

FireBag®

Thermal-activated Shut-off Device for Natural Gas & Propane Metering Applications



*Used for Natural Gas
 and Propane Gas in
 metering applications,
 as well as residential and
 commercial applications*



The FireBag® automatically shuts off the gas supply in the event of a fire, preventing gas from fueling flames and greatly reducing risks for occupants and first responders.

When the FireBag sensor reaches its activation temperature of 203°F–212°F, a metal alloy melts, releasing a closure plug that forms a permanent gas-tight seal. The device closes within 60 seconds, meeting international DIN 3586 Thermal Shutoff Standards, and remains sealed throughout the fire and after cooling, eliminating downstream gas flow.

The FireBag requires no electronics, batteries, or routine maintenance during its service life. Once activated, it must be replaced to safely restore gas service.

CERTIFICATIONS

- Meets and exceeds DIN 3586 thermo activated safety device for gas applications
- European UNI EN 1775 Standard for indoor gas installations
- European Directive 90/396/CEE certification for durability in mechanical or thermal stress
- German DVGW TRGI 86/96 Standard for thermo activated locking systems on gas heaters, water heaters & domestic gas fittings
- German Standard Muster-Feuerverordnung (FeuVo v. 02/95 - edition 09/97) for thermo activated devices
- Italian UNI 7129 Ed 2001 Standard for fire protection and gas supply line components
- Independent testing by GTI certifies the FireBag meets or exceeds requirements per Massachusetts D.P.U. MGL Section 75A of Chapter 164, Ruling #14899 (March 1974) Section 8 (c) and (d).

MAXIMUM OPERATING PRESSURE

150 PSIG

AMBIENT WORKING TEMPERATURE

-40°F to +176°F (-40°C to 80°C)

MATERIALS OF CONSTRUCTION

Housing and Finishing:
Zinc-plated steel

TRACKING & TRACEABILITY

The FireBag fittings include an affixed data-matrix label, as well as a bar code on the packaging, containing natural gas industry Tracking and Traceability information in accordance to ASTM F2897.21.

SPECIFICATIONS

Actuation Temperature:
203°F to 212°F (95°C to 100°C)

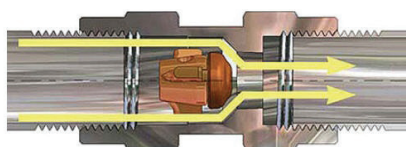
**High Temperature
Resistance (Fire Resistance)***
1,500°F (816°C) for
90 minutes at 150 PSIG

* The FireBag meets and exceeds the DIN3586 High Temperature requirements: 1,200°F (650°C) for 30 minutes at 72.5 PSIG

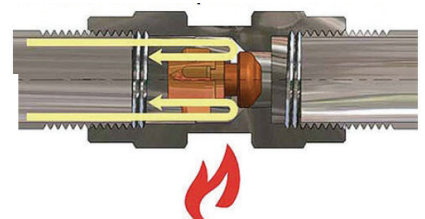
CROSS SECTIONS

The FireBag is triggered when the FireBag sensor temperature reaches 212°F, blocking the flow of gas for at least 90 minutes at the temperature of 1,500°F (816°C).

Inactive, temperature below 203°F



Active, temperature above 212°F



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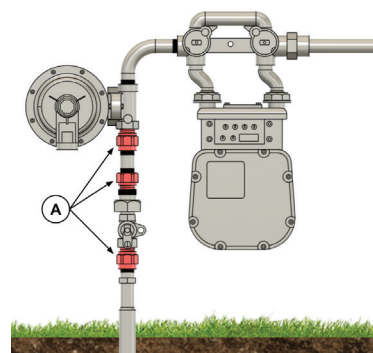
Standard Residential & Commercial Metering Applications

FireBag Thermal Activated Shutoffs are available in multiple inlet and outlet thread configurations and sizes to accommodate the varying piping requirements of a natural gas or propane system. A recommended FireBag piping orientation and design illustration is highlighted as follows:

High-pressure applications: Gas regulators are highly vulnerable in fire conditions. When exposed to extreme heat, they can fail and release gas under high pressure, intensifying the fire. To prevent this, it is critical to shut off the gas supply **prior to the regulator**. For systems with high-pressure gas supply requiring a regulator, it is recommended to install a FireBag upstream of the gas regulator in one of the following options:

A. Optional Locations

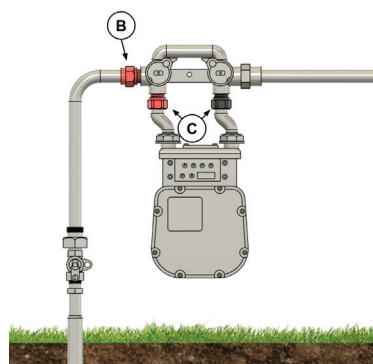
- Inlet of the shutoff valve (FxM)
- Outlet of the shutoff valve (MxF)
- Inlet of the gas regulator (FxM)



Low-pressure applications: Gas meters are susceptible to failure under extreme heat, potentially feeding a fire with high volumes of gas. For meter sets without a gas regulator, it is recommended to install a FireBag upstream of the meter by either:

B. Upstream to the meter bar

- C. In line with the meter swivels & nuts using a FireBag Meter Connection Kit, which can easily be installed on a new or existing meter installation. The FireBag Meter Connection Kit utilizes a FireBag fitting accompanied by a BLANK companion fitting.

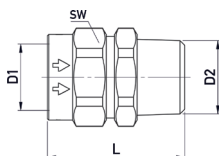


Female to Male Flow Direction

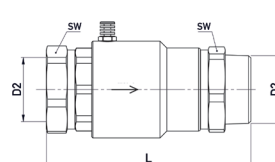
3/4", 1", 1 1/4", 1 1/2", 2"



3/4"



1", 1 1/4", 1 1/2", 2"



SIZE	CONFIG	MODEL NUMBER	DESCRIPTION	L	D1	D2	SW	CV
3/4"	FxM NPT	FBAS20001	TECO FIREBAG 3/4" FxM NPT	1.93"	0.75"	0.75"	1.25"	6.7
1"	FxM NPT	FBAS25001	TECO FIREBAG 1" FxM NPT	2.26"	1"	1"	1.67"	10.4
1 1/4"	FxM NPT	FBAS32003	TECO FIREBAG 1 1/4" FxM NPT	3.62"	1.25"	1.25"	2.00"	25.7
1 1/2"	FxM NPT	FBAS40003	TECO FIREBAG 1 1/2" FxM NPT	3.67"	1.5"	1.5"	2.33"	42.7
2"	FxM NPT	FBAS50003	TECO FIREBAG 2" FxM NPT	4.72"	2"	2"	2.75"	66.7

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Multi-Meter Gas Manifold Metering Applications

Natural gas and propane utilities now are able to add thermal shutoff protection to multi-meter installations at residential and commercial buildings, adding a level of fire safety previously unattainable. In addition to installing a FireBag upstream of the gas regulator, various FireBag configurations are available for the multi-meter gas manifolds downstream of the regulator, where each residence or business has its own gas meter. The FireBag configuration and sizes are available to utilities to meet the following installation options.

A. In line with the Manifold

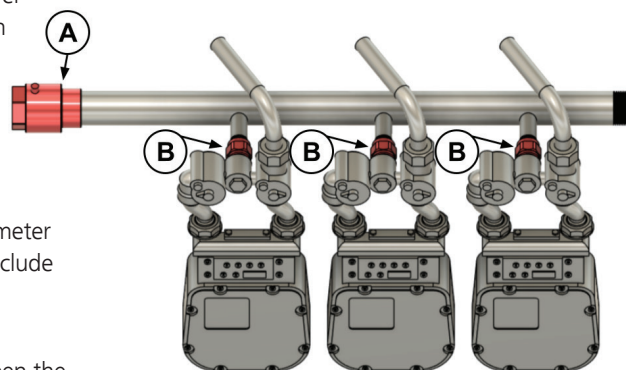
FireBag thermal shutoffs can be installed "prior-to" or "coupled-with" a multi-meter manifold to provide protection to multiple meters using just one device. Sizes include 1¼", 1½" and 2" in Female x Female configurations.

