

# Type 237

Safety Relief Valves



# CATALOG

**LESER**

[The-Safety-Valve.com](http://The-Safety-Valve.com)

## General Information

### LESER India Safety Relief Valves

Type 237 stands for

- ✓ Compact dimensions with high capacity
- ✓ Threaded connections
- ✓ Pressure range: 0.1 up to 93 bar<sub>g</sub>
- ✓ Temperature up to 280 °C

### General design features

- One design and one spring for steam, gas, liquid and multi-phase (single trim)
- Self draining body design, avoids residues and reduces corrosion
- Designed to meet small capacity requirements of all industrial applications
- Opens rapidly within an overpressure maximum 10% to full lift
- Maximum blowdown within 10% for steam/gas service and 20% for liquid service
- Developed in consultation with users from plants, OEM and service specialists

### Approvals

- Designed and tested in accordance with the rules of DIN EN ISO 4126 and ASME Section VIII Div. 1 at our test lab in Germany
- IBR Certificate Form III C (without attachment 11)
- Third party inspections possible



## Type 237

### Applications

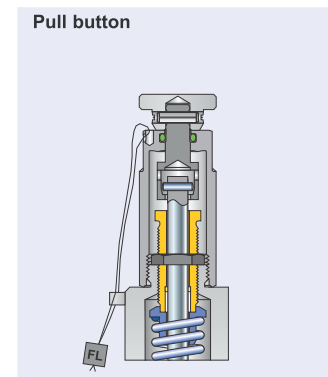
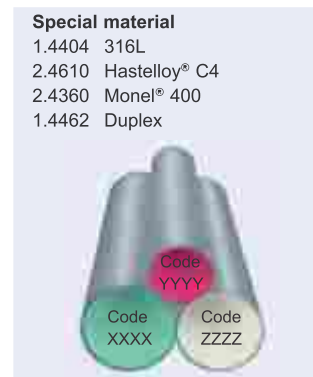
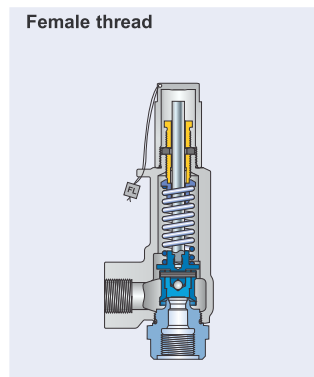
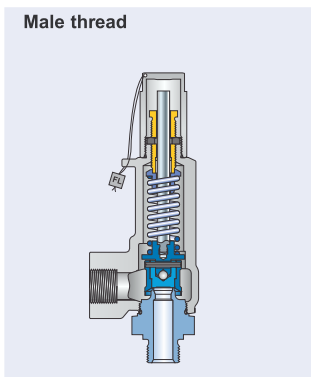
For all smaller capacity applications of steam, gases and liquids Type 237 provides protection against undesired overpressures.

Typical applications are:

