

Festo Names Its Top Five Air Supply Safety Control Products – A Surprising Mix of Simple and Sophisticated Components

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The most popular Festo air supply safety products place a spotlight on how OEMs approach turning off air pressure, exhausting pressure in an emergency, and safely restoring pressure.

HAUPPAUGE, NY, (October 29, 2014) — Festo has identified its five most popular <u>air supply safety products</u>, which run the gamut from simple on/off valves to emergency venting systems with redundancy. A range of options for air supply control is vital for safely controlling pneumatic energy during maintenance, operation, and emergency situations.

"The point of identifying the top five most popular air supply safety products from Festo is to pinpoint where OEMs actually focus on safety, not only for emergency shutdown but in day-to-day operation of the machine," said Mike Guelker, Product Manager – Actuators, Air Supply, and Accessories. "The top-five list disseminates practical application information and broadens the appreciation of just how diverse and, at times, simple, pneumatic safety control products can

Festo Corporation

395 Moreland Road P.O. Box 18023 Hauppauge, NY 11788 Tel: 631.435.0800 Fax: 631.231.9215 www.festo.com/us be. Controlling air supply is the starting point in safety for pneumatic systems as the following products demonstrate."

One: Tamper-proof shut-off valve (HE-LO)

Large, rugged, and brightly colored yellow, the HE-LO tamperproof "Lock Out Tag Out" shut-off valve manually shuts off and vents
pneumatic systems. While the tamper proof valve may be used in
emergency situations, its main application is during maintenance of the
machine to ensure no active pressure is present. Once pressure has
been eliminated, maintenance personnel insert a lock or hasp in the
valve, making it impossible to restore pressure while the lock is in
place. Depending on pneumatic configurations on the machine, there
may be several tamper-proof valves applied per machine. These
valves are OSHA compliant.

Two: On-off valve with piston position sensing (HEE-D-SA)

Unlike the manually operated tamper-proof valve, the HEE-D-SA solenoid actuated on-off valve with piston position sensing is electronically controlled by a PLC. These units sense the position of the piston and confirm the valve is either on or off. Other electronically controlled pneumatic on-off valves do not offer this feedback. Position sensing provides an extra margin of safety monitoring, and the on/off valve can be integrated into a system to achieve a higher category safety rating. Furthermore, these Festo units mount directly to air preparation modules for easier and more straightforward installation.

Three: MS6-SV-E emergency quick exhaust

The MS6-SV-E is the type of unit that most people think of when they visualize a pneumatic safety product. When an emergency stop switch is activated by a penetrated light curtain or an open guard gate or door, the PLC controlled units exhaust air from the system at a rate up to 9,000 liters/minute – effectively removing pneumatic pressure. The MS6-SV-E is a redundant system that meets safety guidelines under ISO 13849-1.

The MS6-SV-E also protects against unexpected startups and provides for safe pressure buildup. In order to startup, a unit must receive two signals from the PLC that are offset by milliseconds.

Offsetting the signals prevents startup due to a short circuit. Once the MS6-SV-E receives the two enable signals, it slowly allows pressure to build in the system so that actuators safely complete the cycle that was interrupted by the emergency shut off.

The MS6-SV-E comes standard with built-in diagnostics, freeing the OEM from having to provide its own diagnostic solution. The units are certified by a third party to meet Performance Level e/Category 4, which also saves considerable time and expense for the OEM. These units are designed to be integrated into the modular MS Series air preparation system for easier installation.

Four: Piloted check valve (HGL)

When air pressure is turned off, pneumatic pistons facing up may retract back into a cylinder and pistons facing down may fully extend. These movements may cause damage to the machine, part, and/or people. The HGL piloted check valve retains pressure in the cylinder, stopping it and holding it in place. Some models, the VBNF for example, come standard with a manual override, which allows maintenance personnel to evacuate air from the cylinder when it is judged safe to do so. Piloted check valves are useful for both emergency situations and for safety during maintenance.

Five: GRLA-SA tamper-proof flow control valves

Flow control valves are simple screwdriver adjustable needle valves that control air flow – open it up for more air flow and dial it down for less air. The potential problem with flow control valves is that operators and maintenance personnel may tinker with the valve settings for on-the-fly adjustments to air flow. Changes in air flow may appear to make the machine run faster or perform better, but in actuality can damage parts by increasing wear and even causing unexpected safety problems. The GRLA-SA provides an ingenious solution – a spring pin protects against the unauthorized resetting of volumetric flow rate. It is as simple as that.

These and other Festo products are described in a comprehensive and informative 80 page safety products and guidelines brochure. Future Top

Safety Products news releases will describe actuators, drives, safety controllers, and the Festo SISTEMA database.

For more information on Festo <u>safety solutions</u>, call Festo at 800-993-3786 and visit http://www.festo.com/us.

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About Festo

Festo is a leading manufacturer of pneumatic and electromechanical systems, components, and controls for process and industrial automation. For more than 40 years, 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.

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