

Overflow valve TYPE UV05 / UV06 / UV07 / UV08



Specification:

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.
- Can be set and adjusted during the operating conditions
- Installation possible in any position
- G 1/4" inch axial for pressure gauge

Connection:

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

Temperature:

-20°C to max. +120°C
- depending on set pressure

Pressure range:

0,5 bar – 10,0 bar

Materials:

Component

Body
Internal parts
Spring
Valve seat
Seal

Type UV05

Gunmetal CC499K
Gunmetal/brass
Spring steel 1.1200
Stainless steel 1.4404
FKM

Type UV06

Gunmetal CC499K
Gunmetal/brass
Spring steel 1.1200
Stainless steel 1.4404
PTFE

Type UV07

Stainless steel 1.4408
Stainless steel 1.4404/1.4408
Spring steel 1.1200
Stainless steel 1.4404
FKM

Type UV08

Stainless steel 1.4408
Stainless steel 1.4404/1.4408
Spring steel 1.1200
Stainless steel 1.4404
PTFE

Seal / Elastomere:

EPDM Ethylen-Propylene-Diene

FKM Fluorcarbon

set pressure up to 6 bar: -20°C to +120°C

set pressure starting 6 bar: -20°C to +95°C

set pressure up to 6 bar: -20°C to +120°C

set pressure starting 6 bar: -20°C to +95°C

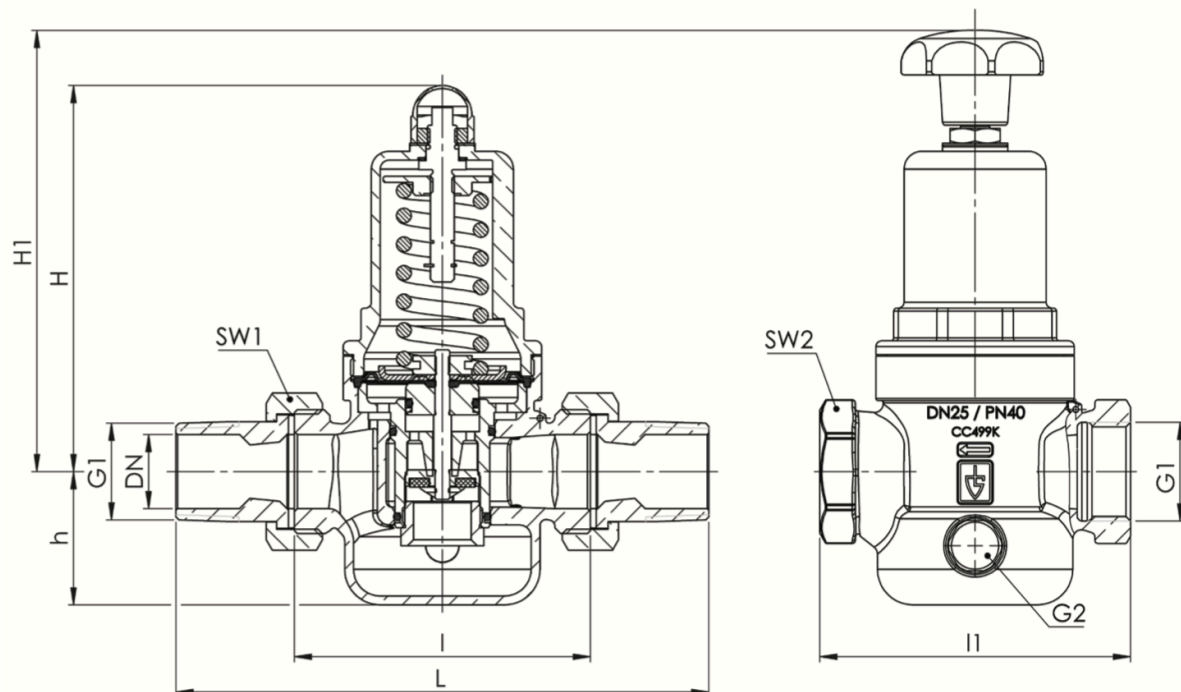
Approvals:

- 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:

Diameter DN	15	20	25	32	40	50
Inlet G*	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Outlet G*	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
L	142	158	180	193	226	252
I	80	90	100	105	130	140
I1	85	95	105	-	-	-
H	102	102	130	130	165	165
H1	124	124	161	161	198	198
h	33	33	45	45	70	70
SW1	30	37	46	52	65	75
SW2	28	35	43	48	57	68
Pressure gauge connection G2	1/4" axial	1/4" axial	1/4" axial	1/4" axial	1/4" axial	1/4" axial
Weight UV05/UV06 in kg	1,2	1,4	2,4	2,6	5,5	6,0
Weight UV07/UV08 in kg	1,2	1,3	2,3	2,5	5,2	5,7
Coefficient of flow K _{VS} in m ³ /h	2,1	2,4	5,1	5,5	10,5	11,5
Set pressure	0,5-10	0,5-10	0,5-10	0,5-10	0,5-10	0,5-10
Range of adjustment	0,5-2 1,5-6 5,5-10	0,5-2 1,5-6 5,5-10	0,5-2 1,5-6 5,5-10	0,5-2 1,5-6 5,5-10	0,5-2 1,5-6 5,5-10	0,5-2 1,5-6 5,5-10

* Male thread BSP-T / BSP-T DIN EN 10226, ISO 7-1 / DIN EN 10226, ISO 7-1
 Female thread BSP-P / BSP-P DIN EN ISO 228-1 / DIN EN ISO 228-1 -> available in sizes 1/2", 3/4" and 1"



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.