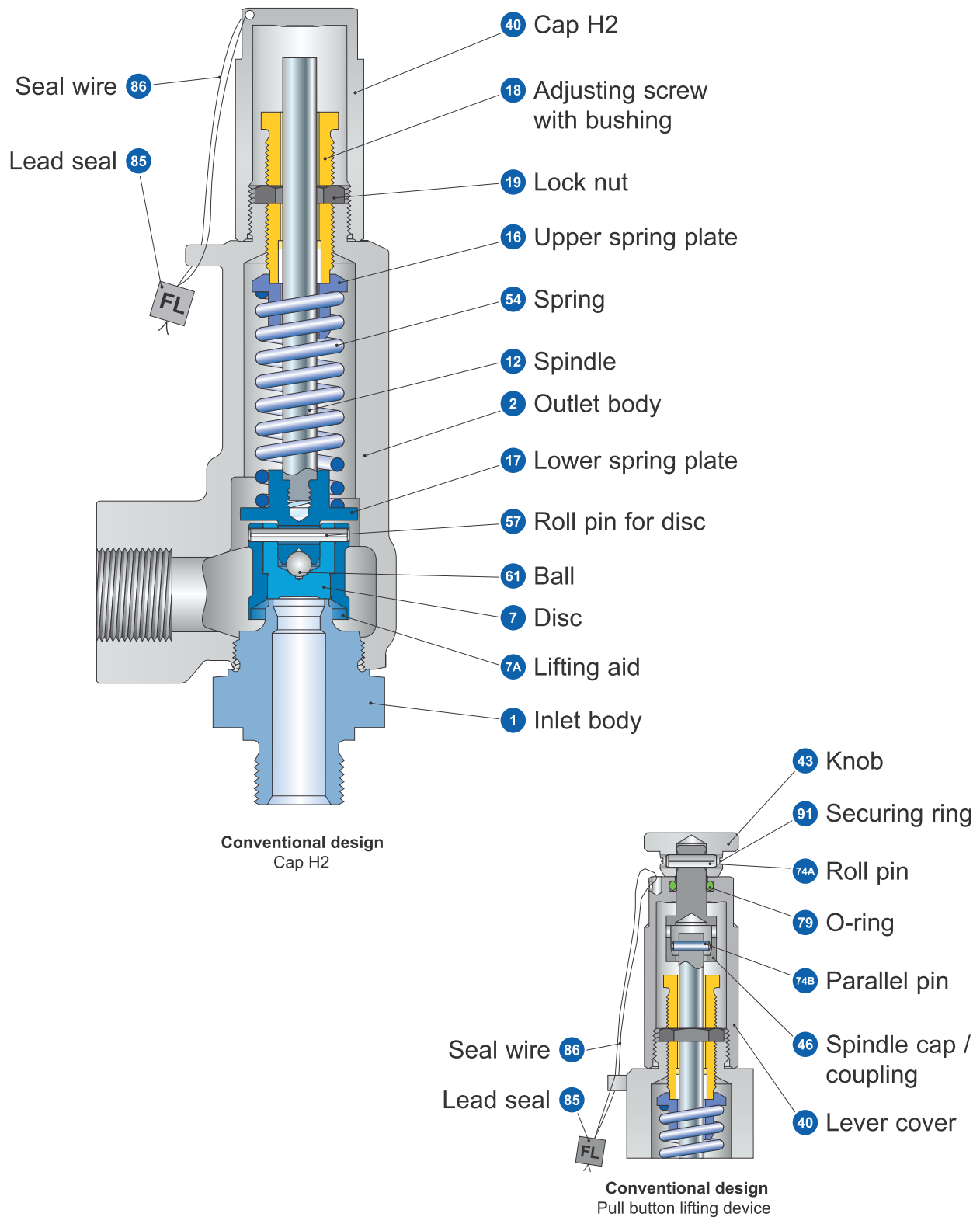
- Thermal relief
- Utility steam
- Air / gas compressors
- Pump discharge
- Technical gases and gas plants
- Cylinder filling stations
- Mobile tanks (transport system)
- Chemical equipment and piping
- Pressure vessels
- LPG / LNG terminals, carriers etc.
- Cryogenic systems and oxygen applications

### Available options

- ✓ End connections possible from  $\frac{3}{8}$ " to 1"
- ✓ Threads according to different standards available (e. g. BSP, NPT, BSPT)
- ✓ Female thread also possible at inlet on special demand
- ✓ Special materials
- ✓ Pull button lifting device
- ✓ Electropolished surface



**Type 237**  
**Available designs**



## Type 237 Available designs

### Materials

Item	Component	Type 237 with gas tight cap H2	Type 237 with pull button
1	Inlet body	SS 316	
2	Outlet body	A 351 Gr. CF8M	
7	Disc	SS 316	
7A	Lifting aid	SS 316	
12	Spindle	SS 316	
16	Upper spring plate	SS 316	
17	Lower spring plate	SS 316	
18	Adjusting screw with bushing	SS 316	
19	Lock nut	SS 316	
54	Spring	Stainless steel, Alloy steel	
57	Roll pin for disc	SS 316	
61	Ball	SS 316	
40	Cap H2	SS 316	–
40	Lever cover	–	SS 316
43	Knob	–	SS 316
46	Spindle cap / coupling	–	SS 316
74A	Roll pin	–	SS 316
74B	Parallel pin	–	SS 316
79	O-ring	–	FKM
85	Lead seal	Lead	
86	Seal wire	Stainless steel	
91	Securing ring	–	SS 316

## Type 237

### Article number, dimensions and weights, pressure temperature ratings

#### Article number

Actual Orifice diameter $d_0$ [mm]	10
Actual Orifice area $A_0$ [mm <sup>2</sup> ]	78.5
Art.-no. <b>2370.</b>	<b>0011</b>
p [bar <sub>g</sub> ]	0.1 - 93

