

## Overflow valve TYPE UV16



### 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.
- 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"

### Type:

Female thread DIN EN ISO 288-1

### Temperature:

-60°C to +225°C

### Pressure range:

0,2 bar – 20,0 bar

### Materials:

#### Component

##### Body:

#### Type UV16

Straightway form

##### Inlet / Outlet body:

Stainless steel ASME 316L / CF8M

##### Internal parts:

Stainless steel ASME 316L / CF8M

##### Spring:

Stainless steel ASME 302

### Seal:

#### NBR

Nitrile rubber 0,2 bar – 12,0 bar -30°C to +130°C

#### FKM

Fluorocarbon 0,2 bar – 12,0 bar -20°C to +200°C

#### EPDM

Ethylene propylene diene 0,2 bar – 12,0 bar -50°C to +150°C

#### PTFE

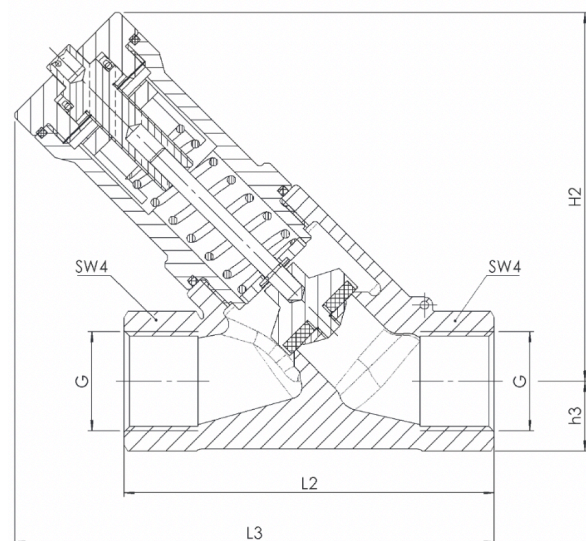
Polytetrafluorethylene 0,5 bar – 20,0 bar -60°C to +225°C

Body seal and spindle seal in PTFE

## Dimensions UV16:

Nominal diameter DN	10	15	20	25
G*	3/8"	1/2"	3/4"	1"
G*	3/8"	1/2"	3/4"	1"
L2	69	72	90	95
L3	85,2	87,2	116,5	131,4
H2	65	65	90	103,5
h3	11,8	13,8	16,5	20,8
SW4	22	27	31	41
Set pressure (bar)	0,2 – 20 bar			
Range of adjustment (bar)	0,2 – 0,8 bar			
	0,5 – 2,5 bar			
	2,0 – 12,0 bar			
	12,0 – 20,0 bar			
weight kg	0,3	0,4	0,7	1,2

\* 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.

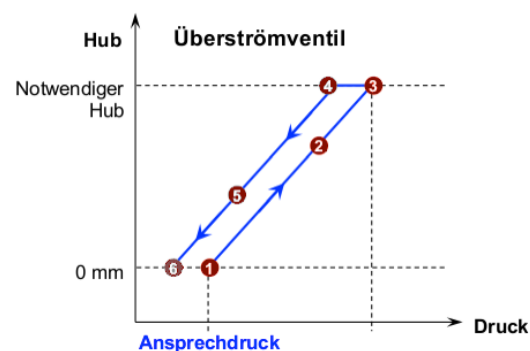
Valves which have been set and sealed by the factory are marked with the set pressure. Before changing the set pressure, the seal has to be removed. If valves are unsealed, the desired pressure can be set within the pressure range of the spring.

