FM FIRE-SAFE VALVE ASSEMBLIES & ACTUATORS

Meets API 607 Edition 3 and 4, Factory Mutual FM 7440

Assured Automation
19 Walnut Avenue | Clark, NJ 07066
Tel: 800-899-0553
assuredautomation.com
Order Your Fire-Safe Thermal and Electro-Thermal Shutoff Valves Online!

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FM Fire-Safe Thermal and Electro-Thermal Shutoff Valves:
Fire-Safe Thermal Shutoff Valves provide automatic emergency shutdown to stop the flow of flammable or hazardous media during a fire or emergency. The complete ball valve and butterfly valve assemblies are Factory Mutual (FM) approved. Heat actuated, UL listed thermal links automatically shut off or open the valve at predetermined temperatures. A unique, removable handle allows the valve to be manually operated without affecting the fusible links. The Fire-Safe Shutoff Valve is completely self-contained and uses a spring return so no external electrical power or pneumatic pressure is required for operation.

Two FM/UL-listed links are offered: a thermal and EA electrothermal to connect with a fire alarm panel for remote operation.

Typical Safety Installation Sites:
1. Installed where fuel supply enters a building from an outside storage tank. The Fire-Safe can be alarm activated to stop the flow of fuel into the building whenever a fire occurs within the building.
2. Installed inside a firewall and alarm activated to pressurize water into sprinkler pipes to extinguish fire when the fire occurs outside a building.
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FM Fire-Safe valve assemblies and actuators in this catalogue are manufactured by Essex™ Industries
Thermal Fire-Safe Ball Valve Assemblies are Factory Mutual (FM) approved and combine the characteristics of a manual ball valve with the added safety of an automatic shut-off. Heat actuated, U.L. listed thermal links automatically shut off or open the valve at predetermined temperatures. A unique, removable handle allows the valve to be manually operated without affecting the fusible links.

The thermal fire-safe ball valve assembly, ranging in size from 1/4" to 4", is available in a variety of metals, including stainless steel, carbon steel, monel, Inconel, hastelloy B & C, alloy 20, copper and brass.

All thermal links are U.L. listed and are available in the following temperatures: 165°F (74°C), 212°F (100°C), 286°F (141°C), 360°F (182°C) and 500°F (260°C).

Fire-Safe Ball Valve Assemblies are available with the following connection configurations: threaded; socket-weld; butt-weld; and flanged.
Electro-thermal Fire-Safe Ball Valve Assemblies are Factory Mutual (FM) approved at 165° F (74° C) and are equipped with an electro-thermal link that reacts when subjected to heat or to a low-power electrical impulse.

Sizes range from 1/4" to 4", and are available in a variety of metals, including stainless steel, carbon steel, monel, Inconel, hastelloy B & C, alloy 20, copper and brass.

The operating range is 6-30 VDC or VAC. Requiring less than 0.2 amps of power, .5 ms at 24 V, the unit may be used with similar circuitry such as electrical signaling systems which are activated by heat, smoke, gas, flame-energy, maximum temperature or rate of temperature rise. Units are also available at 212° F (100° C) or 255° F (124° C) that are not U.L. listed.

Fire-Safe Ball Valve Assemblies are available with the following connection configurations: threaded; socket-weld; butt-weld; and flanged.
Thermal Fire-Safe Shut-off Butterfly Valve Assemblies include an FM approved actuator on a fire-safe butterfly valve. They are designed to meet the requirements for plant applications where flammable fluids are piped and controlled, such as in the petroleum or process industries. When used in conjunction with high performance butterfly valves having a resilient/metallic seating arrangement, the patented Thermal Actuator (TA Series) has the ability to shut-off in the event of fire or a hazardous situation.

