

Energy efficiency module MSE6-E2M

FESTO



World's first

Highlights

- Zero compressed air consumption in standby mode
- Monitors the system for leaks
- Ensures maintenance in the event of leaks
- Enables effective monitoring of relevant process data

Saving energy is easier than ever before thanks to the MSE6-E2M. It helps end users to achieve their energy efficiency and sustainability targets and improves the efficiency of machinery for OEMs. The intelligent service module rigorously monitors and regulates the compressed air supply in new and existing systems – fully automatically.

Standby: compressed air off!

If the E2M detects a standby status on the basis of predefined data, the compressed air supply is shut down automatically – similar to energy-saving start-stop systems in cars. The compressed air consumption drops to zero during these pauses – even if the system has leaks! The compressed air supply can be easily restarted at the machine's control panel.

Leakage measurement

When the compressed air supply is shut down, the E2M checks the system for leaks. Rapidly dropping pressure indicates excessive leakage. A notification

is then sent to the system operator. For the first time, the air preparation system is monitoring, diagnosing and notifying maintenance teams based on actual requirements.

Condition and system monitoring

The E2M enables simple energy monitoring by continuously providing process data. Connected to the machine's control system via Profibus, the E2M cyclically exchanges important data such as flow rate, pressure and consumption, which can be seen and operated via the control panel.

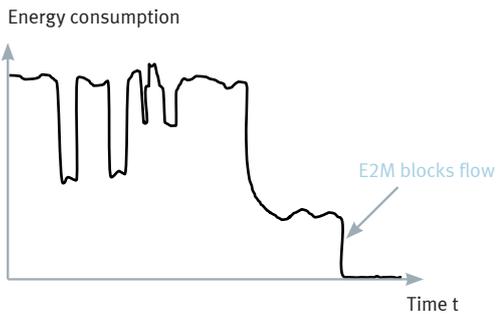


Winner of 2015 Automation Award
Standard components and sensors

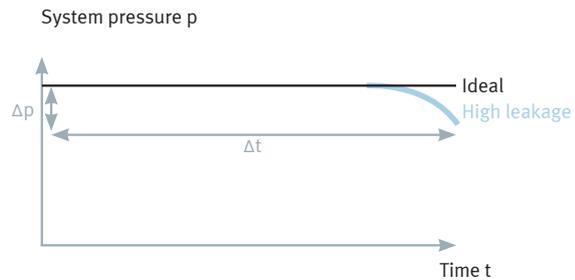
Energy efficiency module MSE6-E2M

Unique: the first intelligent energy efficiency module of its kind

Function 1: Automatic shut-off of the compressed air in the standby mode



Function 2: Automatic detection and notification of leakages



Function 3: Condition monitoring made easy

The following three measured values are continuously available:

- 1 Pressure, 16 bit
- 2 Flow rate, 16 bit
- 3 Consumption, 16 bit

Different units can be selected, e.g. consumption can be measured in litres, cubic metres or scfm.

This powerful information makes easy energy monitoring possible at the machine level:

- Is the system consuming more now than it did a month ago?
- How much compressed air is required per batch?
- Is the pressure set correctly?
- If the machine fails, what were the flow rate and pressure values at the time of the problem?

Data are transmitted online via fieldbus.



Fieldbus node
CPX-FB13



CPX-FB34/35-
PROFINET



CPX-FB33-
PROFINET

Technical data	
Pneumatic port	G1/2"
Operating pressure	4 ... 10 bar
Nominal flow rate	4400 l/min
Fieldbus interface	PROFIBUS DP, PROFINET, Ethernet/IP, Modbus TCP/IP
2/2 normally open valve function	
Flow sensor measuring range	50 ... 5000 l/min
Pressure sensor measuring range	0 ... 14 bar
Nominal operating voltage	24 V DC
Temperature range	0° C ... +50° C
Protection class	IP65
CE marking	Yes

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