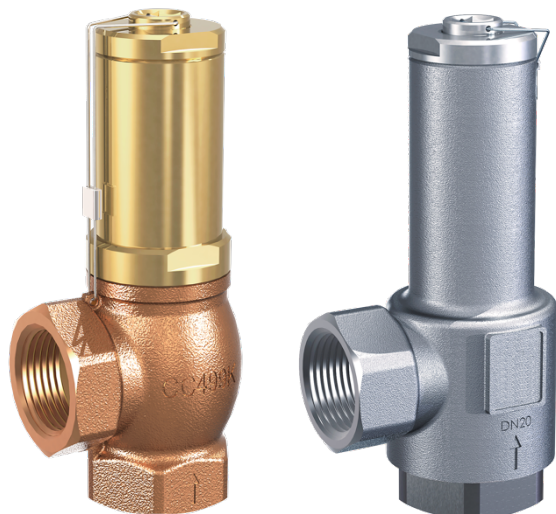


Overflow valve TYPE UV01 / UV02 / UV03 / UV04



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", 1/2", 3/4", 1", 1 1/4", 1 1/2", 2"

Temperature:

-60°C to +225°C

Pressure range:

0,2 bar – 20,0 bar

Materials:

Component

Body
Internal parts
Spring
Seal

Type UV01

Gunmetal CC499K
brass CW617N
Stainless steel
FKM

Type UV02

Gunmetal CC499K
brass CW617N
Stainless steel
PTFE

Type UV03

Stainless steel 1.4408
Stainless steel 1.4404
Stainless steel 1.4310
FKM

Type UV04

Stainless steel 1.4408
Stainless steel 1.4404
Stainless steel 1.4310
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.

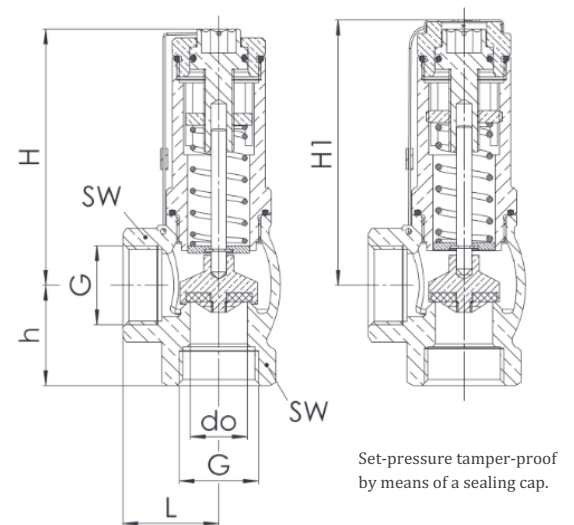
Possible Approvals:

- 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

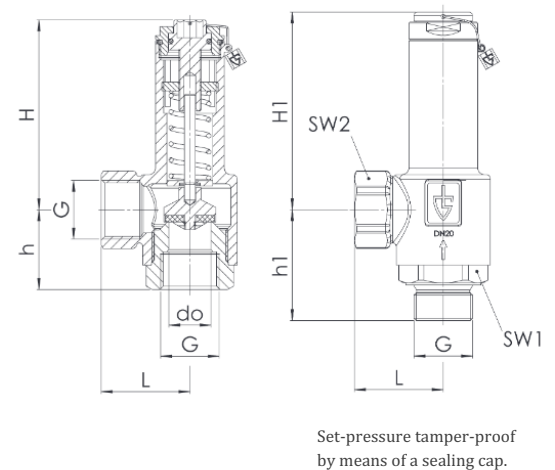
* connection acc. to DIN EN ISO 228



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



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.

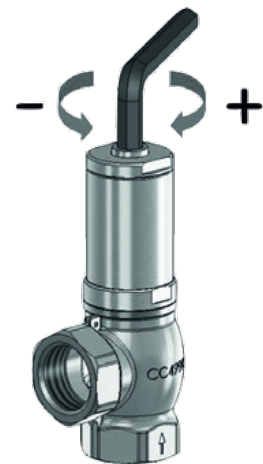
Setting:

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.

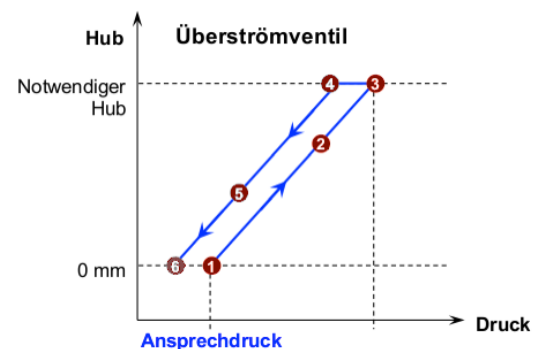
1. Carry out pressure adjustment at hexagonal wrench key.

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 (Nm³/h)					Air (Nm³/h)				Air (Nm³/h)				Air (Nm³/h)				Air (Nm³/h)				Air (Nm³/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	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 (m³/h)				water (m³/h)				water (m³/h)				water (m³/h)				water (m³/h)				water (m³/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				21,2 0	
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
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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

Image similar, subject change without notice.