



Overflow valve T28

Without auxiliary power, for liquids and gas
DN20-200 PN6-25

Schley Armaturen GmbH
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Overflow valve without auxiliary power, Model T28

The function of upstream pressure regulators (safety overflow valves, pressure retaining valves) is, that the outflow of the medium at a specific pressure, with an existing counter pressure or vacuum having no effect on the set over pressure (retaining pressure).

Overflow pressure > counter pressure

The above listed items are characteristic for an upstream pressure regulator, by comparison to a normal safety valve. The safety valve is only a device to prevent a specific pressure from being exceeded (actuation pressure).

Upstream pressure regulators, our model T28, are single-seat valves and are especially suitable for incompressible media, for example water, oil, etc. The valves are fully relieved so that the counter pressure has no effect on the set overflow pressure, only the overflow quantity changes according to the counter pressure. The external seal is generally produced by an o-ring. The valves have no stuffing box and are maintenance free.

An additional major factor is the fact, that safety valves tend to chatter with incompressible media. Even where protection against a specific pressure is required for incompressible media, preference should be given to the upstream pressure regulator rather than the safety valve. The control behaviour of the upstream pressure regulator is proportional.

A continuous small amount of the medium, about 10% of the maximum flow rate, should flow through the valve, so as to protect the seat and cone, and raise the sensitivity when the load changes.

Upstream pressure regulators for incompressible media close in the event of a pressure drop within 10 %. Below 3 bar setting pressure, within a pressure drop of 0.3 bar.

The mass flow of overflow valves is listed in the table on page 4, whereby the following must be observed:

Overflow pressure - counter pressure =
differential pressure Δp

In addition, the velocity of the medium in the piping must be checked (the effects of the viscosity must be separately taken into account). Normally, with water the velocity in the piping should not exceed 2 m/s. Decisive for the valve size to be selected is almost always the velocity in the piping, where the use of upstream pressure regulators are concerned (mass flow table line 2 m/s). With small differential pressures, the mass flow quantity is above the 2 m/s line.

Version:
2.1050 / CC480K-GS

- Seat, cone, guide cone, spindle in bronze
- Straight-way valve body acc. to VG 85035
- Angle valve body acc. to VG 85036

The valves can be supplied with classification society acceptance.

Test Report based on DIN EN 10 204 - 2.2

Inspection certificate DIN EN 10 204 - 3.1



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For enquiries and orders, we would like the following details:
Overflow pressure, counter pressure, maximum and minimum mass flow, medium, temperature, viscosity, possible present piping diameter.

Spring

DN20

pressure to response	16	10	6,3	4	2,5	1,6	1	0,63	Do = Ø 20
spring-No.	109	108	107	106	105	104	103	102	

DN25

pressure to response	16	10	6,3	4	2,5	1,6	1	0,63	Do = Ø 25
spring-No.	4	109	108	107	106	105	104	103	

DN32

pressure to response	16	10	6,3	4	2,5	1,6	1	0,63	Do = Ø 32
spring-No.	3	4	109	108	107	106	105	104	

DN40

pressure to response	10	6,3	4	2,5	1,6	1	0,63	Do = Ø 40
spring-No.	4	5	6	7	8	9	10	

DN50

pressure to response	10	6,3	4	2,5	1,6	1	0,63	Do = Ø 50
spring-No.	3	4	5	6	7	8	9	

DN70

pressure to response	10	6,3	4	2,5	1,6	1	0,63	Do = Ø 70
spring-No.	23	24	25	26	27	28	29	

DN80

pressure to response	10	6,3	4	2,5	1,6	1	0,6	Do = Ø 80
spring-No.	22	23	24	25	26	27	28	

DN100

pressure to response	10	6,3	4	2,5	1,6	1	0,6	Do = Ø 100
spring-No.	33	34	35	36	37	38	39	

DN125

pressure to response	10	6,3	4	2,5	1,6	1	0,6	Do = Ø 125
spring-No.	32	33	34	35	36	37	38	

