

TRV-S is a butterfly valve designed to be fitted between two counter flanges PN6, PN10 or PN16.

Ethylene-propylene rubber lining for tight close off.

The special lining of the body eliminates the need for flange gaskets.

TRV-S can be direct mounted to an electric actuator. The actuator is connected by a flange according to EN ISO 5211.

Actuator type is determined by control system type, actuator force, running time etc. Suitable actuators are MB15 and MB30.



## APPLICATIONS

The valve can handle the following types of media:

- Hot water and de-aerated cooling water.
- Low-pressure steam up to 110 °C (230 °F)
- Water with hydrazine and phosphate water treatment
- De-aerated water with anti-freeze additives, such as glycol (up to 50%) and brines.

## TECHNICAL SPECIFICATION

Design ..... butterfly valve  
 Pressure rating ..... PN16 (232 psi)  
 Temperature of media ..... - 10 - + 130 °C (14 °F to 266 °F)  
 ΔPm ..... max. 400 kPa (58 psi)  
 Leakage rate ..... <0,0001 % of Kv/Cv  
 Suitable counter flange type:

- PN6 (87 psi) acc. to DIN 2631
- PN10 (145 psi) acc to DIN 2632
- PN16 (232 psi) acc to DIN 2633

Materials:

- Body ..... cast iron GG25
- Lining ..... Ethylene-propylene rubber
- Disc ..... stainless steel 1.4408 / CF8M
- Stem ..... stainless steel 1.4104 / 430F

### Key to Technical specification

Kv is the flow through the fully open valve in m<sup>3</sup>/h at a pressure drop of 100 kPa across the valve.

ΔPm is the maximum pressure drop across the fully open valve.

Size DN	In.	Kv m3/h	Cv	Part number	Pressure Equipment Directive PED 97/23/EC	CE-marked
25	1	36	42	<b>721-6010-000</b>	Cat. 0	No
32	1½	40	47	<b>721-6014-000</b>	Cat. 0	No
40	1¾	50	59	<b>721-6018-000</b>	Cat. 0	No
50	2	85	100	<b>721-6022-000</b>	Cat. 0	No
65	2½	215	252	<b>721-6026-000</b>	Cat. I	CE
80	3	420	491	<b>721-6030-000</b>	Cat. I	CE
100	4	800	936	<b>721-6034-000</b>	Cat. I	CE
125	5	1010	1182	<b>721-6038-000</b>	Cat. I	CE
150	6	2100	2457	<b>721-6042-000</b>	Cat. I	CE
200	8	4000	4680	<b>721-6046-000</b>	Cat. I	CE

## SELECTION OF ACTUATORS AND ASSEMBLY KIT

Part number	Actuator Input	Size DN in.		MB15B MB15A			MB30B MB30A				
				inc/dec		0 - 10 V		inc/dec		0 - 10 V	
				$\Delta P_c$			$\Delta P_c$				
			Kit 1)	kP	psi	Kit 1)	kP	psi			
<b>721-6010-000</b>	TRV-S 25	25	1	<b>A</b>	1000	145	<b>C</b>	1000	145		
<b>721-6014-000</b>	TRV-S 32	32	1½	<b>A</b>	1000	145	<b>C</b>	1000	145		
<b>721-6018-000</b>	TRV-S 40	40	1¾	<b>A</b>	1000	145	<b>C</b>	1600	232		
<b>721-6022-000</b>	TRV-S 50	50	2	<b>A</b>	1000	145	<b>C</b>	1600	232		
<b>721-6026-000</b>	TRV-S 65	65	2½	<b>A</b>	700	102	<b>C</b>	1600	232		
<b>721-6030-000</b>	TRV-S 80	80	3	<b>B</b>	400	58	<b>D</b>	1000	145		
<b>721-6034-000</b>	TRV-S 100	100	4	<b>B</b>	200	29	<b>D</b>	1000	145		
<b>721-6038-000</b>	TRV-S 125	125	5	-	—	—	<b>D</b>	600	87		
<b>721-6042-000</b>	TRV-S 150	150	6	-	—	—	<b>E</b>	500	72		
<b>721-6046-000</b>	TRV-S 200	200	8	-	—	—	<b>E</b>	300	43		

