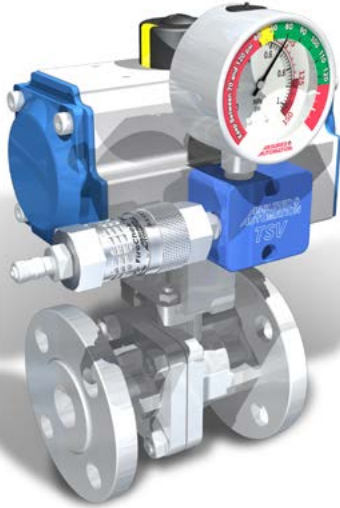




TSV Series Thermal Shutoff Valves



The TSV series Thermal Shut-off valves combine a fire-safe ball or butterfly valve with a pneumatic actuator and the **FM approved FireChek®** valve to form a dedicated stand-alone thermal shut-off valve that will close (or open) at a given temperature (165° F standard). This alternative to fusible link valves can be tested and reset without the need to replace any hardware.

The valve is held open by charging the actuator through a Schrader (check) valve. There is a clearly labeled gauge to indicate the proper pressure range to maintain. TSV's have passed both Mil-std-810G humidity vibration testing procedures through an independent third party. Each TSV assembly is also individually tested by a qualified technician in our ISO certified facility after assembly.

CRITICAL COMPONENTS

1) Fire-Safe Valve



Choice of a ball or butterfly valve. All valves are equipped with special seats and seals to attain the API 607 4 & 5 Fire-Safe rating. All valves are available in carbon or stainless steel.

Ball Valves

NPT: 1/2" to 4"

Socket Weld: 1/2" to 4"

150# ANSI RF Flange: 1/2" to 8"

300# ANSI RF Flange: 1/2" to 10"

Butterfly Valves

150# Lugged ANSI Flange: 2" to 12"

150# Wafer ANSI Flange: 2" to 12"

[visit Fire-Safe Valve web page for details](#)

2) Spring Return Actuator



C Series

These actuators are sized by our engineers specifically for thermal shutoff functionality. Actuators accept 70-125 psi and springs have a generous safety factor included to ensure closure even if the break torque is increased due to the valve not being actuated for a long period of time. These actuators were selected because they are rugged and economical and they have the ISO 5211 and NAMUR mounting patterns. The TSV thermal shutoff module directly mounts to the NAMUR pad.

[visit C Series web page for details](#)

3) FM Approved FireChek®



Inline 3-way Thermal Shut-off

The revolutionary FireChek valve is what provides the functionality of the TSV module. It uses a patented shape memory spring that makes it expand at the designed trigger (165° F) temperature. Air can flow through the valve in one direction to enter the actuator during normal temperatures. After the valve is triggered by excessive heat, it self-actuates and vents the actuator allowing the springs to close the ball or butterfly valve.

[visit FireChek web page for details](#)

