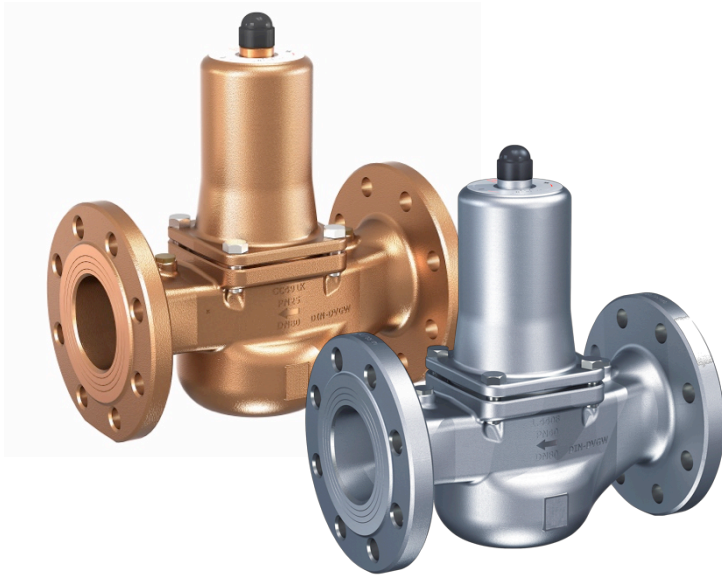


## Flange-Overflow valve TYPE UV09 / UV10 / UV11 / UV12



### Specification:

Flange-Overflow valves for the protection of pumps against overloading in closed circuits.

### Product features:

- suitable for neutral and non-neutral, not adhesive liquids and gaseous media.
- Can be set and adjusted during the operating conditions
- Installation possible in any position
- Manometer connection G 1/4" inch

### Connection:

DN15 – DN100

### Temperature:

-10°C to +95°C

### Pressure range:

0,5 bar to 10,0 bar

### Materials:

Component	Type UV09	Type UV10	Type UV11	Type UV12
Body	Gunmetall CC499K	Gunmetall CC499K	Stainless steel 1.4408	Stainless steel 1.4408
Internal parts	brass CW617N	brass CW617N	Stainless steel 1.4401	Stainless steel 1.4401
Spring	Stainless steel	Stainless steel	Stainless steel 1.4320	Stainless steel 1.4320
Seal	EPDM	FKM	EPDM	FKM
Pressure	PN40	PN40	PN40	PN40

### Seal / Elastomere:

<b>EPDM</b>	Ethylen-Propylene-Diene	0,5 bar – 10,0 bar	-10°C to 95°C
<b>FKM</b>	Fluorcarbon	0,5 bar – 10,0 bar	-10°C to 95°C

### Approvals:

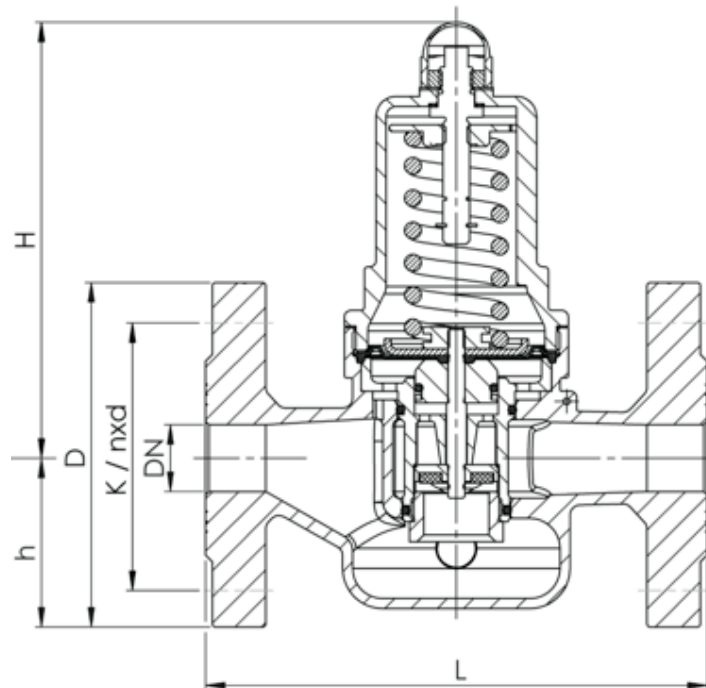
- European Pressure Equipment Directive
- GOST-R
- DGR 97/23/EG
- Germanischer Lloyd GL
- Lloyd 's Register EMEA LR EMEA
- American Bureau of Shipping ABS
- Bureau Veritas BV

### Manometer connection:

Up to DN50 1 connection axial G 1/4" inch at frontside

From DN65 connections radial G 1/4" inch

**Dimensions:**



<b>Diameter</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>32</b>	<b>40</b>	<b>50</b>	<b>65</b>	<b>80</b>	<b>100</b>
Inlet DN*	15	20	25	32	40	50	65	80	100/PN16
Outlet DN*	15	20	25	32	40	50	65	80	100/PN16
L	130	150	160	180	200	230	290	310	350
D	95	105	115	140	150	165	185	200	220
H	102	130	130	130	166	166	245	245	320
h	46	50	55	68	73	80	89	97	112
K / nxd	65/4xM12	75/4xM12	85/4xM12	100/4xM16	110/4xM16	125/4xM16	145/8xM16	160/8xM16	180/8xM16
Weight kg	2,8	3,9	4,3	5,5	8,4	10,2	19	20,5	43,58
Set pressure	0,5-10	0,5-10	0,5-10	0,5-10	0,5-10	0,5-10	1-6	1-6	1,0-5,5
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	1-6	1-6	1,0-5,5

\* Connection according to DIN EN 1092 PN40 | Diameter DN100 according to DIN EN 1092 PN16

**Installation and Assembly:**

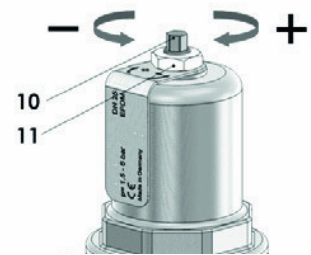
To ensure a satisfactory operation of the valves they must be assembled in such a way that the safety valve is not exposed to any impermissible static, dynamic or thermal loads. The installation has to be flushed before installing the valve. If an installation is not sufficiently cleaned or the valve 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.