$\Delta P_c$  = Permissible differential pressure when the valve is closed

<sup>1)</sup> Needed assembly kit

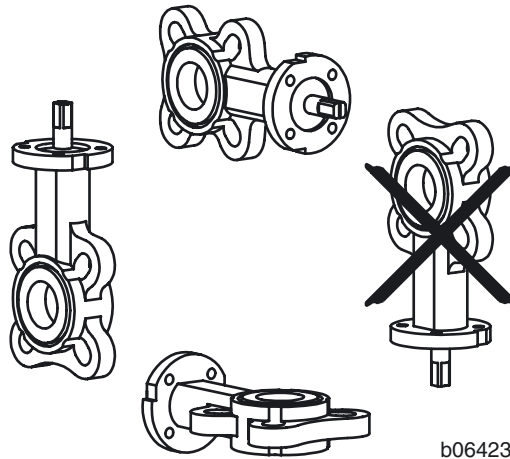
A= <b>911-3010-000</b>	Kit MB15 to TRV-S DN25-65
B= <b>911-3014-000</b>	Kit MB15 to TRV-S DN80-100
C= <b>911-3018-000</b>	Kit MB30 to TRV-S DN25-65
D= <b>911-3022-000</b>	Kit MB30 to TRV-S DN80-125
E= <b>911-3026-000</b>	Kit MB30 to TRV-S DN150-200

## INSTALLATION

If possible, the valve should be installed in the return pipe, in order to avoid exposing the actuator to high temperature.

The valve must not be installed with the actuator mounted below the valve.

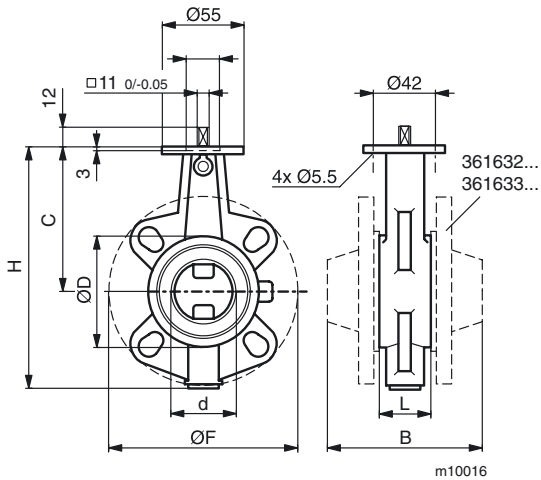
To ensure that suspended solids will not become jammed between the valve disc and body, a filter should be installed upstream of the valve, and the pipe system should be flushed before the valve is installed.



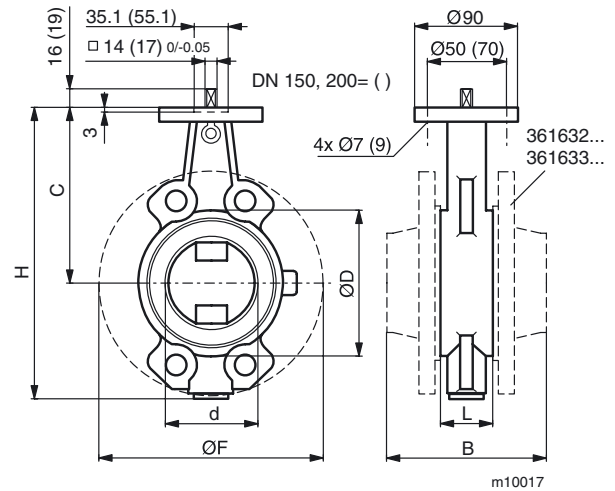
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# DIMENSIONS AND WEIGHT (DIMENSIONS IN MM)

TRV-S DN25 to DN65 (1" to 2½")



TRV-S DN80 to DN200 (3" to 8")

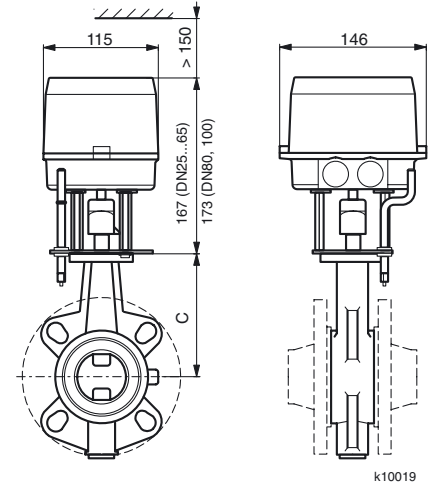
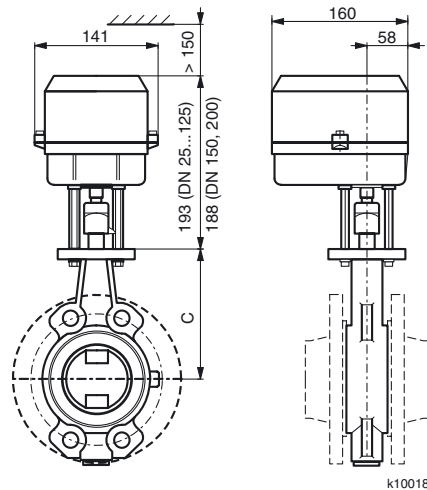


