

Festo VTOC Valve Terminal Enhances Valve Control in Semiconductor Fabrication

The compact VTOC features 48 pilot valves controlling up to 96 process control points in gas box applications.

ISLANDIA, N.Y. June 2, 2026 — As semiconductor gas box designs incorporate more process lines and control points, the number of pilot valves required to manage critical gases increases. Typical valve terminals with limited capacity force OEMs to use multiple units, increasing panel space, wiring complexity, build time, and system cost.

Festo offers the VTOC valve terminal designed for high-density semiconductor applications. The VTOC features 48 valve stations – twice the standard VTOC capacity – within a single compact footprint unit. Each valve slice controls two processes, enabling up to 96 process control points per unit.

Rather than extending the terminal lengthwise to increase valve count, Festo redesigned the VTOC terminal to integrate two compact rows of valves, allowing the terminal to deliver higher control capacity while maintaining a compact form factor ideal for conserving control panel space.

The VTOC uses swappable interface modules to support Ethernet/IP, PROFIBUS, EtherCAT, Modbus TCP, and CC-Link, allowing the same valve terminal to be used across control environments. This design supports consistency across builds, reduces engineering overhead, lowers inventory, and promotes efficiency through familiarity with a standard component.

With each valve rated for up to 40 million operations, the VTOC delivers a long service life in high-duty environments. The modular valve design enables fast identification and replacement of individual valves, reducing maintenance time and minimizing disruption to critical processes.

For more information on the VTOC valve terminal for gas box applications, contact a Festo sales representative or an authorized distributor and visit the [Festo semiconductor industry page](#) for the company's range of solutions. To learn more about Festo's automation solutions, engineering tools, and services, visit www.festo.com.

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VTOC

Each valve slice on the Festo VTOC controls two processes, enabling this compact valve terminal to handle up to 96 process control points.

About Festo US

Festo is a leading manufacturer of pneumatic and electromechanical systems, components, and controls for process and industrial automation. For 100 years with more than 50 in the U.S., Festo Corporation has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Through advanced technical and industrial education, Festo Didactic Learning Systems and its partners prepare workers for current and future manufacturing technologies.