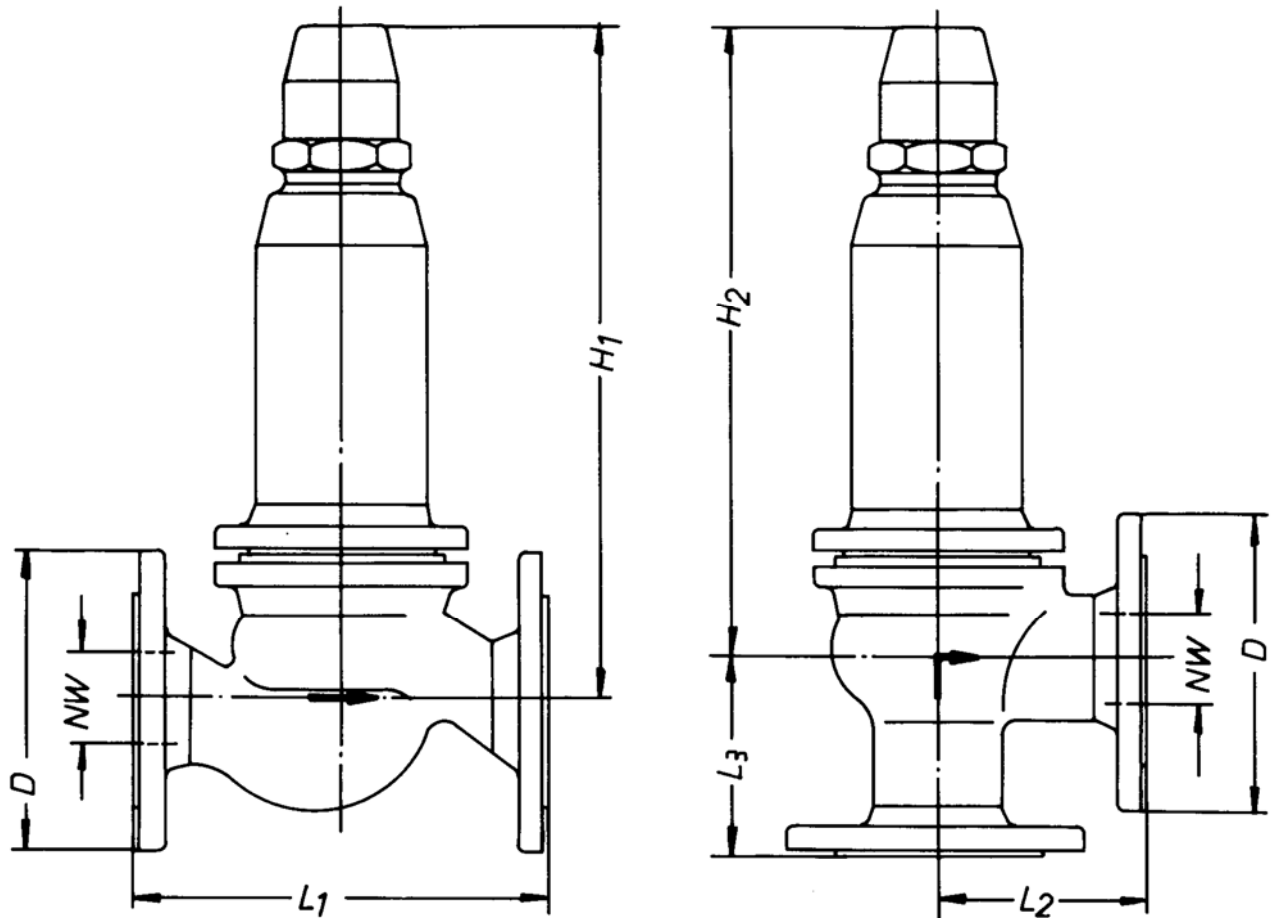
DN150

pressure to response	10	6,3	4	2,5	1,6	1	0,6	Do = Ø 150
spring-No.	42	32	33	34	35	36	37	

