

A mass flow controller that is silent, fast and cost-effective

Proportional flow control valve VEMD from Festo precisely controls air and gases

For the gas supply of bioreactors and fermenters or for dosing protective gases - the VEMD mass flow controller from Festo delivers maximum control dynamics and costs significantly less than comparable solutions for the control of air, oxygen and inert gases.

In many industrial applications, the flow of air or other gases must be regulated. In food production, biotechnology or the chemical industry, the control of oxygen, air, CO₂ and inert gases is an integral part of daily production. As a rule, the gases must be dosed precisely and with a high degree of repeat accuracy. The high demands on reliability and robustness are just as important as cost efficiency. The new VEMD offers both: high dynamics at an affordable price.

As part of the biologization of our economy, biotechnological production processes are increasingly coming into focus. The VEMD proportional flow control valves are ideal for use in bioreactors and fermenters. They supply the microorganisms and cell cultures with the required gases. The devices are also suitable for applications where initial inertization of a container is necessary or where a protective atmosphere of nitrogen or carbon dioxide is required as part of production processes. Typical processes in a protective atmosphere include filling processes in the pharmaceutical, chemical and food industries. It is also used in additive manufacturing, commonly referred to as 3D printing.

Proportional control

The gas flow at the output of the mass flow controller can be easily adjusted and linearly controlled using a setpoint specification. Various analog (0-10V, 1-5V, 4..20mA) and digital interfaces such as Ethernet/ModBus TCP and RS232/RS485 with ModBus RTU are available for this purpose. Further advantages of the VEMD mass flow controller are fast control, noiseless operation, compact and lightweight design, long service life and low energy consumption.

Dynamic and precise

Thanks to the integrated control circuit with thermal sensor, the VEMD works precisely and dynamically. It reacts quickly to setpoint changes. The VEMD is available in flow ranges of 100 l/min and 200 l/min. The current flow rate value is transmitted to the higher-level control system as an output value. It can optionally be read off the display on site at any time. Further variants with 50 l/min. as well as 10 l/min. and 20 l/min. will be available on the market in the course of 2024.

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VEMD proportional flow control valve

The proportional flow control valve VEMD is a mass flow controller that is silent, dynamic and affordable, and thus ideal for use in the life sciences, food production or biotechnology.