

# TECHNICAL BULLETIN

## **EARTHQUAKE VALVE - FM MECHANICAL**

This device has been designed to automatically shut off the gas flow due to earthquakes under ASCE 25-06, ANSI Z21.21- 2005 , CR90 - 002 and TSE ( Turkish Standards Institute) TS 12884 standard conditions. When the device is subjected to the momentum range of seismic vibrations given in the standard conditions, the device makes shut-off. The factory settings are made in this way presented to the user.

## **TECHNICAL SPECIFICATIONS**

### Operating

Temperature: -23° C (-10°F) / +66° C (150°F)

Thread length: NPT thread, length min 20 mm.

Gasses: Natural gas, LPG, methane, propane, air, etc..  
non corrosive gaseous fluids.

Gas touched surfaces are aluminium, brass and stainless steel.

**WARNING!** This device must be installed by a qualified installer in accordance with the manufacturer's installation instructions; if improperly installed, failure to function as intended or unwarranted interruption of gas service could result. Following actuation of this device, reset the device and restore service only after a qualified person has verified no gas leak exists.

**PLUG AND PULL THE KNOB TO THE SPINDLE FOR RESETTNG,  
UNPLUG AND REVERSE IT, PLUG IT TO THE VALVE BODY, FOR PROTECTION**

## **OPERATING PRINCIPLE, INTRODUCTIVE BRIEF INFORMATION**

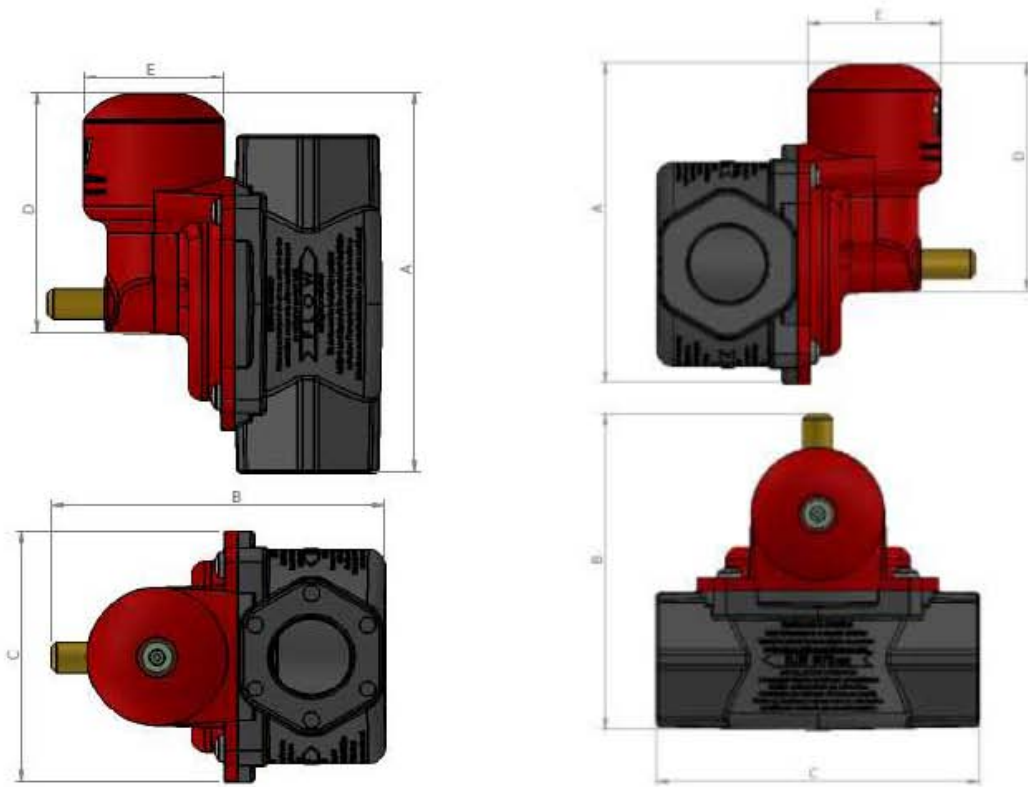
It is the mechanical earthquake valve that perceives seismic movements (earthquake) and automatically shuts off the flow of gas at the places using gas at the end of perceived movements, then can be manually set up, stays turn-off until it is set up, and normally in turn-on position. The device automatically turns off at the moment of occurrence of the seismic activity having momentum and frequency values at the size depending on the related standards, as a result of perception of this activity by the device, and in a manner not causing leakage of flow of gas with help of gas shut-off equipment. Whether or not seismic activity continues or not, it remains turn-off until the flow of gas is set up again. It is possible to give gas to the installation again after device perceived seismic activities and shuts off gas, and the setup knob (reset) is manually pulled. After said shut-off, the manual setup proceeding must be definitely made by authorized gas distribution company or by firms authorized by them.