B. In line with the Manifold Nipples to the Meter

Individual Firebag installations place the thermal activated shutoff fittings between the manifold nipple and inlet to the meter bar. Sizes include 1", 1¼" and 1½" NPT Female x Male configurations.

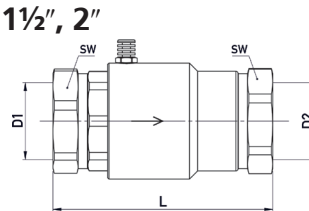
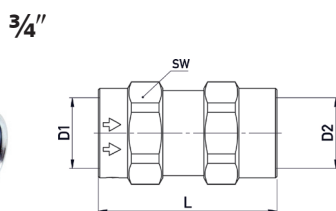
C. In line with the Meter Swivels & Nuts (As shown under Low-Pressure Applications)

In line with the meter swivels & nuts using a FireBag Meter Connection Kit, which can easily be installed on a new or existing meter installation. The FireBag Meter Connection Kit utilizes a FireBag fitting accompanied by a BLANK companion fitting.



Female to Female Flow Direction

¾", 1", 1¼", 1½", 2"



SIZE	CONFIG	MODEL NUMBER	DESCRIPTION	L	D1	D2	SW	CV
¾"	FxF NPT	FBAS20003	TECO FIREBAG ¾" FxF NPT	2.32"	0.75"	0.75"	1.25"	6.7
1"	FxF NPT	FBAS25003	TECO FIREBAG 1" FxF NPT	2.60"	1"	1"	1.67"	10.4
1¼"	FxF NPT	FBAS32004	TECO FIREBAG 1¼" FxF NPT	3.74"	1.25"	1.25"	2.00"	25.7
1½"	FxF NPT	FBAS40004	TECO FIREBAG 1½" FxF NPT	3.94"	1.5"	1.5"	2.33"	42.7
2"	FxF NPT	FBAS50004	TECO FIREBAG 2" FxF NPT	4.37"	2"	2"	2.75"	66.7

Please reference the FireBag® Technical Manual for a full listing of sizing and configurations available.

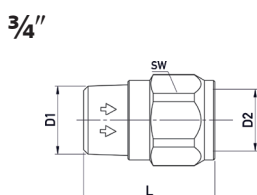
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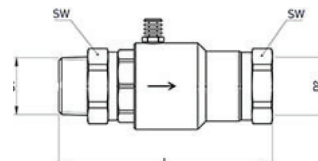
Dimensions & Specifications

Male to Female Flow Direction

¾", 1", 1¼", 1½", 2"



1", 1¼", 1½", 2"



SIZE	CONFIG	MODEL NUMBER	DESCRIPTION	L	D1	D2	SW	CV
¾"	MxF NPT	FBAS20002	TECO FIREBAG ¾" MxF NPT	2.30"	0.75"	0.75"	1.25"	6.8
1"	MxF NPT	FBAS25002	TECO FIREBAG 1" MxF NPT	2.34"	1"	1"	1.67"	10.5
1¼"	MxF NPT	FBAS32001	TECO FIREBAG 1¼" MxF NPT	3.94"	1.25"	1.25"	2.00"	25.7
1½"	MxF NPT	FBAS40001	TECO FIREBAG 1½" MxF NPT	4.13"	1.5"	1.5"	2.33"	42.7
2"	MxF NPT	FBAS50001	TECO FIREBAG 2" MxF NPT	4.37"	2"	2"	2.75"	66.7

Meter Inlet/Outlet Kits (FireBag & Companion Fitting)

½" x ¾", ¾", 1", 1¾"



