el·watch

App-controlled Neuron Actuator for remote control

”Have you tried turning it off and on again?” This question or advice is often heard. And yes, most of the time, that’s all it takes to get a computer or electronic control unit working properly again.

There are several remote facilities that play a signifi cant role in how society functions, such as pump stations for hydropower and sewage. These pump stations are crucial in everyone’s daily life, ensuring effi cient and reliable water supply to power stations and managing wastewater from homes, commercial buildings, and public facilities.

Because of their importance, it is critical to ensure the optimal operation of remote facilities and stations to avoid problems like fl ooding and blockages, and to reduce the risk of potential contamination of water sources and the environment.

Challenge

- Restarting something right in front of you is easy. Usually, you just need to unplug it and plug it back in. But what if the equipment you need to restart is miles away?
- Remote facilities, like pumping stations transporting water to/from reservoirs or wastewater from residential and industrial areas to sewage treatment plants, require regular maintenance and continuous monitoring.

- Time-based maintenance could mean that pumps fail before scheduled maintenance or that pumps are taken out of service for maintenance when it isn’t necessary - both with negative fi nancial implications over time.
- Manual readings and supplier data are often inadequate to determine if maintenance is required. Corrective maintenance based on breakdowns or faults can take a long time to carry out and poses a higher risk to both technicians and the system’s overall operation.
- Based on maintenance needs, staff may be dispatched to facilities to investigate potential faults, only to fi nd that the units simply need to be turned off or on.
- In such cases, the company loses valuable time and uses resources on trivial tasks that could easily be avoided with condition monitoring and remote control.

Solution

The Neuron Actuator is designed for locations where you need reliable, remote control of a device’s on/off state. Compact and robust, the unit mounts easily on a DIN rail inside an electrical cabinet or junction box, making installation quick and straightforward.

Equipped with a high-performance relay rated for 250 VAC / 30 VDC up to 10 A, the Neuron Actuator allows you to remotely switch gates, lights, industrial fans, and small to medium-sized motors — all with the click of a button.

Communicating wirelessly with a Neuron Gateway, the actuator continuously sends real-time status data to the Neuron Cloud, giving maintenance teams instant insight and full control over connected equipment — anytime, anywhere.

Just like El-Watch's IoT sensors, the Neuron Actuator integrates seamlessly into the existing Neuron ecosystem. This means your system can easily expand to include process and equipment monitoring, providing a complete overview of both performance and control in one platform.

What you get

1. Staff can restart equipment in remote facilities from a simple app.
2. The Neuron Actuator allows quick and safe responses to irregularities, protecting remote equipment from further damage.
3. Combined with other sensors for condition monitoring, the Neuron Actuator can act as a safety link to prevent equipment from operating above desired limits.
4. Status and data from IoT sensors can be transferred to monitoring software for further analysis and storage using API integration from Neuron Cloud.
5. Fewer resources are spent on unnecessary trips, saving costs and the environment.
6. Reduced time spent on simple tasks means work time can be spent on tasks that benefi t the company and motivate the employees.

Products in use

- Neuron Actuator

REMOTE CONTROL BY APP-CONTROLLED ACTUATOR