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			
	Air (Nm <sup>3</sup> /h)				Air (Nm <sup>3</sup> /h)				Air (Nm <sup>3</sup> /h)				Air (Nm <sup>3</sup> /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	24				53				177				200			
0,5	28	83			61	147			200	209			220	375		
0,8	32	90			67	153			220	220			245	384		
1		95				158				228				390		
1,5		101				173				257				433		
2		111	48			180	86			287	159			462	302	
2,5		119	50			202	89			306	168			495	311	
3			51				95				188				322	
4			62				101				213				341	
5			80				105				242				361	
6			90				111				250				380	
7			96				118				257				391	
8			114				117				314				347	
9			115				123				324				301	
10			122				133				331				288	
11			121				138				339				274	
12			126	96			138	112			354	221			261	305
13				109				103				206				291
14				116				94				166				282
15				120				85				140				269
16				122				76				132				257
17				124				57				115				245
18				129				56				84				233
19				134				44				50				220
20				140				36				45				208

Capacity table for water:

Kv-values at 1 bar overpressure																
DN	10				15				20				25			
	water (m <sup>3</sup> /h)				water (m <sup>3</sup> /h)				water (m <sup>3</sup> /h)				water (m <sup>3</sup> /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	2,7				4,4				5,6				6,0			
0,5	2,9	2,7			4,6	4,3			5,6	6,1			6,4	10,8		
0,8	2,9	2,8			4,9	4,5			5,6	6,3			7,1	11,5		
1		3,0			4,6				6,5					11,9		
1,5		3,2			4,8				6,7					12,6		
2		3,4	1,6		5,0	1,8			6,9	3,7				13,0	4,2	
2,5		3,7	1,7		5,2	1,8			7,3	3,8				13,7	4,3	
3			1,9			1,8				4,1					4,3	
4			2,2			1,7				4,6					4,5	
5			2,5			1,6				5,1					4,6	
6			2,8			1,5				6,1					4,7	
7			2,9			1,5				6,5					5,0	
8			3,1			1,4				7,1					5,1	
9			3,2			1,4				7,3					5,3	
10			3,4			1,4				8,3					5,5	
11			3,5			1,4				9,1					5,8	
12			3,7	1,7		1,3	0,4			9,3	2,8				5,9	2,2
13				1,4			0,4				2,4					2,2
14				1,3			0,5				2,2					1,9
15				1,1			0,5				1,7					1,6
16				0,8			0,5				1,4					1,3
17				0,6			0,5				1,1					1,1
18				0,4			0,6				0,9					1,0
19				0,2			0,6				0,7					0,8
20				0,2			0,6				0,7					0,7

Capacity table for steam:

Kv-values at 1 bar overpressure																
DN	10				15				20				25			
	Steam (kg/h)				Steam (kg/h)				Steam (kg/h)				Steam (kg/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	18				41				138				156			
0,5	22	65			47	113			156	163			172	295		
0,8	25	70			52	120			172	173			191	305		
1		74				125				181				313		
1,5		81				135				200				345		
2		86	40			143	73			221	126			373	218	
2,5		93	45			157	79			235	141			384	244	
3			43				80				156				258	
4			53				79				160				308	
5			66				82				176				322	
6			75				88				200				326	
7			81				93				198				298	
8			89				96				190				279	
9			89				98				193				250	
10			97				106				192				273	
11			94				106				189				262	
12			101	79			105	78			204	183			282	247
13				84				68				174				189
14				90				57				162				201
15				95				54				123				213
16				94				51				130				180
17				99				46				110				142
18				96				32				87				150
19				101				28				61				105
20				105				21				32				165

## Article number:

Type	Pressure range	Connection	Seal	Diameter
<b>UV16</b>	00 – 0,2 - 0,8 bar <b>01 – 0,5 - 2,5 bar</b> 02 – 2,0 - 12,0 bar 03 – 12,0 - 20,0 bar*	<b>0 – female thread</b>	0 – NBR 1 – FKM <b>2 – EPDM</b> 3 – PTFE	02 – 3/8" 03 – 1/2" <b>04 – 3/4"</b> 05 – 1"

\*only available for PTFE

### Example UV16010204:

**UV01** | **01** | **0** | **2** | **04**

#### Article No. **UV16010204**

Overflow valve made of Stainless steel

Pressure range: 0,5 – 2,5 bar

Connection: Innengewinde

Seal: EPDM

Diameter: 3/4" inch

Image similar, subject change without notice.