tyco®

Fire Valves and System Components



Protecting the world we live in.

Johnson Controls

Safer.
Smarter.
Protection.

The fire suppression products business within Johnson Controls is the world leader in fire protection, helping make buildings safer and smarter.

Our fire suppression solutions deliver an unmatched range of suppression systems, extinguishing agents, fire sprinklers and valves, design software, piping products, fittings, fire-fighting equipment and services that help our customers save lives and protect property. We leverage our global scale and deep expertise to drive innovation, advance safety and solve the unique challenges of customers around the world.

The fire suppression offering includes the market-leading TYCO® product portfolio of fire sprinklers, valves and system components. TYCO® fire valves can be found in facilities and environments as diverse as high hazard industries, critical data centres, financial institutions, schools and universities, hospitals, transportation networks, public works projects and world-renowned museums, amongst others.



FIRE VALVES AND SYSTEM COMPONENTS

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All metric measurements throughout this catalog are based on U.S. standard-to-metric conversions. Metric specifications may vary from country to country.



Model AV-1 Alarm Check Valve

FOR WET SYSTEMS



This Alarm Check valve is designed to automatically actuate electric and / or hydraulic alarms when there is a steady flow of water into the system that is equivalent to the discharge rate of one or more sprinklers.

The Model AV-1 Alarm Check Valve Trim includes pressure gauges to monitor system pressure conditions, a bypass check valve, a main drain valve, and an alarm test valve. The bypass check valve is designed to reduce the possibility of false alarms by permitting slow as well as small transient increases in water supply pressure to be passed through the system without opening the waterway clapper.

Features & Benefits

- Available pre-assembled with modular trim
- Horizontal or vertical installation for increased flexibility
- Working water pressure range 20 to 300 psi (1,4 to 20,7 bar)

Available Sizes

- 2 ½" (DN65)
- 4" (DN100)
- 6" (DN150)
- 8" (DN200)

Applications

Residential, mixed-use properties, retail, light commercial

Technical Datasheet(s)

TFP910 (Global)
TFP990 (European)

Approvals

FM APPROVED
c UL us
VdS
LPCB



Model DPV-1 Dry Pipe Valve

FOR DRY SYSTEMS



The DPV-1 features a unique offset clapper that allows for a simple, compact valve that helps minimize installation and service labor. This differential-style valve can help deliver water faster in comparison to lower-pressure alternatives in large volume systems by resisting water entering branch lines.

Features & Benefits

- Simple reset procedure through the elimination of priming water
- Compact, pre-trimmed and semi-assembled, easy to operate valve trim
- 250 psi (17,2 bar) pressure rating
- Ductile iron construction for a lightweight valve to minimize shipping cost
- A variety of inlet and outlet connections

Applications

Unheated warehouses, parking garages, store windows, attic spaces, loading docks

Available Sizes

- 2 1/2" (DN65)
- 3" (DN80)
- 4" (DN100)
- 6" (DN150)

Technical Datasheet(s)

TFP1020 (Global)
TFP1090 (European)

Approvals

FM APPROVED

c UL us

VdS

LPCB



DV-5A Deluge Valve



The DV-5A deluge valve is a streamlined successor to the original DV-5 deluge valve. Signature benefits were combined with simplified trim, a lower pressure drop and higher pressure rating.

The deluge valve is designed to be activated by a fire detection system installed in the same locations as the nozzles. When this occurs, water discharges from all open sprinklers or nozzles.

Features & Benefits

- One moving part for simple maintenance and operation
- External reset
- 300 psi (20,7 bar) pressure rating
- Reduced footprint compared to the DV-5 deluge valve

Applications

Industrial Plants, Oil & Gas Platforms, Storage Facilities, Aircraft, Transportation Tunnels

Available Sizes

- 1 1/2" (DN40)
- 2" (DN50)
- 3" (DN80)
- 4" (DN100)
- 6" (DN150)
- 8" (DN200)

Available in various connection styles such as Groove x Groove, Flange x Flange and Threaded Ports for 1 ½ Inch and 2 Inch sizes

Technical Datasheet(s)

TFP1325 (Global)

Note: Datasheets available for other actuations

Approvals

FM APPROVED

c UL US

VdS

LPCB



DV-5A Deluge & Preaction
SYSTEMS



The DV-5A valve offers a range of options for both deluge and preaction systems.