**Note:** Butterfly Valves cannot be manually operated without removing the spring-loaded canister.

**Valve Construction Materials:**
- **Body:** Carbon Steel or 316 Stainless Steel
- **Disc:** 316 Stainless Steel
- **Shaft:** 17.4 PH or 316 Stainless Steel
- **Seal:** TFE/316 Stainless Steel
- **Shaft Seal:** Graphite

*Other body, disc shaft and seat materials are available.

### Approximate Dimensions (inches)

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<th>A</th>
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<th>D</th>
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### Cv Values (gpm)

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Drawing Shown: Jamesbury 8" F815L Butterfly Valve Thermal Link
**Electro-thermal Fire-Safe Shut-off Butterfly Valve**

**Assemblies** include an FM approved actuator with an electro-thermal link added to the list of features of the thermal version. The electro-thermal link provides for a means of remote actuation typically achieved using a gas or smoke detector.

Spare actuators can be purchased separately. Assembly and disassembly manuals are available upon request.

**Note:** Butterfly Valves cannot be manually operated without removing the spring-loaded canister.

**Valve Construction Materials:**
- Body: Carbon Steel or 316 Stainless Steel
- Disc: 316 Stainless Steel
- Shaft: 17.4 PH or 316 Stainless Steel
- Seal: TFE/316 Stainless Steel
- Shaft Seal: Graphite

*Other body, disc shaft and seat materials are available.

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Drawing Shown: Jamesbury 8” F815L Butterfly Valve Thermal Link
3-Way Multi-port Ball Valve Assemblies are fusible link actuators designed for use on 3-way multi-port ball valves. Capable of reacting to heat, smoke or gas leaks, this system will shut off and vent the air supply to a pneumatic spring return actuator allowing it to close larger fire-safe valves.

Choose from one of the flow plans below or call for alternative patterns to meet specific application needs.

Available valve sizes:
1/4", 3/8", 1/2", 3/4", 1", 1 1/4", 1 1/2" and 2".

**Features**
- All stainless steel valve construction
- 800 WOG rating
- Threaded ends
- Standard port
- Closing temperatures - 165°F (74°C), 212°F (100°C) and 286°F (141°C)
Spring-Return Handles provides reliable automatic closing/opening of manual ball valves. The handles may be held in the operating position and the spring will automatically return the valve to the fail position upon release. They can be mounted for either spring-to-close or spring-to-open operation. The spring is housed in a steel enclosure and provides quick cycling of the valve to the fail position upon release of the handle. Sizes range from ¼" to 4" and are available in Threaded, Socket-Weld, Butt-Weld, and Flanged.

**Available Valve Sizes**

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<th>Code</th>
<th>Size</th>
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<tr>
<td>SA0001X</td>
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<tr>
<td>SA0002</td>
<td>1¼”-2”</td>
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<tr>
<td>SA0003X</td>
<td>2½”-4”*</td>
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* 4” Valve not available in Full Port configurations.
Custom Fire-Safe Valve Actuators are available using customer supplied fire-safe valves*. The actuators retain FM approval and can be purchased as an accessory to the fire-safe valve. This maintains equipment consistency throughout the application.

<table>
<thead>
<tr>
<th>Thermal</th>
<th>Electro-thermal</th>
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<tr>
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<td>Butterfly</td>
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* Valve must be soft seated and either API607 or FM fire rated.
** Actuator sizing and price determined by valve torque.
*** Butterfly valves priced by torque.

Call for more information.
Examples shown are for informational purposes only.
Fire-safe valves and emergency breathing equipment prove useful throughout industrial applications. From process to production, this equipment protects people and products during emergency situations.

**Boiler valve/utility room.**
For prevention of fuel flow from boiler to furnace during an emergency.

**Structure Entry.**
Valve used in two positions to stop flammables from entering structure during emergency.

**Interim Storage Tanks.**
Can be dumped to another location to prevent an explosion.

**Off-load Truck.**
Prevent flammables from being dumped from process lines to the environment.

**Plant.**
Use on process lines to help prevent local damage and loss of equipment.