SIZE	CONFIG	MODEL NUMBER	DESCRIPTION	L	D1	D2	SW	CV
½" x ¾"	MxF NPT	OEAS0001	TECO FIREBAG KIT w/ Companion Blank Fitting ½" x ¾" MxF NPT	2.87"	0.5"	0.75"	1.25"	8.9
¾"	MxF NPT	OEAS0002	TECO FIREBAG KIT w/ Companion Blank Fitting ¾" MxF NPT	2.30"	0.75"	0.75"	1.25"	6.8
1"	MxF NPT	OEAS0006	TECO FIREBAG KIT w/ Companion Blank Fitting 1" MxF NPT	2.34"	1"	1"	1.67"	10.5
1¾"	MxF NPT	OEAS0008	TECO FIREBAG KIT w/ Companion Blank Fitting 1¾" MxF NPT	3.94"	1.25"	1.25"	2.0"	25.7"



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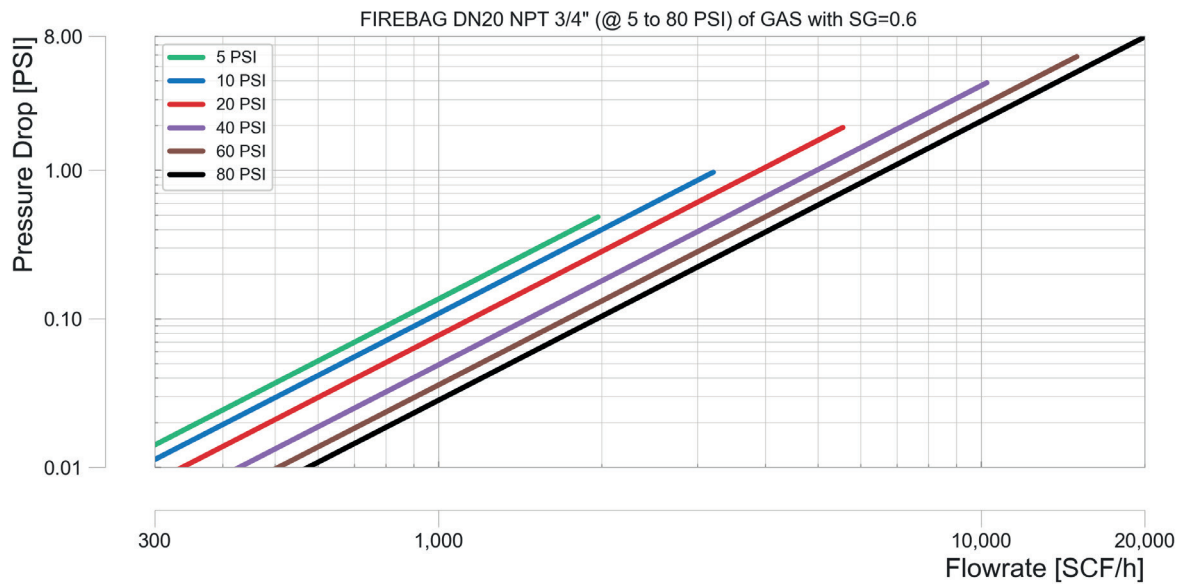
TECO FireBag - Low Pressure Sizing Chart - Natural Gas						
	Pressure Drop (Inches WC) with a 7" WC Delivery Pressure					
Flow Rate	FBAS15003	FBAS20001 FBAS20002 FBAS20003 FBAS20004	FBAS25001 FBAS25002 FBAS25003 FBAS25004	FBAS32001 FBAS32002 FBAS32003 FBAS32004	FBAS40001 FBAS40002 FBAS40003 FBAS40004	FBAS50001 FBAS50002 FBAS50003 FBAS50004
SCFH	1/2" x 3/4"	3/4"	1"	1 1/4"	1 1/2"	2"
50	0.01	0.02	0.01	0.00	0.00	0.00
100	0.04	0.08	0.04	0.00	0.00	0.00
150	0.09	0.16	0.09	0.01	0.00	0.00
200	0.16	0.26	0.15	0.02	0.01	0.00
250	0.24	0.39	0.23	0.03	0.01	0.01
300	0.33	0.54	0.32	0.04	0.02	0.01
350	0.44	0.71	0.43	0.05	0.03	0.01
400	0.56	0.90	0.55	0.07	0.03	0.01
450	0.70	1.10	0.68	0.09	0.04	0.02
500	0.85	1.33	0.83	0.11	0.05	0.02
550	1.01	1.58	0.98	0.13	0.06	0.02
600	1.18	1.85	1.16	0.15	0.08	0.03
650	1.37	2.13	1.34	0.18	0.09	0.03
700	1.57	-	1.53	0.21	0.10	0.04
750	1.78	-	1.74	0.24	0.12	0.04
800	2.00	-	1.96	0.27	0.14	0.05
900	-	-	2.43	0.34	0.17	0.06
1,000	-	-	-	0.41	0.21	0.08
1,100	-	-	-	0.50	0.26	0.09
1,200	-	-	-	0.59	0.31	0.11
1,300	-	-	-	0.69	0.36	0.13
1,400	-	-	-	0.80	0.42	0.15
1,500	-	-	-	0.91	0.48	0.17
1,600	-	-	-	1.03	0.54	0.19
1,700	-	-	-	1.17	0.61	0.21
1,800	-	-	-	1.30	0.69	0.24
1,900	-	-	-	1.45	0.77	0.27
2,000	-	-	-	1.60	0.85	0.30
2,250	-	-	-	2.02	1.07	0.37
2,500	-	-	-	-	1.32	0.46
2,750	-	-	-	-	1.60	0.55
3,000	-	-	-	-	1.90	0.65
3,500	-	-	-	-	2.58	0.88
4,000	-	-	-	-	-	1.15
4,500	-	-	-	-	-	1.45
5,000	-	-	-	-	-	1.78
5,500	-	-	-	-	-	2.15

