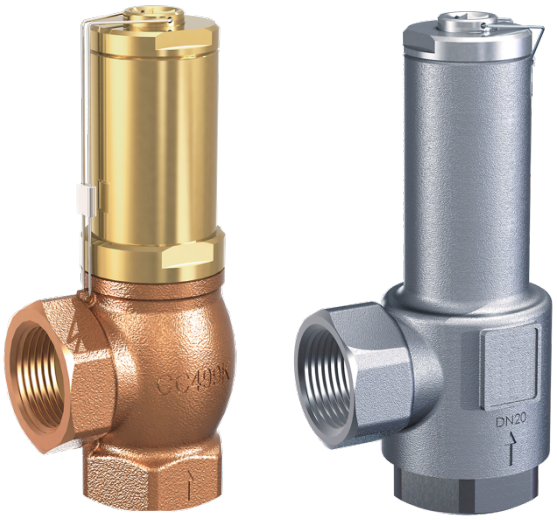
Overflow valve TYPE UV01 / UV02 / UV03 / UV04



Specification:

Angle-type overflow valves for the protection of pumps against overloading in closed circuits.

Product features:

- suitable for neutral and non-neutral, not adhesive liquid and gaseous media.
- not counter pressure compensated
- can be set and adjusted during the operating conditions
- medium cannot escape into the atmosphere
- installation possible in any position

Connection:
3/8", ½", ¾", 1", 1 ¼", 1 ½", 2"

Temperature:
-60°C to +225°C

Pressure range:
0,2 bar – 20,0 bar

Materials:

Component	Type UV01	Type UV02	Type UV03	Type UV04
Body	Gunmetal CC499K	Gunmetal CC499K	Stainless steel 1.4408	Stainless steel 1.4408
Internal parts	brass CW617N	brass CW617N	Stainless steel 1.4404	Stainless steel 1.4404
Spring	Stainless steel	Stainless steel	Stainless steel 1.4310	Stainless steel 1.4310
Seal	FKM	PTFE	FKM	PTFE

Seal:

FKM	Fluorocarbon	0,2 bar – 12,0 bar	-20°C to +200°C
PTFE	Polytetrafluoroethylene	0,5 bar – 20,0 bar	-60°C to +225°C

If the seat seal is made of PTFE the O-rings of the body and setting spindle seal are made of FPM.

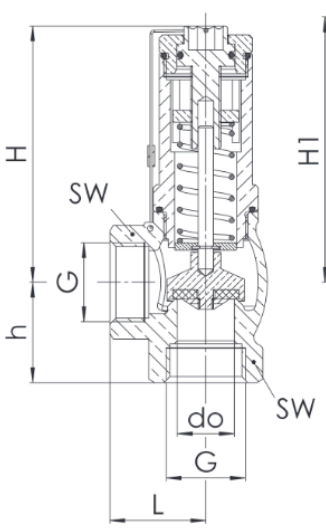
Possible Approvals:

- European Pressure Equipment Directive
- GOST-R
- DGR 97/23/EG
- Germanischer Lloyd GL
- Lloyd´s Register EMEA LR EMEA
- American Bureau of Shipping ABS
- Bureau Veritas BV

Dimensions UV01/UV02:

Diameter DN	10	15	20	25	32	40	50
G*	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
G*	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
L	27	30	33	40	45	50	60
H	60	69	86	101	118	139	149
H1	63	72	88,5	104	121	141,5	152
h	26	30	35	41	45	51	60
SW	24	28	34	41	52	58	70
do	10	13	19	25	30	38	50
weight kg	0,3	0,4	0,7	1,2	1,9	2,5	3,8

* connection acc. to DIN EN ISO 228

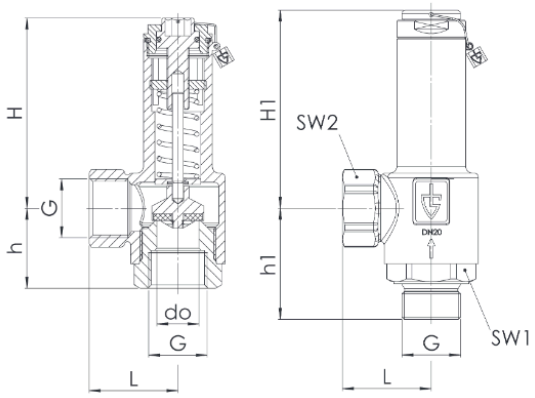


Set-pressure tamper-proof by means of a sealing cap.

