

# ASCO®

## Dynamic Solutions

Leadership and Innovation in  
Valve Products and Valve Systems



# At ASCO, Valve Performance Begins and Ends With People



First of all, it begins with the people we serve. It is from them that we receive the direction and inspiration to pursue the product innovation that is our hallmark.

Next it is the people of ASCO. Our employees possess the power of imagination, innovation, and technical skills that drive customer solutions.

ASCO's history of partnering with our customers to improve their production processes and products has created our success. This heritage of innovation has resulted in an extensive line of ASCO products that

range from two position on/off valves to entire flow control solutions designed to provide thousands of

customer-specific solutions. Whether you need a minor modification of a core product or a complete flow control solution, ASCO's people can help.

Finally, it ends with the people who rely every day on critical industries such as nuclear power, pharmaceutical, medical and analytical instrumentation, pulp and paper, petroleum and chemical, food and beverage, automotive, and packaging to name a few. We are committed to supplying these industries, which rely on the efficiency and reliability of ASCO

products, because what we do truly does affect the world and its people.



[www.ascovalve.com](http://www.ascovalve.com)

# ASCO — Leadership and Innovation in Valve Products and Valve Systems

## **RedHat Solenoid Valves**

Largest selection of 2-, 3-, and 4-way solenoid valves, designed to handle the most demanding fluid control applications

## **ASCO Scientific**

Highest quality micro-miniature solenoid valves and accessories for industrial, medical, and analytical applications

## **Pneumatic Controls**

Directional control valves, air preparation equipment, actuators, and accessories for fluid power applications

## **Valve Monitoring Systems**

Integrated visual indication technology with network communication capabilities for position indication solutions

## **Process Automation**

Pilot valves and control accessories for reliable process solutions

## **Pressure/Temperature Switches & Sensors**

Devices for pressure and temperature monitoring

## **ASCO S Series**

Compact valve solutions for commercial applications

## **Global Approvals**

Third party agency approvals allow our customers to use ASCO products anywhere in the world



## **Our People Support You**

*ASCO is committed to business integrity, while supporting our problem-solving teams with the training and tools necessary to relentlessly improve our products and processes.*



# ASCO<sup>®</sup> RedHat<sup>®</sup>

## NEXT GENERATION

RedHat Next Generation is the future of solenoid valve technology, designed and manufactured to provide significant operational enhancements.

### Designed to Save Money

In addition to enhanced operational features the Next Generation provides cost savings due to power reduction, extended life of electrical components, minimized inventory, and improved reliability in a rugged package.

### RedHat Next Generation Leaps Ahead of Conventional Valve Technology

- Higher DC pressure rating
- 80% reduction in power consumption
- Built-in surge suppression
- 3-year coil warranty
- Class I, Division 2 coils available



# ASCO<sup>®</sup> RedHat<sup>®</sup>

### Greater Selection for a Multitude of Applications

ASCO RedHat brand offers the world's largest selection of 2-, 3-, and 4-way solenoid valves.

RedHat II Solenoid Enclosures are one-piece molded epoxy construction with the magnetic frame molded into the coil. They are offered as general purpose or explosion proof.

ASCO General Service Valves control the movement of air, water, light oil, and inert gas.



## Valves for Virtually any Application

- Wide range of 2-, 3-, and 4-way solenoid and air operated valves
- 1/8 inch NPT to 3 inch NPT
- Control options: normally closed, normally open, universal, and mechanical and manual options
- Other standard options include: alternative elastomers and six choices of electrical connections to the solenoid
- Body materials include: brass, stainless steel, plastic, and aluminum
- RedHat family of on/off valves for air, water, light oil, combustible gas, fuel oil, cryogenic fluids, steam, and high pressure air up to 2200 psi

## Air Operated Valves

ASCO offers two types of air operated valves:

- The angle body piston valve is designed for applications on steam, water, and slurries to provide rugged service
- Pneumatically operated 2-, 3-, and 4-way valves ranging in sizes from 1/8 inch NPT to 2 1/2 inch NPT

## Proportional Valves

- Proportional valves are 2-way valves which will provide an output flow, consistent with an input electrical signal to the coil. Sizes range from 1/8 inch NPT to 2 inch NPT in a brass and stainless steel body, and are available for air/inert gas applications or fluid applications

## Specialty Valves for Combustion and Nuclear Applications

- Hydramotor operated valves to handle commercial & industrial combustion fuel shutoff applications, as well as, water, oil, gas, and steam control applications for the process industry
- 3- and 4-way valves qualified to IEEE specifications for Class 1E Nuclear applications



## Focused on the Future

*As the leader in the design and manufacture of quality solenoid valves, micro-miniature valves, pilot valves, and valve systems; ASCO is committed to bring our customers uncompromising performance and dependability.*

# ASCO<sup>®</sup>SCIENTIFIC<sup>®</sup>

High-quality, micro-miniature valves that provide fluid control solutions for manufacturers of medical equipment and analytical instruments.

- Liquid & Gas Chromatographs
- Hematology Analyzers
- DNA Sequencers/Synthesizers
- Gas Analyzers
- Oxygen Concentrators/Conservers
- Ventilators
- Dental Equipment

## Micro-miniature Solenoid Valves and Accessories

- **General Service Valves and Fittings**  
Long life, low-power miniature solenoid valve
- **Isolation Valves**  
Constructed with inert materials for corrosive media
- **Pinch Valves and Tubing**  
Designed for use with silicone tubing
- **Manifold Assemblies**  
Manifold mount valves for use on standard or custom manifolds





# ASCO® Pneumatic Controls

A diverse range of pneumatic products for various fluid power industrial automation applications

## Directional Control Valves

Miniature, ISO standard, and subbase mounted spool and poppet valves

## Proportional Control Valves

Sentronic proportional pressure regulation by voltage or resistance input variation

## Air Handling Equipment

Modular filter, regulator, and lubricators are easy to configure as individual components or a complete system

## Valve Islands

Multiple valves in one compact assembly in standard operating configurations or addressable over a bus network. Available with AS-interface™, DeviceNet™, and Profibus™ DP

## Cylinders

ISO and VDMA standard rod and rodless cylinders

AS-interface is a registered trademark of AS-International.