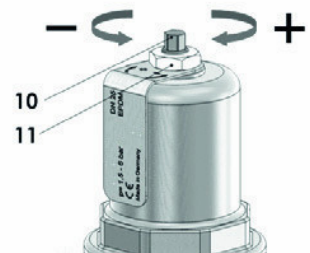
Setting:

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.

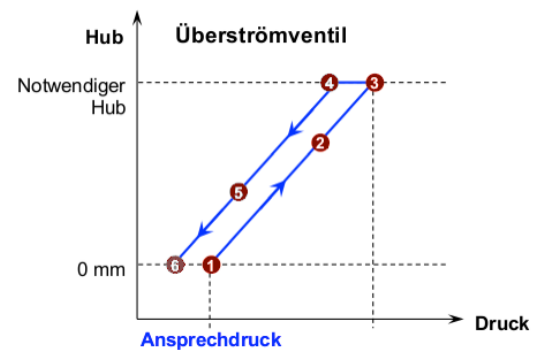
1. Remove plastic protective cap; loosen counter-nut (11).
2. Adjust pressure at adjusting spindle (10). Turn clockwise to increase pressure, turn counter clockwise to reduce pressure. By connecting a pressure gauge (available as accessory) the set pressure can be conveniently read from the pressure gauge.
3. Tighten locknut (11) again.

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:

Kv-values at 1 bar overpressure																		
DN	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	0,5 - 2	1,5 - 6	5,5 - 10	0,5 - 2	1,5 - 6	5,5 - 10	0,5 - 2	1,5 - 6	5,5 - 10	0,5 - 2	1,5 - 6	5,5 - 10	0,5 - 2	1,5 - 6	5,5 - 10	0,5 - 2	1,5 - 6	5,5 - 10
0,5	73			77			189			193			417			445		
1	89			94			231			239			498			537		
1,5	102			108	107		264	185		273	196		587	370		624	408	
2	117	103		121	126		303	226		314	238		636	429		683	472	
3		119			153			282			291			506			557	
4		146			176			330			338			543			615	
5		170			194			367			379			625			684	
5,5		187	139		206	157		386	183		394	186		653	375		719	417
6		195	147		216	163		405	194		418	202		708	395		760	443
7		203	162			178			223			229			400			502
8			179			190			259			264			407			517
9			218			225			285			289			432			564
10			255			261			303			314			465			601

Kv-values at 1 bar overpressure																		
DN	15			20			25			32			40			50		
	Water (Nm3/h)			Water (Nm3/h)			Water (Nm3/h)			Water (Nm3/h)			Water (Nm3/h)			Water (Nm3/h)		
Bar	0,5 - 2	1,5 - 6	5,5 - 10	0,5 - 2	1,5 - 6	5,5 - 10	0,5 - 2	1,5 - 6	5,5 - 10	0,5 - 2	1,5 - 6	5,5 - 10	0,5 - 2	1,5 - 6	5,5 - 10	0,5 - 2	1,5 - 6	5,5 - 10
0,5	2,7			2,9			5,5			6,2			12,4			12,9		
1	2,9			3,3			6,1			6,9			12,9			13,8		
1,5	3,4	3,1		3,6	3,4		6,6	5,6		7,5	6,4		13,2	9,0		14,4	9,4	
2	3,6	3,2		3,9	3,4		6,9	5,7		7,8	6,4		13,5	9,1		14,9	9,4	
3		3,3			3,5			5,9			6,5			9,3			9,5	
4		3,4			3,7			6,1			7,2			9,5			9,9	
5		3,3			3,7			6,2			7,5			9,7			10,2	
5,5		3,0	2,3		3,6	2,7		5,8	3,2		6,9	4,1		10,1	7,2		10,5	7,7
6		2,9	2,4		3,6	2,7		5,4	3,3		6,7	4,2		10,4	7,3		10,9	8,0
7			2,4			2,6			3,9			4,5			7,5			8,1
8			2,4			2,6			3,8			4,4			7,3			7,8
9			2,3			2,5			3,7			4,2			6,9			7,4
10			2,2			2,5			3,6			4,0			6,5			7,1

Article number:

Component	type UV05	type UV06	type UV07	type UV08
Body	Gunmetal	Gunmetal	Stainless steel	Stainless steel
Internal parts	Brass	Brass	Stainless steel	Stainless steel
Seal	EPDM	FKM	EPDM	FKM

Type	pressure range	connection	diameter
UV05	01 – 0,5-2,0 bar	00 – male thread	03 – 1/2"
UV06	02 – 1,5-6,0 bar	01 – female thread*	04 – 3/4"
UV07	03 – 5,5-10 bar		05 – 1"
UV08			06 – 1 1/4"
			07 – 1 1/2"
			08 – 2"

Example UV05010004:

UV05	01	00	04
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Article No. UV05010004
 Overflow valve made of gunmetal
 Internal parts brass
 Pressure range: 0.5 – 2.0 bar
 Connection: male thread
 Diameter: 3/4" Inch

* available in sizes 1/2", 3/4" and 1"

Image similar, subject change without notice.