Dimensions UV03 / UV04:

Diameter DN	10	15	20	25	32	40	50
G*	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
G*	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
L	30	34	40	46	50	61	67
H	60	69	86	101	118	139	149
H1	62,5	71	88,5	104	121	141,5	153,5
h	29	33	36	48	52	60	66
h1	42	49	50	67	71	85	91
SW1	26	30	36	46	55	58	70
SW2	24	27	32	41	50	65	70
do	10	13	19	25	30	38	50
weight kg	0,3	0,4	0,7	1,2	1,9	2,5	3,8

* connection acc. to DIN EN ISO 228



Set-pressure tamper-proof by means of a sealing cap.

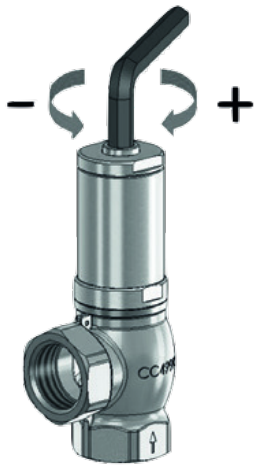
Installation and Assembly:

To ensure a satisfactory operation of the valves they must be assembled in such a way that the safety valve is not exposed to any impermissible static, dynamic or thermal loads. The installation has to be flushed before installing the valve. If an installation is not sufficiently cleaned or the valve is installed improperly, the valve may leak even the first time it responds. Appropriate safety measures must be taken at the place of installation of the valves if the medium that discharges upon actuation of the valve can lead to direct or indirect hazards to people or the environment. Pressure limiting valves are to be installed vertically, if possible, and with the bonnet pointing upward. A different installation position must be clarified with the manufacturer. Overflow valves can be installed in any position. The function of the valves is guaranteed in every position. During assembly always make sure not to apply any force when fastening the connecting thread and not to screw it in too far, as this could otherwise damage the seat of the valve. Do not allow sealing material such as hemp or Teflon to penetrate into the valve.

Setting:

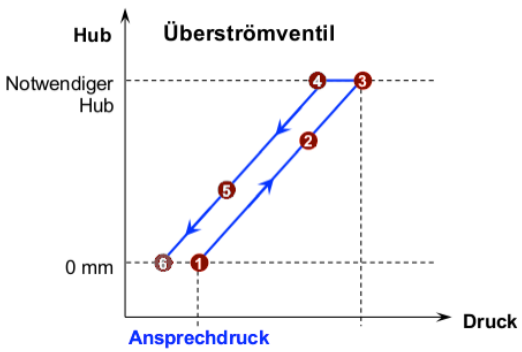
The valves can be delivered with a set pressure and sealed by the factory or without set pressure with the desired range of adjustment.
Valves which have been set and sealed by the factory are marked with the set pressure. Before changing the set pressure, the seal has to be removed. If valves are unsealed, the desired pressure can be set within the pressure range of the spring.

1. Carry out pressure adjustment at hexagonal wrench key.
Turning clockwise increases pressure, turning anticlockwise decreases pressure. The valves can be set when backpressure prevails or when medium is flowing through the valve. The setting can be secured by means of a seal.



Function:

1. Set pressure is reached; Overflow valve is still closed
2. Set pressure is exceeded; Overflow valve opens in proportion to the pressure increase and results from performance
3. Required overflow rate is reached; accordingly necessary Hub sets in.
4. System pressure drops again; Starting the closing operation
5. System pressure continues to fall and stroke is less
6. Valve is just below set pressure again closed and sealed; Lift equal to zero



Capacity table for air:

Kv-values at 1 bar overpressure																												
DN	**10**				**15**				**20**				**25**				**32**				**40**				**50**			
	Air (Nm^3/h)				Air (Nm^3/h)				Air (Nm^3/h)				Air (Nm^3/h)				Air (Nm^3/h)				Air (Nm^3/h)				Air (Nm^3/h)			
Bar	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20
0,2	24				53				177				200				600				930				1500			
0,5	28	83			61	147			200	209			220	375			680	717			970	847			1620	1376		
0,8	32	90			67	153			220	220			245	384			700	771			1050	878			1740	1478		
1		95				158				228				390				808				899				1546		
1,5		101				173				257				433				901				1033				1734		
2		111	48			180	86			287	159			462	302			977	233			1104	426			1904	788	
2,5		119	50			202	89			306	168			495	311			1031	257			1205	447			1953	802	
3			51				95				188				322				272				481				821	
4			62				101				213				341				311				527				878	
5			80				105				242				361				352				566				942	
6			90				111				250				380				397				597				994	
7			96				118				257				391				437				764				1050	
8			114				117				314				347				492				910				1123	
9			115				123				324				301				546				949				1187	
10			122				133				331				288				600				1023				1280	
11			121				138				339				274				569				1070				1358	
12			126	96			138	112			354	221			261	305			538	594			1095	682			1480	1237
13				109				103				206				291				625				758				1277
14				116				94				266				282				656				834				1388
15				120				85				240				269				687				911				1499
16				122				76				132				257				716				987				1609
17				124				57				115				245				737				954				1821
18				129				56				84				233				758				922				2033
19				134				44				50				220				779				889				2245
20				140				36				45				208				801				851				2357

