

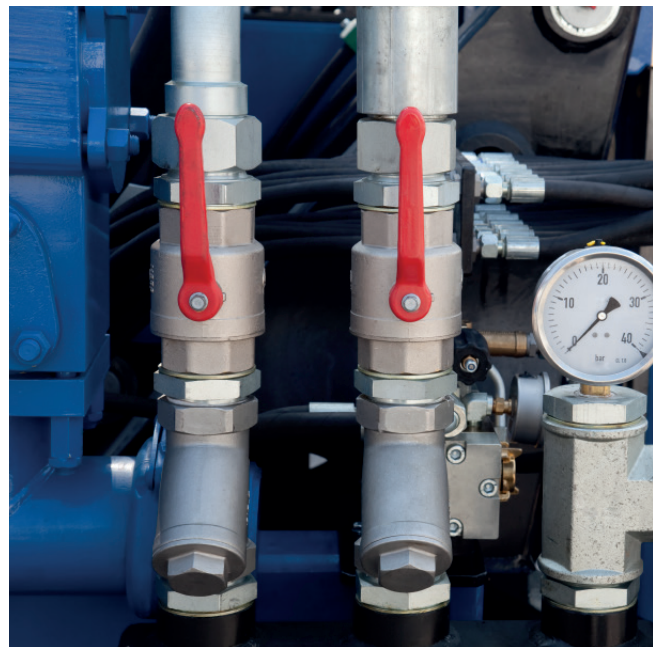
Valve position monitoring

Did you turn the valve to its correct position after working on the piping system? Maybe you need to walk back to the end of the factory to double check?

In industrial environments, valve position plays a critical role in the efficient operation and safety regarding piping systems. Various machines and equipment in production facilities require precise control over gas and fluid flow to maintain optimal working conditions and ensure reliable production. Applications within industry settings may include monitoring valve position in automated production lines, controlling flow in piping systems, regulating fluid flow in chemical processes, or controlling airflow in air conditioning and cooling systems.

There are several reasons why monitoring valve position is especially important:

1. **Optimize operation:** Proper valve position is critical for maintaining optimal operation of industrial systems. For example, the position of valves in production facilities can control the flow of liquids or gases, affecting the process speed and quality.
2. **Focus on energy and environment:** Incorrect valve position can lead to energy loss. In ventilation and climate control systems, misadjusted valves can lead to leakage or unintended airflow, resulting in increased energy consumption. Should the system leak or if a harmful liquid flows out of the system due to incorrect valve positions, it can negatively affect the surrounding environment.



3. **Increase safety and protection:** Proper valve position is important for maintaining safety in industrial systems. For example, it is crucial that the valves in a fire suppression system are in the right position to ensure a quick and reliable response in case of fire.
4. **Prevent damage and failures:** Incorrect valve position can lead to damage to equipment and components in industrial systems. For example, pressure or flow levels of liquids or gases above certain values caused by incorrect valve position can lead to wear, leakage, or overload on the system.

Challenge

- In many industrial settings, incorrect valve position can lead to inefficient operation, loss of productivity, and several risks regarding safety. Manual monitoring and visual inspection can be time-consuming and unreliable, and a lack of knowledge about the position of the systems valves can lead to misalignments, leaks, or even damage to the equipment.
- Additionally, the area may be unsafe to move in. If the piping system is extensive, there are most likely several valves you must keep track of, which can become challenging to inspect if you don't have easy access to them. Therefore, a reliable and automated method for monitoring valve position is crucial for

maintaining optimal operation and reducing the risks associated with incorrect valve positioning.

- associated with these operations. Due to these hazards, manual measurements are often considered one of the most dangerous tasks performed in potline environments.
- Moreover, relying solely on manual measurements and metal sample analysis can lead to delayed detection of issues and subsequent production losses. The absence of real-time information on parameters such as temperature, metal content, and current hampers proactive maintenance and decision-making processes.

Solution

- By using the Neuron Dry Contact sensor for monitoring the position of your valves, you can ensure accurate and reliable status monitoring of valves in many different industrial environments.
- The sensor is connected to the valve's position switch and registers open/closed states. The wireless transmission of the valve's status allows for monitoring the position in real-time and helps identifying deviations or irregular changes in the system.
- This provides the opportunity to implement measures to resolve any issues and maintain optimal production and safety. By having reliable and continuous monitoring of the valve position, your company can optimize production efficiency, reduce energy consumption, and improve operational safety.

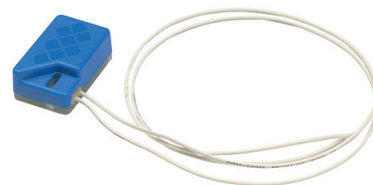
What you get

1. A Neuron Dry Contact sensor that is easy to install.
2. The sensor identifies and wirelessly transmits the valve's state to the Neuron App, with the option to transfer the data to other software via API.

3. Continuous monitoring of valve position in real-time.
4. Storage of historical data which can assist in troubleshooting and maintenance planning.
5. Customization of parameters such as measuring frequency as needed.
6. Ability to set custom alert levels via the Neuron app, with alerts via email or SMS in case of deviations or changes in valve position.
7. Helps reduce the risk of inefficient operation, leaks, equipment damage, and safety risks due to incorrect valve position.
8. Increased security by having reliable monitoring of industrial processes, leading to better production efficiency and operational safety. data through our robust wireless sensors, you can proactively address potential issues, minimize production losses, and ensure the safety and optimal performance of your aluminium electrolysis process.

Products in use

- Neuron Dry Contact



Neuron Dry Contact