

V/ Series Spring-Loaded Relief Valves



The automatic spring-loaded relief valves are designed to keep line pressure below preset values. They are mounted downstream of regulators and perform the specific function of releasing small amounts of gas in the event of the regulator not closing perfectly.

Thanks to their effective release capacity and compact size, the V/ series relief valves are ideal for use in civil and industrial equipment employing natural gas, propane, butane and non-corrosive gases in general. The valves are extremely easy to install and are designed for ready and easy maintenance.

V/50 and V/60 SERIES RELIEF VALVES

The V/50 and V/60 series relief valves are especially designed for use with low pressures. Special care and attention has been given to their construction features in order to ensure a very low hysteresis value as well as maximum operation accuracy and sensitivity.

OPERATION

Whenever gas pressure under diaphragm (D) is higher than the force exerted by spring (M), diaphragm is raised causing sleeve (O), which is integral with the diaphragm itself, to move and thereby open the release orifice.

In order to check the efficiency of the relief valve, pull up valve opening stem (S).

SETTING

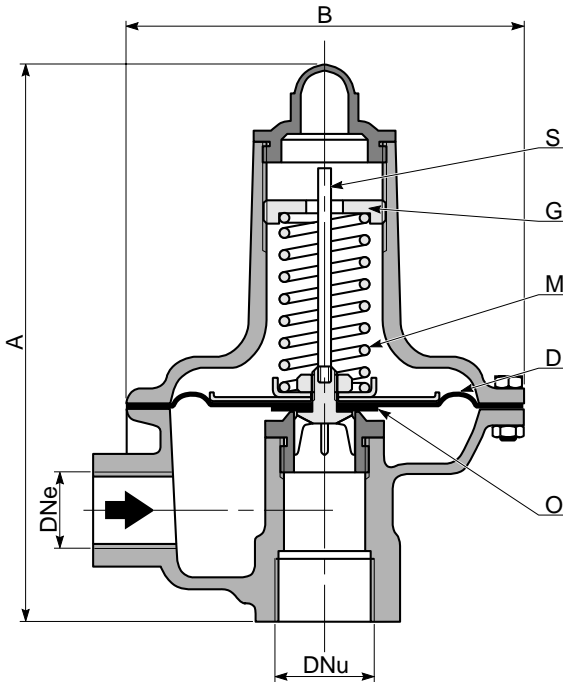
Valve setting is carried out by adjusting the compression of spring (M) through the appropriate ring (G).

Valve set point should generally be at an intermediate value between active regulator or monitor and slam-shut valve (if fitted) set points. In all other cases, it is recommended that relief valve be set at a value at least 15% higher than the working pressure of the equipment.

INSTALLATION

The relief valve is normally installed downstream of the regulator. Gas is released into the atmosphere at an appropriate height, i.e. at least 3 meters above ground level as required by Italian regulations. Gas release pipe diameter must not be less than valve outlet pipe diameter.

Relief valve efficiency and performance are in no way affected by direction of installation.



MATERIALS

Casing	die-cast aluminium
Cover	die-cast aluminium
Valve seat	OT 58 UNI 2012 brass
Diaphragm	BUNA-N rubber-coated fabric
Seals	BUNA-N

COUPLINGS

MODEL	V/50	V/60
Inlet	1" gas UNI 338	1 1/2" gas UNI 338
Outlet	1 1/2" gas UNI 338	2" gas UNI 338
Other threads may be supplied on request.		

SPECIFICATIONS

MODEL	V/50	V/60
Orifice	32 mm	40 mm
Temperature Range	-10°C to +100°C	
Retention Pressure	6 bar	

WORKING PRESSURE

MODEL	Set Pressure Range (bar)
V/50	0.025 to 0.08
V/51	0.075 to 0.75
V/52	0.70 to 2.00
V/60	0.025 to 0.09
V/61	0.08 to 0.75
V/62	0.70 to 2.00

DIMENSIONS

MODEL	V/50	V/60
A	236	258
B	ø 164	ø 198
DNe	1"	1 1/2"
DNu	1 1/2"	2"

Note: Above dimensions are not binding.

SETTING PRESSURES AND APPLICABLE SPRINGS

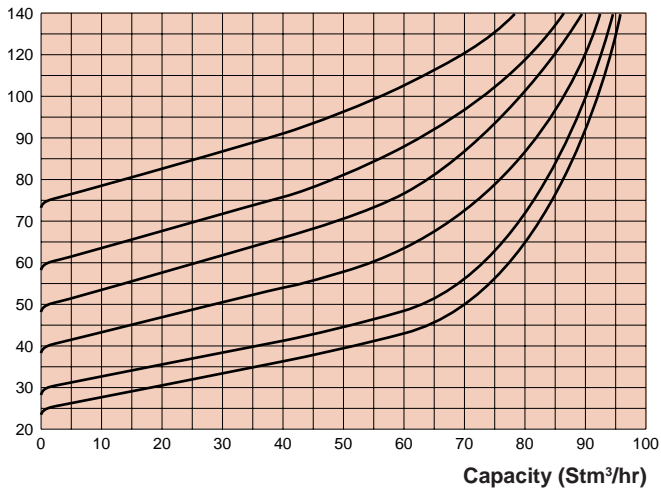
MODEL	Spring Code	Setting Range (bar)
V/50	0.24142/0	0.025 to 0.05
	0.24143/0	0.04 to 0.09
V/51	0.24144/0	0.08 to 0.13
	0.24145/0	0.10 to 0.20
	0.12566/0	0.18 to 0.40
	0.15549/0	0.35 to 0.80
V/52	0.15549/0	0.70 to 1.60
	0.15550/0	1.50 to 2.00