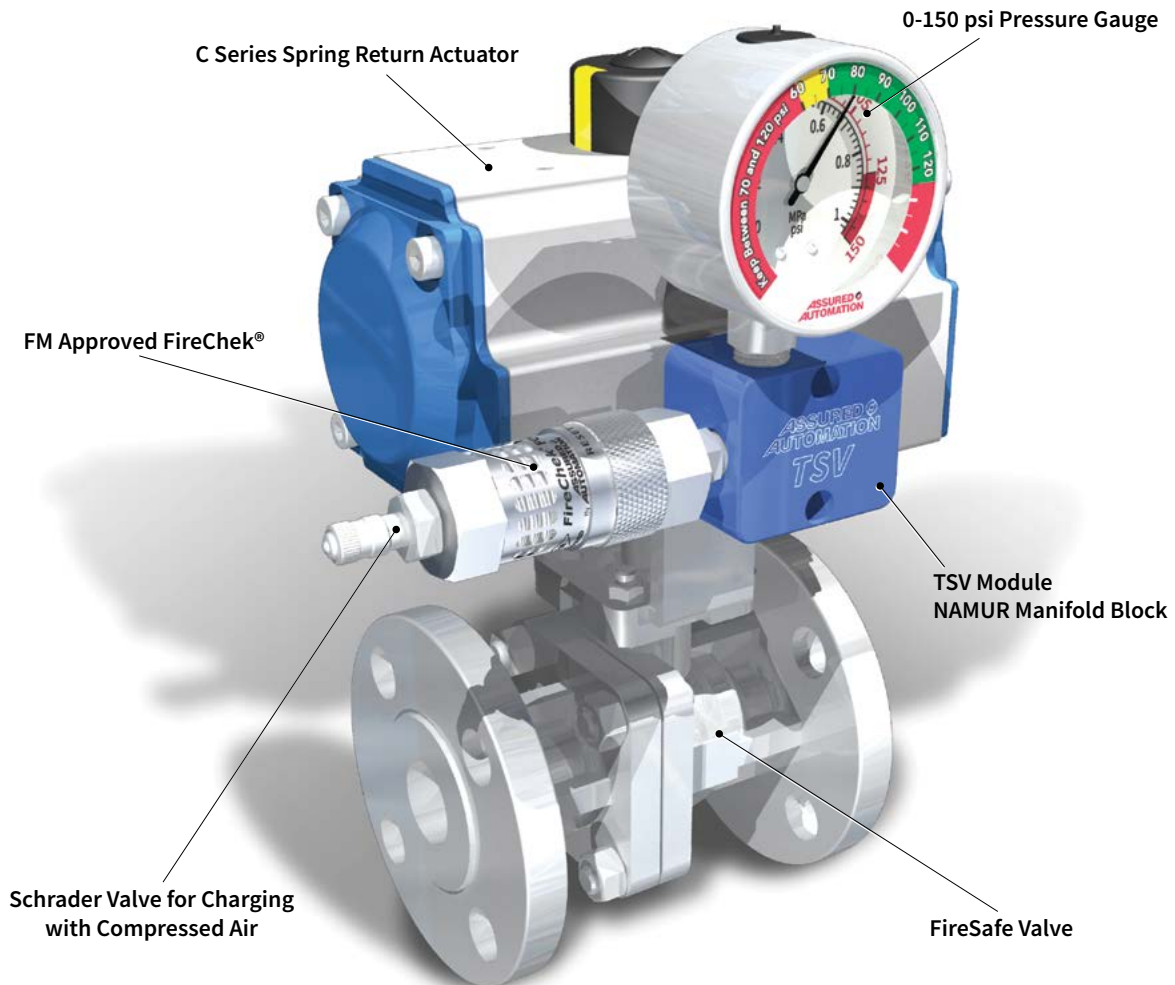


TSV Series



Thermal Shutoff Valves

COMPLETE TSV ASSEMBLY



GENERAL OPERATION INSTRUCTIONS

1. Install the TSV valve assembly into the piping system.
2. Remove the cap from the schrader valve on the FireChek's inlet.
3. Attach the compact air pump or hose from a regulated air source to the schrader valve. Be sure that the pump or regulator is set to 120 psi.
4. Fill the actuator until the pressure gauge reads 120 psi. You will see the actuator begin to rotate via the indicator cap as the pressure rises. Once the actuator rotates the full 90 degrees it will stop rotating but the pressure will continue to rise until it reaches 120 psi.
5. Detach the compressed air source and replace the cap on the schrader valve.
6. The installation of the TSV is now complete. The Fire-safe valve will now be held open (or closed depending on the application) until the ambient temperature around the FireChek reaches 165°F (other temperatures available) at which point, the FireChek will vent the actuator which will force the valve to close.
7. Inspect the pressure using the gauge periodically to be sure that it is in the green zone. If the pressure ever falls below 70 psi and the needle enters the yellow zone of the gauge, re-charge the actuator back to 120 psi.



TSV Series



Thermal Shutoff Valves

ORDERING INFORMATION

TSV-150F- CS - 050-FC4165

Series	Valve	Material	Size	Temp.	Accessories
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VALVE BODY

Series: _____

TSV = Thermal Shutoff Valve

Valve Type: _____

150F = 150# ANSI RF Flanged Firesafe Ball Valve (1/2" to 8")

300F = 300# ANSI RF Flanged Firesafe Ball Valve (1/2" to 10")

HPF-N = NPT Female Connection Firesafe Ball Valve (1/2" to 4")

HPF-SW = Socket Weld Firesafe Ball Valve (1/2" to 4")

HPL = 150# Lugged Style ANSI Flanged Firesafe Butterfly Valve (2" to 12")

HPW = 150# Wafer Style ANSI Flanged Firesafe Butterfly Valve (2" to 12")

Body Material: _____

CS = Carbon Steel

SS = Stainless Steel

Size: _____

050 = 1/2"

075 = 3/4"

100 = 1"

150 = 1 1/2"

200 = 2"

250 = 2 1/2"

300 = 3"

400 = 4"

600 = 6"

800 = 8"

1000 = 10"

1200 = 12"

Trigger Temperature: _____

FC4165 = 165°F (standard)

FC4150 = 150°F

FC4135 = 135°F

Accessories: _____

Limit Switches

We carry a full line of limit switches that can be added for valve position monitoring.

Call to discuss

Make it Easy!
 Try Our **Online Configurator** at:
assuredautomation.com
 With **Instant Pricing** and you can **Buy Now**