**The device is exposed to the same seismic effect with the structure from the moment it is connected to the installation; it is sensitive to the seismic movements occurred because of earthquake and similar reasons, however, it is not sensitive to the movements occurred because of dynamic reactions to be arisen from structure or equipment.**

**The adjustments made in our factories are affixed in a manner not to remove sensor cover for prevention of losing adjustment features in our factory.**

The device is resistant to the sulfur compounds, corrosion, natural gas, solar light, moisture, temperature changes during the expected use of device to prevent damage of device components and housing from gas flow. All materials of device used for production of exterior parts are resistant against moisture, dirt, ozone, fertilization, mineral oil, vegetable oil, grease, exposure to sunlight for a long time and exposure to freezing temperatures for a long time.





DIMENSIONS								
Model	Thread - Fil (NPT)	Weight/Poids (GR)	DN	A	B	C	D	E
	3/4"	1060	20	145	126	80	90	52
	1"	1040	25	145	126	80	90	52
	1"	1064	25	125	126	80	90	52
	1"	1064	25	125	123	126	90	52
	1 1/4"	940	32	145	126	80	90	52
	1 1/2"	1420	40	145	147	90	90	52
	1 1/2"	1420	40	125	145	128	90	52
	1 1/2"	1420	40	125	145	128	90	52
	2"	1240	50	145	147	90	90	52
	2"	1420	40	125	145	128	90	52
	2"	1420	40	125	145	128	90	52

MIN. CAPACITY VALUES TABLE

Model	Thread [ NPT ]	Position	DN	Max. Pressure [PSI]	Inlet Pressure [mbar / PSI]	Outlet Pressure [mbar/PSI]	$\Delta P$ [mbar/PSI]	Cv Value [50mbar $\Delta P$ ]	Q [m <sup>3</sup> /h] / [gallons/min]	Energy [KW]
	3/4"	Vertical	20	7	125/1,8	75/1,1	50 /0,75	60	100/440	1000
	1"	Vertical	25	7	125/1,8	75/1,1	50 /0,75	410	100/440	1000
	1"	Vertical	25	60	125/1,8	75/1,1	50 /0,75	410	100/440	1000
	1"	Horizontal	25	60	125/1,8	75/1,1	50/0,75	410	100/440	1000
	1 1/4"	Vertical	32	7	125/1,8	75/1,1	50 /0,75	700	170/749	1690
	1 1/2"	Vertical	40	7	125/1,8	75/1,1	50 /0,75	990	240/1057	2470
	2 1/2"	Vertical	40	60	125/1,8	75/1,1	51 /0,75	990	240/1057	2470
	2 1/2"	Horizontal	40	60	125/1,8	75/1,1	51 /0,75	990	240/1057	2470
	2"	Vertical	50	7	125/1,8	75/1,1	50 /0,75	1240	300/1321	3100
	2"	Vertical	50	60	125/1,8	75/1,1	51 /0,75	1240	300/1321	3100
	2"	Horizontal	50	60	125/1,8	75/1,1	51 /0,75	1240	300/1321	3100