DeviceNet is a registered trademark of ODVA.

Profibus is a registered trademark of Profibus International.



## Special Configurations

*Many customers need special configurations or constructions. ASCO has the ability to take standard platforms and modify them to provide a precise solution for fluid control requirements.*



# Valve Monitoring Systems

Valve Monitoring Systems (VMS) have combined the technology of visual indication and network communications.

ASCO VMS work as a cost-effective solution for control and information in a variety of environments. Communication protocols are available with DeviceNet, AS-interface, and Profibus PA.

VMS products have been engineered for improved reliability and safety, while meeting the rugged requirements of the process industry. Products are available in corrosion-resistant, low-copper aluminum or resin constructions, for all environments. All rotary and linear products provide highly visible 360° indication.

ASCO Valve Monitoring Systems readily support upgrades of plant and equipment for seamless process control and data collection.







## Process Automation

ASCO valves and valve system technology are a perfect fit for today's modular, intelligent, and ever-changing plant operations. Factory and process automation rely on quick, seamless data transfer and system response.

### Low Power and Intrinsically Safe

Low Power valves are 2-, 3-, and 4-way valves to be controlled directly from a DCS or PLC. Intrinsically Safe valves are 2-, 3-, and 4-way Inline and NAMUR mount valves providing explosion-proof protection, while reducing power and wiring associated with hazardous locations.

### Bus Compatible Pilot Valves

ASCO products include 2-, 3-, and 4-way, Namur mount and directional control valve islands to operate in installations utilizing bus communications for reduced wiring and/or system performance to increase reliability and uptime.

### Redundant Control System

A system to provide redundant control of critical pneumatically operated systems by integrating monitoring, and voting technology to meet your Safety Integrity Level (SIL).



## Global Support

*Customer application and service solutions are coordinated in ASCO facilities in more than 42 countries. Our global reach provides customers with a wide variety of operating efficiencies not available through other companies.*



# Pressure/Temperature Switches and Sensors

## ASCO Pressure Sensors

ASCO pressure sensors provide accurate measurement and linear electrical output for all applications. Using Micro Electro-Mechanical Systems (MEMs) based technology, the one-piece pressure header provides high accuracy and repeatability over a broad range of pressures and temperatures. Many constructions are available to suit your needs including: Class I Div. 1 explosion proof, Class I Div. 2, wet-wet differential in a single sensor, pressure and temperature in a single sensor, as well as, UL listed general purpose constructions. All constructions are available with a wide range of process connections, pressure ranges, amplified and non-amplified outputs, electrical interfaces, and wetted materials including 316L and Inconel. Keeping with the tradition of ASCO RedHat valves, special constructions are available to fit the most demanding applications.

## ASCO Pressure and Temperature Switches

ASCO pressure and temperature switches are a range of miniature to industrial size switches designed to signal when process media reaches a set point of pressure or temperature. The transducer will operate a mechanical snap switch when the set point has been reached, and will reset when the process media conditions drop below the deadband. Options include fixed or adjustable deadband and a wide range of set points of vacuum to 8000 psi and temperatures of -60° to 640° F (-51° to 337°C).





ASCO commercial application solenoid valves. Developed and engineered with ASCO's global resources. ASCO S Series is a compact solution for air, inert gas, water, light oil, and steam applications.

- DIN connection for easy wiring
- Compact brass bodies
- Encapsulated coils

### 2-Way Valves 1/8" to 2"

- 8261 Series Direct Acting for air, inert gas, noncorrosive liquids, and light oil
- 8238 Series Internally Pilot Operated for air, inert gas, noncorrosive liquids, and light oil

### 3-Way Valves 1/8" and 1/4"

- 8374 Series Direct Acting and Internally Pilot Operated for air, inert gas, and noncorrosive liquids

### Steam Valves 1/8" to 1"

- 8240 Series Direct Acting for hot water and low pressure steam

Options include 15" leads, alternate elastomers, manual operators, and mounting brackets. ASCO S Series can operate in 15° to 125° F ambient temperature locations.



[www.ascovalve.com](http://www.ascovalve.com)

*Provides online catalog, engineering and contact information, and complete information for assistance in sizing and selecting the proper ASCO product. New robust search feature means quick access to an ASCO solution.*



# ASCO Innovation - Providing Solutions and Value

## **ASCO demonstrates expertise in innovative coil design and manufacturing.**

ASCO uses Dupont Zenite® Liquid Crystal Polymer (LCP) Resin as a coil overmolding material. Zenite LCP is a thermoplastic polyester resin that provides corrosion and moisture protection and reduces the use of epoxy, a non-recyclable material. The features of the LCP material, combined with the enhanced Power Management Circuit, create the Next Generation of solenoid coils.

## **ASCO's VMS line combines new technologies to provide value.**

Our patented technology to separate the mechanical setting from electrical enclosure allows maintenance to adjust switch settings, while keeping the facility on-line in a hazardous location.

## **ASCO innovations make electrical connections easier.**

Patented Slip-Lok™ explosion-proof conduit connectors are ideal for installing electrical devices into a conduit line or junction box. This revolutionary connection method saves money and time by reducing installation time, providing a fully listed explosion-proof seal, and the ability to position a valve or other electrical components for easy rotation.

Zenite is a registered Trademark of Dupont Co.



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V7368 R3