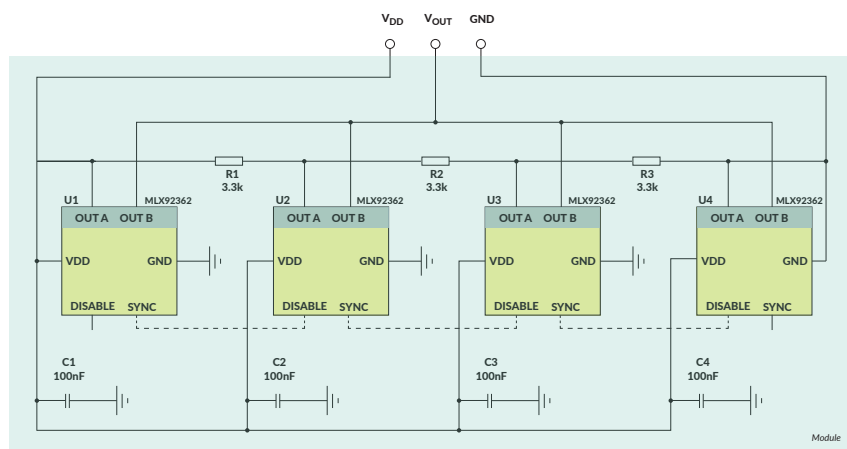
## DIRECT LOAD DRIVING



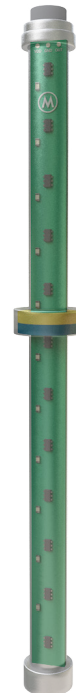
## PUSH BUTTON - HIGH SIDE / LOW SIDE SWITCH



## FLUID LEVEL SENSING - 3-WIRE

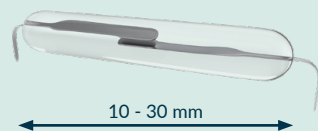


Multiple sensors connected in a single module and synchronized via the built-in daisy-chain functionality



## CLASSIC REED SWITCH VERSUS MELEXIS HALL-EFFECT SWITCH

### Classic reed switch vs. Melexis Hall-effect switch



- Bulky design
- Complex PCB assembly
- Fragile



- 5 times smaller form factor
- Reflow soldering possible
- No bouncing issue
- No "glass" usage
  - Robust package
  - Easy to assemble

- Same magnet compatibility
- Compatible with 3-wire interface

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