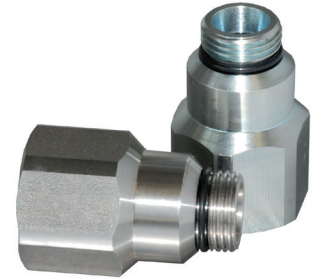


# TVD

## Thermal safety shut-off device

The **TVD** is a **thermal safety shut-off device** that stops the gas flow in case of excessive ambient temperature, e.g., due to fire. The valve is rated to shut the gas flow for **90 minutes with temperature up to 1472 °F | 800 °C**. There are two sizes depending on the flow rate and required pressure drop: TVD1 and TVD2.



Residential users



Commercial users

Features	Values
Maximum Allowable Operating Pressure (MAOP)	1 MPa   145 psig
Operating temperature	from -40 to +65°C   from -40 to +149°F
Activation temperature	100 ± 10°C   212 ± 14°F 160 ± 10°C   320 ± 14°F
Maximum flow rate	42.8 m <sup>3</sup> /h   1500 scfh for TVD1 100 m <sup>3</sup> /h   3500 scfh for TVD2
Size <sup>1</sup>	<ul style="list-style-type: none"> <li><b>TVD1:</b> 1/2" NPT x 1/2" ISO 228/1; 3/4" NPT x 1/2" ISO 228/1; 1" NPT x 1/2" ISO 228/1</li> <li><b>TVD2:</b> 1" NPT x 1" ISO 228/1; 1-1/4" NPT x 1" ISO 228/1; 1-1/2" NPT x 1" ISO 228/1</li> </ul>

(<sup>1</sup>) to be replaced on FE regulators. Different functional features and/or extended ranges may be available on request. Stated gas temperature range is the maximum for which the equipment's full performance is guaranteed.

**Table 1** Features

## Materials

Part	Material
Body	Steel
Melting cartridge	Thermoplastic
Shutter	Steel
Seat (machined directly in the body)	Steel

**Table 2** Materials

## Approvals

The **TVD** is designed using DIN 3586 as a guideline, and its performance has been verified by a North American notified body.



DIN 3586\*



Notified  
Body letter of  
attestation

(\*) TVD complies with it only partially

### Thermal Safety Valve TVD1 pressure drop

Inlet pressure		Flow rate											
		1 m <sup>3</sup> /h 35 scfh		5 m <sup>3</sup> /h 175 scfh		9.9 m <sup>3</sup> /h 350 scfh		14.9 m <sup>3</sup> /h 525 scfh		24.8 m <sup>3</sup> /h 875 scfh		42.8 m <sup>3</sup> /h 1500 scfh	
kPa	psig	kPa	" w.c.	kPa	" w.c.	kPa	" w.c.	kPa	" w.c.	kPa	" w.c.	kPa	" w.c.
6.9	1	0	0	0.3	1.2	1	4	3.73	15	5.5	22	-	-
13.8	2	0	0	0.25	1	0.87	3.5	3.48	14	5	20	-	-
34.5	5	0	0	0.2	0.8	0.75	3	3.23	13	4.5	18	12	50
69	10	0	0	0.15	0.6	0.62	2.5	2.49	10	3.5	14	8	32
≥ 276	≥ 40	0	0	0.1	0.4	0.5	2	1.49	6	2	8	4	16

### Thermal Safety Valve TVD2 pressure drop

Inlet pressure		Flow rate											
		5 m <sup>3</sup> /h   175 scfh		9.9 m <sup>3</sup> /h   350 scfh		20 m <sup>3</sup> /h   700 scfh		50 m <sup>3</sup> /h   1750 scfh		75 m <sup>3</sup> /h   2600 scfh		100 m <sup>3</sup> /h   3500 scfh	
kPa	psig	kPa	" w.c.	kPa	" w.c.	kPa	" w.c.	kPa	" w.c.	kPa	" w.c.	kPa	" w.c.
6.9	1	0.2	0.8	0.3	1.2	0.5	2	1.74	7	3.5	14	-	-
13.8	2	0.1	0.4	0.15	0.6	0.45	1.8	1.49	6	3	12	-	26
34.5	5	0.05	0.2	0.25	1	0.37	1.5	1.24	5	2.5	10	5	20
69	10	0	0	0.15	0.6	0.2	0.8	1	4	1.2	4.8	4	17
≥ 276	≥ 40	0	0	0.1	0.4	0.15	0.6	0.5	2	0.9	3.6	1	6

## TVD competitive advantages



Supplied integrated in the regulator



Compact dimensions



Fire protection



Low pressure drop



No maintenance



Biomethane (RNG) compatible and  
20% Hydrogen blending compatible.  
Higher blending available on request.