MODEL	Spring Code	Setting Range (bar)
V/60	0.24142/0	0.025 to 0.04
	0.24143/0	0.035 to 0.65
	0.24144/0	0.06 to 0.09
V/61	0.24144/0	0.08 to 0.11
	0.24145/0	0.10 to 0.14
	0.24146/0	0.14 to 0.19
	0.12566/0	0.18 to 0.35
	0.15549/0	0.30 to 0.75
V/62	0.12566/0	0.70 to 1.20
	0.15549/0	1.20 to 2.00

CAPACITY CURVES

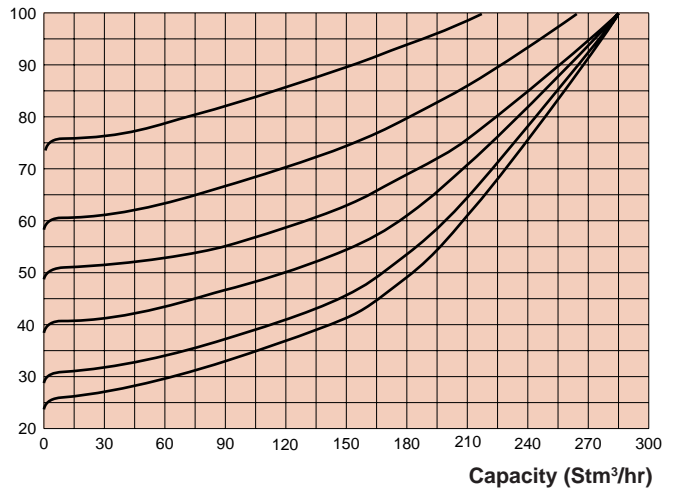
(mbar) Setting pressure

V/50



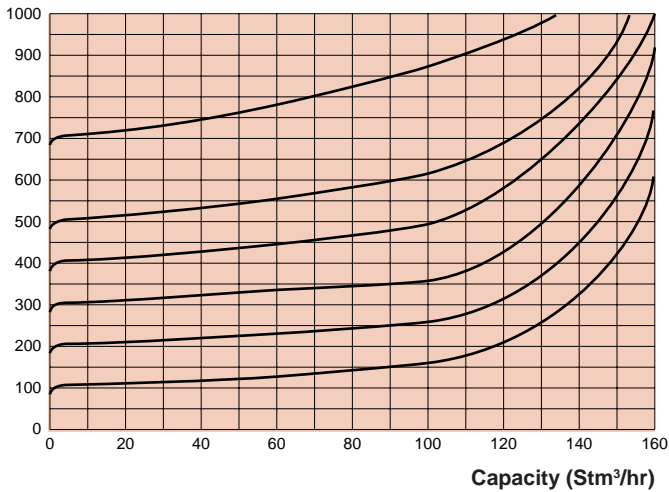
(mbar) Setting pressure

V/60



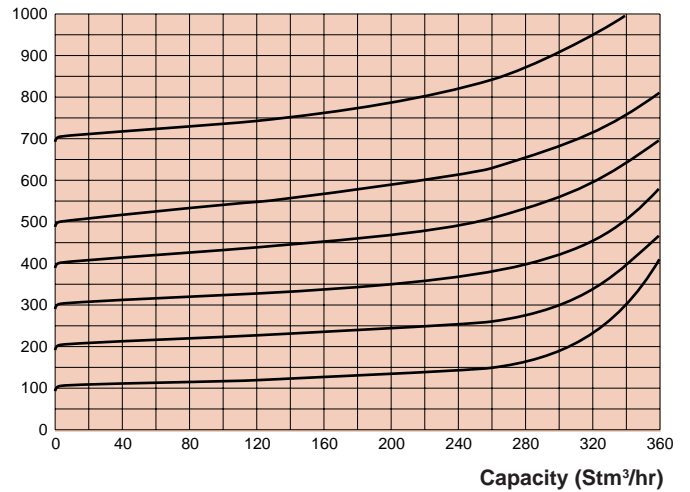
(mbar) Setting pressure

V/51



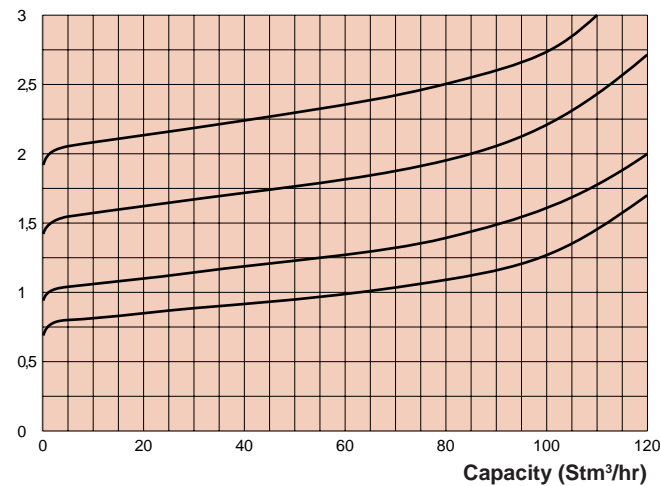
(mbar) Setting pressure

V/61



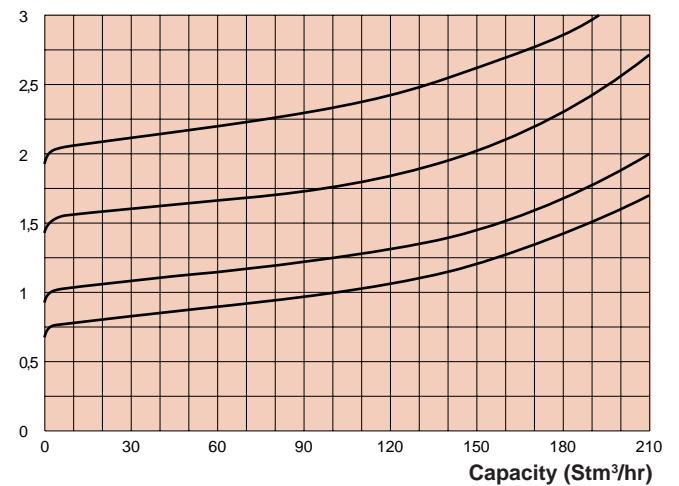
(bar) Setting pressure

V/52



(bar) Setting pressure

V/62



V/20-2 SERIES RELIEF VALVES

The V/20-2 relief valves are designed for use at medium and high pressures and cover a wide range of setting values, e.g. from 1.5 to 21 bar. To change setting, simply replace the spring with the one appropriate for the desired value.

OPERATION

Whenever gas pressure under pad (O) is higher than the force exerted by spring (M) in the opposite direction, pad-holder device (P) is raised, thereby causing the release orifice to open.

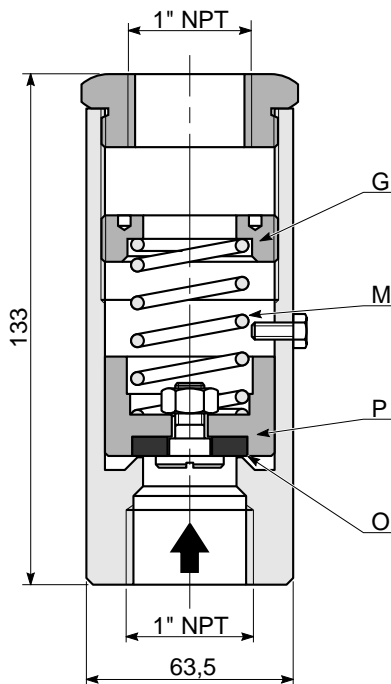
SETTING