Deluge Options
Wet, Dry, Electric, Remote Resetting, Remote Reset Pressure Reducing

Single Interlock Preaction Options
Wet, Dry, Electric

Double Interlock Preaction Options
Electric/electric, Electric/pneumatic, Type A

Features & Benefits
- Streamlined trim allows for easy access during testing and maintenance
- Integrated alart port eliminates check valve in preaction systems
- BVF-300 standard on pre-trimmed models (ask your representative for details for your region)

Applications
Flammable Liquid Storage and Handling, Aircraft Hangars, Data Centers, Museums, Libraries, Archives, Cold/Cryogenic Storage

Available Sizes
- 1 1/2" (DN40)
- 2" (DN50)
- 3" (DN80)
- 4" (DN100)
- 6" (DN150)
- 8" (DN200)

Available in various connection styles such as Groove x Groove, Flange x Flange and Threaded Ports for 1 1/2 Inch and 2 Inch sizes.

Technical Datasheet(s)
TFP1306 (Global)
TFP1325 (Global)
TFP1425 (Global)
TFP1450 (Global)
TFP1485 (European)

Approvals
FM APPROVED
c UL us
VdS
LPCB



DV-5A Deluge Valve

APPLICATIONS

DV-5A valves can be found at the heart of many systems, including the Tunnel Protection System and Duct Deluge System (DDS) solutions.



TYCO® Model TN-17 and TN-25 Horizontal Spray Nozzles are designed, tested, and approved for integration into deluge water spray fire protection systems, ideally suited for the road tunnel application.

The Model TN-17 and TN-25 Nozzles are designed for long-term reliability in the challenging tunnel environment and have performed successfully in some of the most rigorous, full-scale fire testing ever conducted. With the ability to provide extended coverage, these nozzles are designed to allow for a single pipe to run the length of a tunnel, compared to traditional designs that use multiple pipes in order to provide sufficient coverage.

Features & Benefits

The low discharge pressure and resulting large droplets produced by the Model TN-17 and TN-25 nozzles easily penetrate hot gases during a tunnel fire, enhancing fuel source cooling and pre-wetting of adjacent surfaces.

Minimizes total cost of ownership:

- Allows high level of protection from just one pipe
- Allows for integration of deluge and hydrant water supplies
- Simplifies inspection and maintenance

Applications

Transportation Tunnels

Technical Datasheet(s)

TFP850
TFP852

Approvals





The TYCO® Duct Deluge System (DDS) is specifically designed for the protection of ventilation ductwork handling corrosive gases, assisting in the fire suppression and potential extinguishment in ventilation ductwork constructed of plastic material.

The DDS limits the amount of down-time that routine inspection, maintenance and even fire damage would incur.

The DDS is intended for use in plastic ventilation ductwork constructed of Fiber-Reinforced Plastic (FRP), Polyvinyl Chloride (PVC) or Polypropylene (PP), handling “extremely” corrosive environments, as defined by FM Data Sheet 7-78.

Features & Benefits

- TYCO® DN-5 Corrosion Resistant Duct Nozzle
- TYCO® Red-E Cabinet
- Protectowire Linear Heat Detection
- FlexHead Duct Mounting Hardware

Applications

Steel Manufacturing, Copper, Lead or Zinc Mineral Processing, Coal Power Generation, Semiconductor Fabrication, Pulp and Paper Processing

Technical Datasheet(s)

TFP670

Approvals



Red-E Cabinet

The TYCO® RED-E Cabinet is a pre-assembled, pre-wired, and pre-tested fire protection valve package enclosed within a free-standing, 14-gauge steel cabinet designed to occupy minimal floor space.



Features & Benefits

- Forklift compatible and industrial-grade rollers for mobility
- Moveable magnetic light strips allow clear interior visibility
- Fully-hinged and removable double-doors provide convenient internal access
- Extendable compressor stored at the bottom of the cabinet
- Features the DV-5A valve with one-piece diaphragm for simple maintenance and quick external reset
- Optional seismic kit

Applications

Tunnels, Industrial/Mining, High rise buildings, Parking garages, High-security applications

Applications

- 1 1/2" (DN40)
- 2" (DN50)
- 3" (DN80)
- 4" (DN100)
- 6" (DN150)
- 8" (DN200)

Technical Datasheet(s)

TFP1301 (Deluge)
TFP1401 (Preaction)

Approvals

c UL us

FM APPROVED



Quick Opening

DEVICES



TYCO® Model ACC-1 Dry Pipe Valve Accelerator

The Model ACC-1 Accelerator is a quick opening device intended for attachment to the 2, 2 ½, 3, 4 or 6 inch Model DPV-1 Dry Pipe Valve. The Model ACC-1 Accelerator reduces the time for valve operation following the operation of one or more auto-matic sprinklers. The Model ACC-1 Accelerator automatically adjusts to both small and slow changes in system pressure, but trips when there is a rapid and steady drop in pressure (as in the case of sprinkler operation). Upon tripping, the Accelerator transmits system air pressure to the intermediate chamber of the Model DPV-1 Dry Pipe Valve. This intends to neutralize the differential pressure holding the Model DPV-1 Dry Pipe Valve closed and permits it to open.

