

IIoT-Enabled pressure sensor monitors air loss in pneumatic systems to optimize energy usage

Pressure Sensor Enables Condition Monitoring to Reduce Costly Pneumatic System Losses

Emerson's new AVENTICS™ AF2 pressure sensor monitors air consumption, enabling rapid intervention in the event of leakage, preventing excessive cost and machine breakdown.

Emerson the AVENTICS AF2 pneumatic systems pressure sensor which monitors energy losses at Hannover Fair. Thus, the product helps to avoid machine breakdowns and costs associated with excessive air consumption. The sensor continuously monitors the air consumption in pneumatic systems enabling compliance with the Energy Management standard DIN ISO 50001. Suitable for use in many industries, the device is just one of many components available from Emerson for networked plants in factory automation, known as the Industrial Internet of Things (IIoT).

“The AVENTICS AF2 series flow sensor is ideally suited to those companies aiming to control and optimize their energy usage,” said Andreas Kliewe, expert for energy management at Emerson. “The device records the flow rate and compressed air consumption in a system, sending a signal to the controller when pre-set levels are exceeded. This helps avoid excessive energy loss and enables rapid intervention in the event of an issue. After all, the share of energy unit costs in the gross production value is two to three percent - so it's worth saving here.”

An Organic Light Emitting Diode (OLED) display on the AF2 provides local indication of all relevant operating and diagnostic data. The pressure sensor is available as a NO and NC version. Analog outputs can be switched with a signal from 4 to 20 mA. These signals can be interpreted directly by many controllers. Another possibility for communication is the IO-Link capability of the sensor and the Ethernet interface, enabling customers to use the optimum device to communicate with existing controllers.

Modular construction ensures easy installation, and small dimensions mean it can be installed where space is limited. The AVENTICS AF2 offers flexible installation options. It can be integrated into maintenance units or used independently. The flow sensor is suitable for all common applications and industries such as automation, food and packaging.



Continuously monitoring air consumption and energy loss, Emerson's AVENTICS AF2 pressure sensor enables rapid intervention in the event of leakage, preventing machine breakdown and high costs.

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