



## BAILEY 480 CARTRIDGE ASSEMBLY RELIEF VALVE



### TECHNICAL SPECIFICATION

#### Approvals

BS6759 Pt 3 / PED certified Category IV

#### Materials

Body - Bronze (-20 to 120°C)

Trim - Bronze

#### Size Range

Size	Orifice mm <sup>2</sup>	Min (Barg) Pressure	Max (Barg) Pressure
DN20 (3/4")	285	0.35	24
DN25 (1")	507	0.35	24
DN40 (1 1/2")	1140	0.35	24
DN50 (2")	2027	0.35	24
DN80 (3")	4560	0.35	10

#### Performance

	Kdr	Over pressure	Blow down
Liquid for 0.6 Barg min	0.11	10%	20%†

#### Maximum Back Pressure

Barg	5.5
Constant	80%
Built-up	10%
Variable	0%

(Total % must not exceed Barg shown)

### DESIGN

This spring operated liquid relief valve has a cartridge type assembly which can be withdrawn from the body without disturbing the spring setting and hence relieving pressure. This allows the seating surfaces to be cleaned without the need to reset the valve.

Typically for use on positive displacement pumps, for relief or bypass duties. The spring cartridge assembly can be supplied separately for use as an integral pump bypass relief valve.

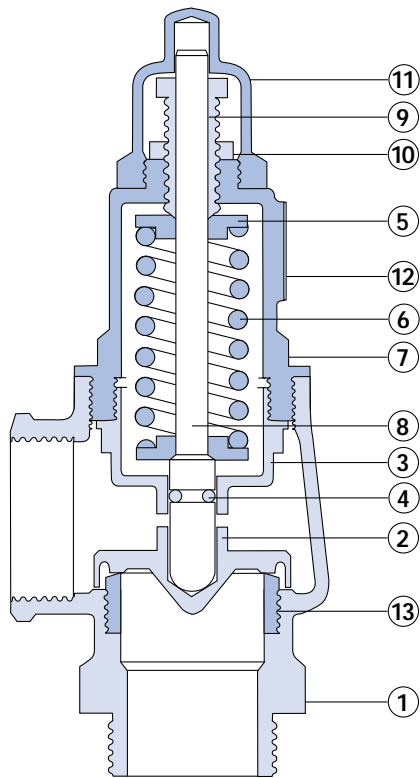
The spindle is fitted with an 'O' ring to protect the spring particularly on corrosive duties.

### Spring Range and Selection

Barg	Psig	Colour Code
0.3 - 0.7	5 - 10	Yellow
0.7 - 1.0	10 - 15	Blue
1.0 - 1.7	15 - 25	Orange
1.7 - 3.4	25 - 50	Purple
3.4 - 5.2	50 - 75	Green/Blue
5.2 - 6.9	75 - 100	Green
6.9 - 10.3	100 - 150	White
10.3 - 13.8	150 - 200	Red/Yellow
13.8 - 17.2	200 - 250	Red/Green
17.2 - 20.7	250 - 300	Red/Orange
20.7 - 24.0	300 - 350	Yellow/Blue

Note: 80mm valve max pressure is 10 Barg (147 Psig)

## PARTS



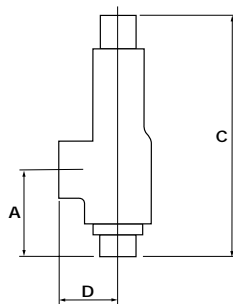
ITEM	PART	MATERIAL
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1	Body	Bronze
2	Valve Disc	Bronze*
3	Guide	Bronze
4	'O' Ring	Nitrile
5	Spring Plate	Brass
6	Spring	C. S.
7	Cover	Bronze
8	Spindle	Bronze
9	Adjusting Screw	Brass
10	Locknut	Brass
11	Dome	Bronze
12	Nameplate	Aluminium
13	Renewable Seat	Bronze*

## WATER CAPACITY CHART (l/min) @ 10% overpressure\* @ 20°C

	DN20	DN25	DN40	DN50	DN80
1.0	27.90	49.63	112	198	446
2.0	34.17	60.78	137	243	547
3.0	39.46	70.19	158	281	631
4.0	55.80	99.27	223	397	893
5.0	62.39	111	250	444	998
6.0	48.34	122	273	486	1093
7.0	73.82	131	295	525	1181
8.0	78.91	140	316	561	1263
9.0	83.70	149	334	595	1339
10.0	88.23	157	353	628	1412
12.0	96.65	172	387	687	—
12.5	98.64	176	395	702	—
14.0	104	186	418	742	—
16.0	112	199	446	794	—
18.0	118	211	473	842	—
20.0	125	222	499	887	—
22.0	131	233	523	931	—
24.0	137	243	547	972	—

## DIMENSIONS



Valve Type	Valve Size	Inlet & Outlet (BSP)	A	'C' Dome	D	Weight (kg)
Male x Female	DN20	3/4"	49	176	41	1
	DN25	1"	64	198	45	2
	DN40	1 1/2"	73	237	56	3
	DN50	2"	91	270	64	5
	DN80	3"	111	390	86	13

All dimensions in mm.