Features & Benefits

- Unique positive action
- Internal anti-flood device
- Seals and latches immediately without waiting for pressure build-up

Applications

European Conformity Valve Trim

Technical Datasheet TFP1112

Approvals





TYCO® VIZOR Electronic Dry Pipe Accelerator (EDPA) - US only

The TYCO® VIZOR Electronic Dry Pipe Accelerator is a quick opening device intended to reduce the operating time of dry pipe valves following operation of one or more automatic sprinklers. Unlike traditional mechanically operated quick opening devices, the VIZOR accelerator is a microprocessor-based, electronic, quick-opening device. The VIZOR accelerator automatically adjusts to both small and slow changes in system air pressure, but trips when there is a steady drop in system air pressure upon sprinkler operation.

Features & Benefits

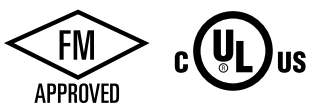
- Faster trip time delivers water sooner
- Two pressure readings every second reduce false trips
- Push-button test and reset
- Simple design reduces complications during install, test and reset process
- Built-in low pressure and high pressure alarm supervision
- Battery back-up in the event of a primary power failure

Applications

Quick opening device for Dry Pipe Systems

Technical Datasheet TFP1105

Approvals





TYCO® Model QRS Electronic Accelerator

The Model QRS Accelerator is a quick opening device intended to reduce the operating time of a dry pipe valve in a dry pipe system or an automatic control valve (deluge valve) in a double interlock electric/electric preaction system. The control panel for the QRS may be used with up to four QRS switches for one to four system risers. The Model QRS Accelerator utilizes a unique system air pressure monitoring device that continuously samples air pressure twice per second.

The Model QRS Accelerator auto-matically adjusts to both small and slow changes in the system pressure, but trips when there is a steady drop in pressure (as in the case of sprinkler operation).

Features & Benefits

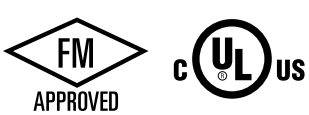
- Operation of a dry pipe or preaction valve within four seconds
- One Releasing Panel can control up to four dry pipe systems or one double interlock pre-acton system
- Built-in low pressure and high pressure alarm supervision
- Proven electric release technology as used for electronically operated deluge and preaction systems
- Battery back-up in the event of a primary power failure

Applications

Quick opening device for Dry Pipe or Preaction Systems

Technical Datasheet TFP1100

Approvals



Shut-Off
VALVES



BFV-300
Butterfly Valve



Model 05-47
Shut-Off Valve



Resilient Seated Gate Valve
Post Indicator

TYCO® butterfly valves are indicating type valves designed for use in fire protection systems where a visual indication is required as to whether the valve is open or closed.

They are used, for example, as system, sectional, and pump water control valves. They are suitable for installation between ANSI Class 125 or 150 flange, without the need for flange gaskets. For applications requiring supervision of the open position of the valve, the Gear Operators for the Model BFV-N Butterfly Valves are provided with two sets of factory installed internal switches each having SPDT contacts. The supervisory switches transfer their electrical contacts when there is movement from the valve's normal open position during the first two revolutions of the handwheel.

TYCO® Resilient Seated Gate Valves are used in fire protection systems for on/off operation.

The ductile iron body weighs approximately 50% less than conventional cast iron valves, which allows easier handling on site and reduced shipping costs.

The encapsulated EPDM ductile iron Wedge helps with bubble-tight sealing. Valve components are either inherently corrosion ready or protected with fusion-bonded epoxy resin coating and enhanced UV protection in exposed installations.

This valve is one of the lightest, most durable gate valves on the market today. Its design features and material selection criteria fulfill the need for a dependable, long life and easy to operate gate valve.

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Applications
Used in Fire Protection Systems for on/off operation to shut off water supply to the valve. Suitable for most applications.

Technical Datasheet(s) Butterfly Valves
TFP1511 (Grooved End)
TFP1516 (Wafer Style)

Technical Datasheet(s) Gate Valves
TFP1541
TFP1546

Approvals



About Johnson Controls' Building Technologies and Solutions

Johnson Controls' Building Technologies & Solutions is making the world safer, smarter and more sustainable – one building at a time. Our technology portfolio integrates every aspect of a building – whether security systems, energy management, fire suppression or HVACR – to ensure that we exceed customer expectations at all times. We operate in more than 150 countries through our unmatched network of branches and distribution channels, helping building owners, operators, engineers and contractors enhance the full lifecycle of any facility. Our arsenal of brands includes some of the most trusted names in the industry, such as TYCO®, YORK®, METASYS®, RUSKIN®, FRICK®, PENN®, SABROE®, SIMPLEX® and GRINNELL®.

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