Standex Electronics®

PARTNER | SOLVE | DELIVER®

Low Power Wake-Up Sensor

Expertise Plus Collaboration Equals Success

Reed switches are a great solution for wake-up applications because they have the reliability of solid-state devices combined with the electrical simplicity of switches. They are easy to use but not so easy to optimize. **Standex Electronics** takes pride in partnering with companies to provide the support needed to make a good product into a great product. This process is best illustrated with an example.

The Starting Point

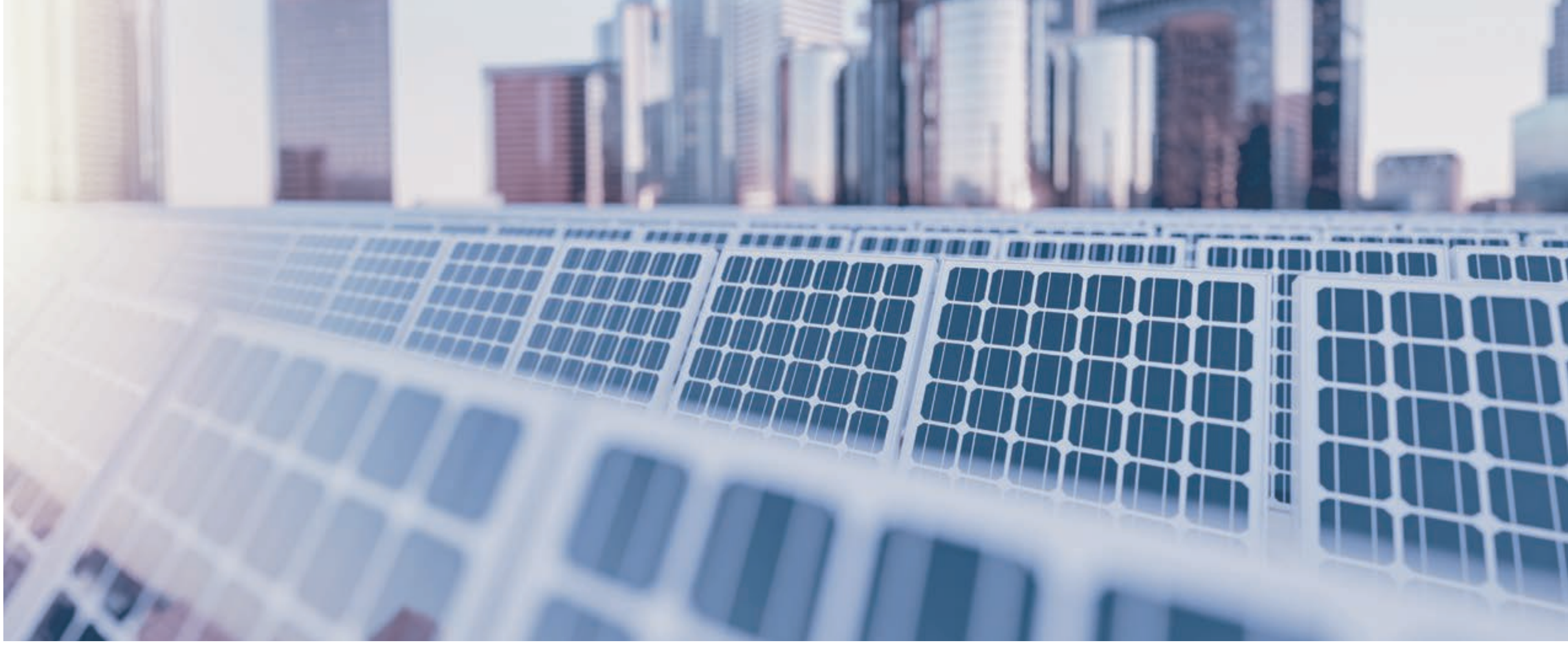
When a late-stage startup in the medical field approached Standex for a wake-up sensor, the company's design used a rechargeable battery that was placed in a charging cradle when not in use. The charging cradle contained a magnet which kept a normally closed reed switch open when the device was in the cradle and allowed the switch to close when it was removed from the cradle. This initial design had high component costs: a rechargeable battery, its charging circuitry, and using a normally-closed (NC) reed switch instead of the more cost-effective normally-open (NO) type. In addition, if the user forgot to place the device in the charging cradle, the battery would discharge, and the device would not function.

Moving from Good to Great

A collaborative redesign of the product with Standex Electronics engineers resulted in lower cost and better product performance. During product usage, the attachment method was changed from a mechanical fastener to a magnetic fastener. One of the attachment magnets served a second role in waking up the device when it was actually being used. Because of lower power usage, the design was changed to a lower-cost primary (non-rechargeable) battery. The charging cradle was completely eliminated. The reed switch was changed from normally-closed to a lower cost normally-open one. And the user no longer needed to remember to place the device in the charging cradle.

Key Support

Key to improving the product design was defining the magnet size and strength versus the reed switch sensitivity and position relative to the magnet. Optimizing the magnet reed-switch interaction to optimize cost and manufacturability is a strength of Standex Electronics collaboration. Early involvement is better for all.



Big and Small

Standex values hand-in-hand collaboration. It's like working with a small company. But with the economies of scale, global footprint through facilities in the Americas, Europe, and Asia, and support services of a large company.

Standex Electronics has a commitment to absolute customer satisfaction through a partner, solve, and deliver approach. With a global organization that offers sales support, engineering capabilities, and technical resources worldwide – we implement customer-driven innovation that puts the customer first.

If your application requires one of our standard sensors from our catalog, that's clearly the best approach and the quickest solution to satisfying your design requirement. However, more than half of our shipped sensors are from special requirements. Since many sensing requirements are unique, working with customers on their special applications is expected.

Because at Standex, "custom is standard."

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