Setting is carried out by adjusting the compression of spring (M) through the appropriate ring (G). It is recommended that relief valve be set at a value at least 15% higher than the operating pressure of the equipment.

INSTALLATION

The relief valve is normally installed downstream of the regulator and releases gas into the atmosphere. The outlet pipe diameter must not be less than the valve outlet diameter.

Valve efficiency and performance are in no way affected by the direction of installation of the valve itself.



Note: Above dimensions are not binding.

MATERIALS

Main casing	OT 58 UNI 2012 brass
Pad stop	OT 58 UNI 2012 brass
Pad holder	OT 58 UNI 2012 brass
Adjusting ring	OT 58 UNI 2012 brass
Outlet connection	OT 58 UNI 2012 brass
Seal pad	BUNA-N rubber

COUPLINGS

MODEL	V/20-2
Inlet	1" NPT
Outlet	1" NPT
Other threads may be supplied on request.	

SPECIFICATIONS

MODEL	V/20-2
Orifice	25,4 mm (1")
Temperature Range	-10°C to +100°C
Retention Pressure	100 bar

WORKING PRESSURE

MODEL	Set Pressure Range (bar)
V/20-2	1.5 to 21

SETTING PRESSURES AND CAPACITIES

Spring Code	Setting Range (bar)	Setting Pressure (bar)	Capacity (Stm ³ /hr)
0.02330/1	1.5 to 2.5	2	330
0.02331/1	2.0 to 4.5	4	550
0.02333/1	4.0 to 7.5	6	760
0.02334/0	7.0 to 12	10	1200
0.09121/0	11 to 16	15	1750
0.02338/1	15 to 21	20	2300

For pressures not shown in the above table, determine medium between two capacity values.