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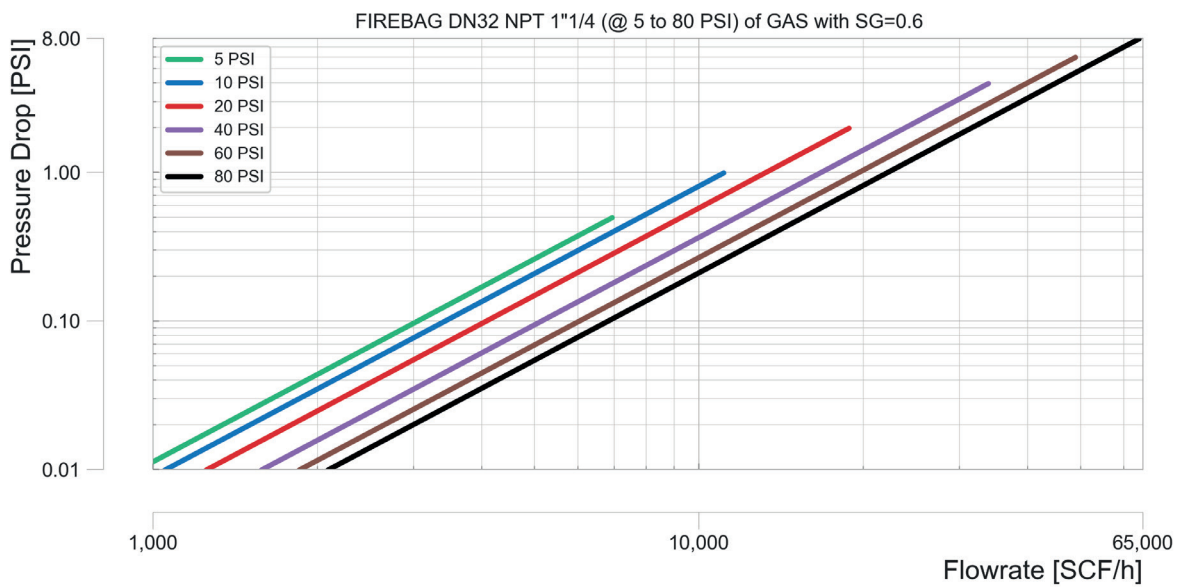
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¾" High Pressure



1¼" High Pressure



Note: Charts presented are for illustration purposes only. Actual pressure and flow charts are available for all sizes, ¾" through 2", upon request through TECO Americas or by contracting your regional distributor.