Capacity table for water:

Kv-values at 1 bar overpressure																												
DN	**10**				**15**				**20**				**25**				**32**				**40**				**50**			
	water (m^3/h)				water (m^3/h)				water (m^3/h)				water (m^3/h)				water (m^3/h)				water (m^3/h)				water (m^3/h)			
Bar	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20
0,2	2,7				434				5,6				6,0				18,3				29,0				41,0			
0,5	2,9	2,7			4,6	4,3			5,6	6,1			6,4	10,8			19,5	16,0			29,0	21,7			44,4	31,6		
0,8	2,9	2,8			4,9	4,5			5,6	6,3			7,1	11,5			20,0	16,4			29,0	22,6			47,0	34,0		
1		3,0				4,6				6,5				11,9				16,7				23,3				35,6		
1,5		3,2				4,8				6,7				12,6				17,5				24,0				37,7		
2		3,4	1,6			5,0	1,8			6,9	3,7			13,0	4,2			18,1	6,2			25,2	8,8			40,6	17,9	
2,5		3,7	1,7			5,2	1,8			7,3	3,8			13,7	4,3			18,9	6,2			26,1	9,1			43,0	19,4	
3			1,9				1,8				4,1				4,3				6,1				9,3				21,20	
4			2,2				1,7				4,6				4,5				6,1				9,7				24,7	
5			2,5				1,6				5,1				4,6				6,0				10,3				28,9	
6			2,8				1,5				6,1				4,7				5,9				10,6				30,1	
7			2,9				1,4				6,5				5,0				5,8				11,9				31,7	
8			3,1				1,4				7,1				5,1				5,6				13,1				34,2	
9			3,2				1,4				7,3				5,3				5,5				14,3				37,5	
10			3,4				1,4				8,3				5,5				5,3				15,7				39,3	
11			3,5				1,4				9,1				5,8				5,2				17,2				42,4	
12			3,7	1,7			1,3	0,4			9,3	2,8			5,9	2,2			5,0	6,8			17,6	10,1			43,9	18,9
13				1,4				0,4				2,4				2,2				6,5				10,3				21,2
14				1,3				0,5				2,2				1,9				6,3				10,5				24,1
15				1,1				0,5				1,7				1,6				6,1				10,6				25,7
16				0,8				0,5				1,4				1,3				6,0				10,9				27,6
17				0,6				0,5				1,1				1,1				5,8				11,0				29,3
18				0,4				0,6				0,9				1,0				5,6				11,3				31,8
19				0,2				0,6				0,7				0,8				5,1				11,4				34,6
20				0,2				0,6				0,7				0,7				5,0				11,5				36,6

Article number:

Component	Type UV01	Type UV02	Type UV03	Type UV04
Body	Gunmetal	Gunmetal	Stainless steel	Stainless steel
Internal parts	Brass	Brass	Stainless steel	Stainless steel
Seal	FKM	PTFE	FKM	PTFE

Type	pressure range	connection	diameter
UV01	00 – 0,2-0,8 bar*	00 – female thread	02 – 3/8"
UV02	01 – 0,5-2,5 bar	01 – male thread***	03 – 1/2"
UV03	02 – 2-12 bar		04 – 3/4"
UV04	03 – 12-20 bar**		05 – 1"
			06 – 1 1/4"
			07 – 1 1/2"
			08 – 2"

Example UV01010004:

UV01	01	00	04

Article No. UV01010004
Overflow valve made of gunmetal
Internal parts brass
Pressure range: 0.5 – 2.5 bar
Connection: female thread
Diameter: 3/4" Inch

* only available for UV01 and UV02
** only available for UV02 and UV94
*** only available for UV03 and UV04, male thread only on entry

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