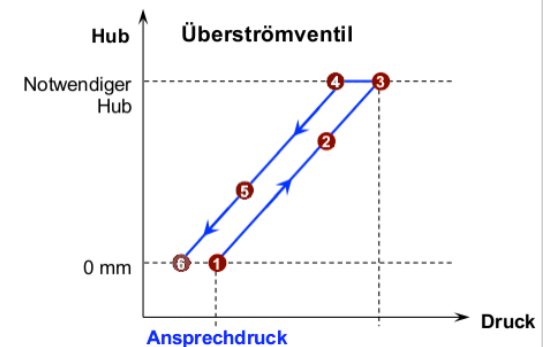
1. Remove plastic protective cap; loosen counter-nut (11).
2. Adjust pressure at adjusting spindle (10). Turn clockwise to increase pressure, turn counter clockwise to reduce pressure. By connecting a pressure gauge (available as accessory) the set pressure can be conveniently read from the pressure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

Air (Nm <sup>3</sup> /h)		15			20			25			32			40			50			65	80	100	
DN	Bar	0,5-2,0	1,5-6,0	5,5-10	0,5-2,0	1,5-6,0	5,5-10	0,5-2,0	1,5-6,0	5,5-10	0,5-2,0	1,5-6,0	5,5-10	0,5-2,0	1,5-6,0	5,5-10	0,5-2,0	1,5-6,0	5,5-10	1,0-6,0	1,0-6,0	1,0-5,5	
0,5		73			175			189			193			417			445						
1		89			208			231			239			498			537			945	1010	1230	
1,5		102	103		247	175		264	185		273	196		587	370		624	408		1020	1115	1350	
2		117	119		285	214		303	226		314	238		636	429		683	472		1255	1315	1510	
3			146			245			282			291			506			557		1480	1620	1820	
4			170			292			330			338			543			615		1810	1890	2090	
5			187			329			367			379			625			684		1895	2060	2320	
5,5			195	139		354	173		386	183		394	186		653	375		719	417	1930	2150	2450	
6			203	147		375	186		405	194		418	202		708	395		760	443	29,0	2230		
7				162			210						223			400				502			
8				179			249			259			264			407				517			
9				218			273			285			289			432				564			
10				255			294			303			314			465				601			

**Kv-values at 1 bar overpressure**

Water (m3/h)																						
DN	15			20			25			32			40			50			65	80	100	
Bar	0,5 - 2,0	1,5 - 6,0	5,5 - 10	0,5 - 2,0	1,5 - 6,0	5,5 - 10	0,5 - 2,0	1,5 - 6,0	5,5 - 10	0,5 - 2,0	1,5 - 6,0	5,5 - 10	0,5 - 2,0	1,5 - 6,0	5,5 - 10	0,5 - 2,0	1,5 - 6,0	5,5 - 10	1,0 - 6,0	1,0 - 6,0	1,0 - 5,5	
0,5	2,7			5,1			5,5			6,2			12,4			12,9						
1	2,9			5,4			6,1			6,9			12,9			13,8			23,0	26,0	31,0	
1,5	3,4	3,1		5,9	5,2		6,6	5,6		7,5	6,4		13,2	9,0		14,4	9,4		24,0	26,0	31,7	
2	3,6	3,2		6,3	5,2		6,9	5,7		7,8	6,4		13,5	9,1		14,9	9,4		25,0	27,0	33,0	
3		3,3			5,3			5,9			6,5			9,3			9,5		26,0	29,0	34,5	
4		3,4			5,3			6,1			7,2			9,5			9,9		28,0	30,0	36,0	
5		3,3			5,4			6,2			7,5			9,7			10,2		28,0	31,0	38,7	
5,5		3,0	2,3		5,2	2,9		5,8	3,2		6,9	4,1		10,1	7,2		10,5	7,7	28,0	32,0	40,0	
6		2,9	2,4		5,1	3,0		5,4	3,3		6,7	4,2		10,4	7,3		10,9	8,0	29,0	32,0		
7			2,4			3,3			3,9			4,5			7,5			8,1				
8			2,4			3,2			3,8			4,4			7,3			7,8				
9			2,3			3,1			3,7			4,2			6,9			7,4				
10			2,2			3,1			3,6			4,0			6,5			7,1				

**Article number:**

Component	Type UV09	Type UV10	Type UV11	Type UV12
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
UV09	01 – 0,5-2,0 bar	00 – Flange	03 – DN15
UV10	02 – 1,5-6,0 bar		04 – DN20
UV11	03 – 5,5-10 bar		05 – DN25
UV12			06 – DN32
			07 – DN40
			08 – DN50
			09 – DN65*
			10 – DN80*
			11 – DN100*

**Example UV09010004:**

**UV09** | **01** | **00** | **04**

Part No. UV09010004  
 Overflow valve made of gunmetal  
 Internals parts brass  
 Pressure range: 0.5 – 2.0 bar  
 Connection: Flange  
 Diameter: DN 20

\*) DN65 and DN80 only available with pressure range 1.0 – 6.0 bar, DN100 only with pressure range 02 1.0 – 5.5

Image similar, technical changes possible.