SICK

SICK Launches Cost-Cutting Real-Time Energy Monitoring of Compressed Air

As manufacturers face rising energy bills, SICK has launched the FTMg with Monitoring App, an Industry 4.0 solution that helps them see the data they need to reduce energy consumption through better control of compressed air.

The SICK FTMg with Monitoring App enables production and maintenance teams to monitor compressed air continuously so they can reduce leaks, improve operating efficiency, and cut costs.

Compressed air is the 'fourth utility' of manufacturing. According to the British Compressed Air Society, it accounts for 10% of energy use in a typical operation and rises to 30% in heavy use industries.

Using data from strategically-positioned SICK FTMg flow meters, the cloud-based SICK FTMg Monitoring App visualises a wealth of both real-time and historic data about compressed air usage. It enables continuous energy management, condition monitoring and predictive maintenance of compressed air systems from any internet-enabled device.

Targeted Energy Reduction

The SICK FTMg with Monitoring App is a scalable system that can target the compressed air energy use of individual machine cells through to entire production or logistics halls. With no programming needed, it can quickly start visualising continuous compressed air data in a way that is easy to use and interpret. As well as enabling more sustainable use of resources, the data insights support better operational efficiency and help achieve reduced carbon targets, contribute towards ISO50001 Energy Management certification or compliance with the UK Government's Energy Saving Opportunity Scheme (ESOS).

Darren Pratt, SICK's UK Product Manager for Industrial Instrumentation explains:

"Compressed air is one of the biggest consumers of energy in manufacturing and logistics, and costs are skyrocketing. Many production teams are currently restricted to conducting periodic spot checks, and all too-often, not enough is known about where leaks are, or which machines are the biggest consumers.

"We are already seeing how early adopters of the FTMg Monitoring App are gaining remarkable, and sometimes unexpected, insights. They have been able, for example, to make start-up and shutdown management of processes and machines more efficient, improve compressor control and manage peak loads."

Continuous Compressed Air Monitoring

The SICK FTMg is a multifunctional flow sensor that enables the measurement of live values for compressed air energy in kWh. Data from the FTMg flow meter is presented via the SICK FTMg Monitoring App, which has been developed from SICK's proven Industry 4.0 Monitoring Box condition monitoring platform. As well as values for pressure, temperature, flow velocity, mass flow rate and volumetric flow rate in real time, it provides totals for energy use, volume and mass over a pre-defined period.

The user-friendly dashboard makes it easy to interpret data to detect leaks or overconsumption and to look for changes and trends. Email alerts can be set up for maintenance reminders or to give pre-defined warnings with job recommendations, for example when data strays beyond pre-defined limits. Users can drill down to identify costs, for example for individual production centres or by shift.

Secure Connectivity

Up to eight FTMG flow meters can be configured via each SICK Smart Services Gateway, which collects data, aggregates and encrypts it before sending it securely via the customer's own IT infrastructure through a firewall to the SICK cloud. Alternatively, it is possible to by-pass the IT infrastructure by using mobile communications over 3G or 4G. Individuals then have access through a personal SICK ID from any device with a web browser.

The SICK FTMg, which stands for Flow Thermal Meter for inert gases, uses the dynamic calorimetric principle for precision measurement, enabling it to detect even the smallest changes reliably. Its straight measurement channel design ensures highly-accurate measurement with almost zero pressure loss as gases flow through the sensor during measurement.

SICK also offers alternatives for customers who do not require the FTMg Monitoring App. For customers wishing to integrate SICK FTMg flow meters into their own IT systems, one or more devices can be used with an IIoT gateway, such as the TDC-E from SICK, for data pre-processing and integration into customer-specific MES, cloud or energy management systems. The FTMg flow sensor also features an onboard web server or a variety of Industrial communication outputs. This flexibility in communication technology enables easy integration into existing control or data acquisition architectures.

www.sick.co.uk

Issued on behalf of: SICK (UK) LTD, Waldkirch House, 39 Hedley Road, St Albans, Hertfordshire, AL1 5BN.