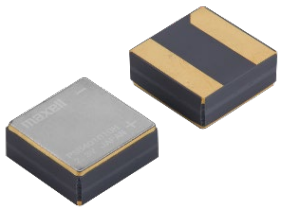
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Within, the Future

News Release

November 26, 2026
Maxell, Ltd.

Maxell's All-Solid-State Battery Adopted for Yokogawa's PLC (Programmable Logic Controller) for Process Automation

Long service life[*1] of all-solid-state battery helps reduce TCO (Total Cost of Ownership) throughout the product lifecycle.



Maxell's All-Solid-State Battery "PSB401010H"



Yokogawa's "OpreX Universal Autonomous Control System" PLC featuring "PSB401010H"

The ceramic-packaged all-solid-state battery "PSB401010H," mass produced by Maxell, Ltd. (President and Representative Director: Keiji Nakamura / hereinafter "Maxell") has been adopted for the "OpreX Universal Autonomous Control System" PLC to be launched today by Yokogawa Electric Corporation (President & CEO, Representative Executive Officer: Kunimasa Shigeno / hereinafter "Yokogawa"). This marks the first time that the "PSB401010H" has been adopted for use in a PLC.

PLCs are industrial computers used for the automated control of equipment across a wide range of fields, including manufacturing sites and infrastructure. They serve as essential control devices that operate machinery based on sensor signals and perform operations and monitoring. PLCs are generally equipped with RTCs (Real-Time Clocks) to maintain time data even during power outages, and primary (non-rechargeable) batteries are typically used as their backup power source. However, the use of primary batteries presents challenges, such as the burden of battery transportation, maintenance, and periodic replacement.

The "OpreX Universal Autonomous Control System" is Yokogawa's latest PLC for process automation (PA). Built on a foundation of robustness developed over 50 years in the PA industry, it supports industry standards such as IEC 61131-3[*2] and OPC UA[*3], offering both flexibility and scalability. Furthermore, it helps customers optimize their production processes while adapting to the evolving landscape of the PA industry.

The newly adopted Maxell's "PSB401010H" offers the long life and high reliability[*4] inherent to all-solid-state batteries. As a rechargeable battery, it is expected to facilitate the realization of continuous system operations. Furthermore, it contributes to sustainable facility management by reducing the TCO through lower battery transportation costs and reduced labor for replacements as well as minimizing environmental impact by decreasing the frequency of battery replacements.

Additionally, the battery features a wide operating temperature range[*4], ensuring stable performance at temperatures ranging from -20°C to 70°C for the "OpreX Universal Autonomous Control System." This enables the development of highly robust systems even in harsh environments such as cold regions, high-temperature areas, and maritime locations, where conventional PLCs using primary batteries faced challenges.

Under its corporate byline, "Micro batteries. Maximum impact.", Maxell embodies the belief that small batteries can create great value. Moving forward, leveraging four pillars of long life, high heat resistance, high power output, and large capacity, Maxell aims to commercialize batteries that can be used in the fields where conventional batteries have not been suitable, and contribute to the resolution of social challenges and the realization of a sustainable society.

*1 long-life characteristics: Please visit Maxell's all-solid-state battery webpage for details.
https://biz.maxell.com/en/rechargeable_batteries/assb-introduction.html
*2 IEC 61131-3: International standard for PLC programming
*3 OPC UA: Open Platform Communications Unified Architecture, A unified architecture for standardizing communication and data integration between industrial equipment
*4 High reliability and wide operating temperature range: Please visit Maxell's all-solid-state battery webpage for details.
https://biz.maxell.com/en/rechargeable_batteries/allsolidstate.html

OpreX Universal Autonomous Control System webpage
https://www.yokogawa.com/solutions/products-and-services/control/control-and-safety-system/oprex-universal-autonomous-control-system/

All-solid-state battery webpage
https://biz.maxell.com/en/rechargeable_batteries/allsolidstate.html

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