DN200

pressure to response	6	4	2,5	1,6	1	0,6	Do = Ø 210
spring-No.	42	43	44	45	46	47	

Model T28



DN (NW)	PN	Flanges VG 85011-3				L1	L2	L3	H1	H2
		D	k	z	i					
20	25	86	62	4	11	120	65	65	230	205
25	25	92	68	4	11	130	70	70	230	205
32	25	100	76	6	11	140	75	75	230	205
40	10	108	84	6	11	180	80	80	290	260
50	10	120	96	6	11	210	85	85	300	260
70	10	140	116	8	11	260	110	95	425	365
80	10	150	126	8	11	280	115	100	425	365
100	10	172	148	10	11	330	130	115	545	485
125	10	200	176	10	11	390	145	130	570	490
150	10	226	202	12	11	450	160	140	640	550
200	6	288	264	16	11	580	200	175	710	605

Dimensions in mm



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Mass flow table for water quantity in t/h for 20°C

Kv >	Δp [bar]	DN											
		15	20	25	32	40	50	65	80	100	125	150	200
2 m/s	0,5	0,57	1,02	1,59	2,60	4,07	6,36	10,74	16,27	25,42	39,72	57,20	101,69
	1,0	0,81	1,44	2,25	3,68	5,75	8,99	15,19	23,01	35,95	56,18	80,89	143,81
	1,5	0,99	1,76	2,75	4,51	7,05	11,01	18,60	28,18	44,03	68,80	99,08	176,13
	2,0	1,14	2,03	3,18	5,21	8,14	12,71	21,48	32,54	50,85	79,45	114,40	203,38
	2,5	1,28	2,27	3,55	5,82	9,10	14,21	24,02	36,38	56,85	88,82	127,91	227,39
	3,0	1,40	2,49	3,89	6,38	9,96	15,57	26,31	39,85	62,27	97,30	140,11	249,10
	3,5	1,51	2,69	4,20	6,89	10,76	16,82	28,42	43,05	67,63	105,10	151,34	269,05
	4,0	1,62	2,88	4,49	7,36	11,50	17,98	30,38	46,02	71,91	112,35	161,79	287,62
	4,5	1,72	3,05	4,77	7,81	12,20	19,07	32,22	48,81	76,27	119,17	171,60	305,07
	5,0	1,81	3,22	5,02	8,23	12,86	20,10	33,97	51,45	80,39	125,61	180,89	321,57
	6,0	1,98	3,52	5,50	9,02	14,09	22,02	37,21	56,36	88,07	137,60	198,15	352,27
	7,0	2,14	3,80	5,95	9,74	15,22	23,78	40,19	60,88	95,12	148,63	214,03	
	8,0	2,29	4,07	6,36	10,41	16,27	25,42	42,96	65,06	101,69	158,89	228,80	
	9,0	2,46	4,31	6,74	11,04	17,26	26,97	45,57	69,03	107,86	168,53	242,68	
	10,0	2,56	4,55	7,11	11,64	18,19	28,42	48,04	72,76	113,69	177,65	255,81	
	11,0	2,68	4,77	7,45	12,21								
	12,0	2,80	4,98	7,78	12,75								
	13,0	2,92	5,19	8,10	13,47								
	14,0	3,03	5,38	8,41	13,78								
	15,0	3,13	5,57	8,70	14,26								
	16,0	3,24	5,75	8,99	14,73								
	17,0	3,34	5,93	9,26	15,18								
	18,0	3,43	6,10	9,53	15,62								
	19,0	3,53	6,27	9,79	16,05								
	20,0	3,62	6,43	10,05	16,46								
	22,0	3,79	6,75	10,54	17,27								
	24,0	3,96	7,05	11,01	18,04								
	25,0	4,04	7,19	11,24	18,41								