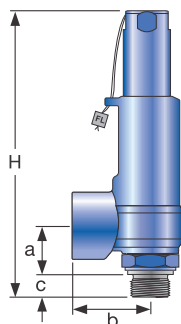
#### Dimensions and weights

Size				Height, H		Center to face dimensions			Weight approx. [kg]	Actual Orifice diameter $d_0$ [mm]
Inlet [mm]	Outlet [mm]	Inlet [inch]	Outlet [inch]	Cap H2 [mm]	Pull button [mm]	Inlet [mm]		Outlet [mm]		
						a	c	b		
<b>Male thread DIN ISO 228-1 G</b>										
10	15	3/8"	1/2"	186	204	34	12	48	1.2	10
15	15	1/2"	1/2"	188	206	34	14	48	1.2	10
15	20	1/2"	3/4"	188	206	34	14	48	1.2	10
20	25	3/4"	1"	190	208	34	16	48	1.2	10
25	25	1"	1"	192	210	34	18	48	1.2	10

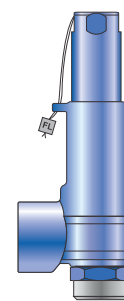
Note: Threads according to other standards are available (e.g. NPT, BSPT)

#### Pressure temperature ratings

		Cap H2	Pull button
Actual Orifice diameter $d_0$ [mm]		10	
Actual Orifice area $A_0$ [mm <sup>2</sup> ]		78.5	
Minimum set pressure p [bar <sub>g</sub> ]	S/G/L	0.1	0.1
Maximum set pressure p [bar <sub>g</sub> ]	S/G/L	93	16
Temperature acc. to DIN EN	min. [°C]	-273	-273
	max. [°C]	280	280
Temperature acc. to ASME	min. [°C]	-268	-268
	max. [°C]	280	280



Conventional design - Male thread



Conventional design - Female thread can be provided on demand

## Type 237

### Capacities steam, air, water

#### Metric Units

Capacities according to AD 2000-Merkblatt A2, based on set pressure plus 10% overpressure. Capacities at 1 bar<sub>g</sub> (14.5 psig) and below are based on 0.1 bar<sub>g</sub> (1.45 psig) overpressure.

#### AD 2000-Merkblatt A2 / DIN EN ISO 4126-1

Actual Orifice diameter $d_o$ [mm]	10		
Actual Orifice area $A_o$ [mm <sup>2</sup> ]	78.5		
Coefficient of discharge ( $K_{dr}$ )	S/G = 0.50 L = 0.35		
Set pressure	Capacities		
[bar <sub>g</sub> ]	Steam saturated [kg/h]	Air 0 °C and 1013 mbar [m <sup>3</sup> /h]	Water 20 °C [10 <sup>3</sup> kg/h]
0.1	12	14	0.63
0.2	17	19	0.77
0.5	29	34	1.08
1	43	51	1.5
2	70	84	2.1
3	94	115	2.5
4	118	145	2.9
5	141	174	3.3
6	164	204	3.6
7	186	233	3.9
8	209	262	4.1
9	232	292	4.4
10	255	321	4.6
12	301	380	5.1
14	346	439	5.5
16	392	498	5.9
18	437	556	6.2
20	483	615	6.6
22	528	674	6.9
24	573	733	7.2
26	619	792	7.5
28	666	851	7.8
30	712	909	8
32	758	968	8.3
34	803	1027	8.6
36	849	1086	8.8
38	896	1145	9
40	943	1204	9.3
42	990	1262	9.5
44	1038	1321	9.7
46	1085	1380	9.9
48	1133	1439	10.2
50	1181	1498	10.4
60	1421	1792	11.4
70	1670	2086	12.3
80	1921	2380	13.1
90	2185	2674	13.9

## Other products



### Type 526

Flanged safety relief valves with "UV Certification", Designed as per API 526, Now available from LESER India.



### Type 441

Flanged standard pressure series suitable for steam, gas and liquid service. They have proven themselves as a universal safety valve for many applications.



### Type 549

Safety valve for gas, liquid or steam. Also for thermal relief application. Available in screwed and flanged connection for all utility valves.



### Type 459

Safety valve for gas, liquid or steam. Also for thermal relief application. Available in screwed and flanged connection for all utility applications. Can be supplied with "UV" stamp.

## How to contact LESER India

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Type 237  
Edition January 2015



LESER India factory in Paithan



Assembly of safety valves

# LESER

The-Safety-Valve.com