

Safety Exhaust Double Valve MCSE Series

Internally Monitored Redundant Valve with Integrated Soft-Start

A modular safety valve that unites the well proven ROSS® double valves technology with an innovative onboard soft-start capability that allows gradual introduction of air to the system when the valve is energized. The valve can be adjusted to provide slower or faster buildup of system pressure, depending on the ideal setting for your application, or it can be disabled if not needed.

This advanced design helps ensure safer startups, reduces risk of machine damage and enhances uptime.

MCSE Valve Safety Functions

- Control-reliable energy isolation
- Shuts off pneumatic energy supply and exhausts downstream pressure
- EEZ-ON® Soft-Start function prevents rapid equipment movement at startup
- Integrated safety relay
- Fail-safe shut-off and exhaust even when faulted



Enhanced Safety assists in Standards and Regulations Compliance

The MCSE safety double valve is fulfilling the highest safety requirements, according to ISO 13849-1, Category 4, Performance Level e, and can be easily integrated into existing pneumatic systems. Thus, existing operating systems can be upgraded with the MCSE valve to help comply with safety requirements and regulations for man and machinery. Wiring a new valve into your existing system doesn't need to be complicated or time-consuming, ROSS makes it easy by offering the convenience of preassembled wiring kits and accessories.

The MCSE safety valve includes ROSS' proven redundant 3/2 Normally Closed dual poppet design with internal monitoring, detailed failure diagnosis and indication.

Monitoring and air control functions are integrated into two identical valve elements for convenience and enhanced safety. The MCSE valve locks out upon detection of asynchronous valve element movement and cannot return to normal operation until reset. Reset is accomplished by an electrical reset signal to the valve. The valve rapidly exhausts downstream air pressure when de-energized, removing stored energy for safe access.

Applications:

Up to Cat. 4, PL e

Pneumatic Control Processes
Air Dump/Release

- Door Switches
- Light Barriers
- Safety Module for Emergency Stop Applications

MCSE 3/2 Redundant Double Valves



Poppet Construction – Robust, dirt-tolerant and wear-compensating poppet construction of the MCSE valve provides quick response time capability (start-up time of about 1 second), high flow capacity, and ensures a long service life.

LED Display Indication – Aids troubleshooting, providing information about the signals coming from the safety logic, information about the status of the valve, as well as the information about possible failures.

Due to the internal safety function, the MCSE valve can be used for many applications, up to Cat. 4, PL e. MCSE valve can be connected directly to light curtains without using separate safety relays, therefore this valve is an ideal choice for retrofit solutions.

Air Entry Assembly with MCSE Double Valve

The MCSE safety valve with soft-start is enhanced with a modular mounting design, allowing flexible air entry system assembly. This also streamlines inventory and procurement procedures because only one part number is needed, saving time and resources.



As the global leader in fluid power safety, ROSS works closely with customers to achieve compliance to the various global safety standards. Customers can rely on ROSS safety experts for assistance with any fluid power safety products.