Size DN	d mm	C mm	H mm	L mm	ØD mm	B		ØF	
						PN6 (87psi)	PN10/PN16 (145/232 psi)	PN6 (87psi)	PN10/PN16 (145/232 psi)
25	31.9	104	149	33	64	103	109	100	115
32	31.9	104	154.5	33	69	103	113	120	140
40	38.7	113	178	33	82	109	117	130	150
50	48.3	126	209.5	43	95	119	133	140	165
65	63.2	134.5	226.5	46	115	122	136	160	185
80	78.6	157	260	46	130	130	146	190	200
100	98.4	167.5	261.5	52	150	142	156	210	220
125	123	180	306.5	56	180	152	166	240	250
150	147.6	203	352.5	56	206	152	166	265	285
200	197.8	228.5	403.5	60	250	170	182	320	340

**MB30**

**MB15**

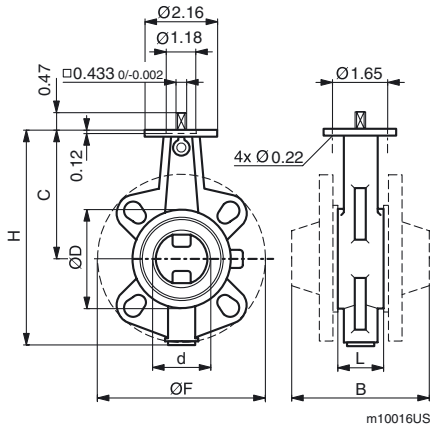
Size DN mm	Weight valve only kg
25	1.0
32	1.2
40	2.8
50	3.1
65	4.1
80	4.3
100	4.9
125	7.2
150	9.5
200	12.0



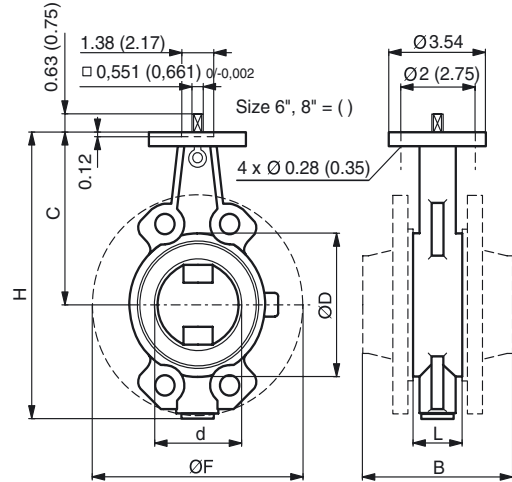
# DIMENSIONS AND WEIGHT (DIMENSIONS IN INCHES)

TRV-S DN25 to DN65 (1" to 2½")

TRV-S DN80 to DN200 (3" to 8")



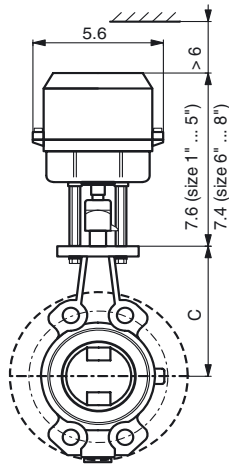
m10016US



m10017US

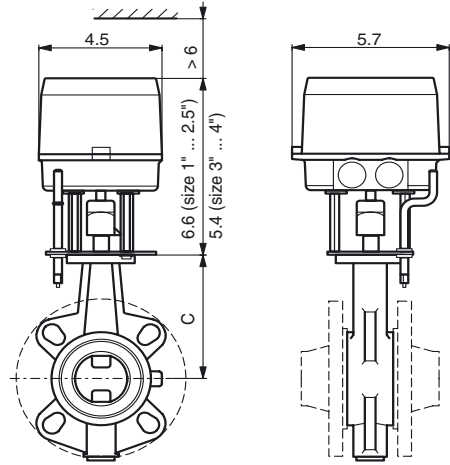
Size DN	d	C	H	L	ØD	B	ØF		
							PN6 (87psi)	PN10/PN16 (145/232 psi)	
in.	in.	in.	in.	in.	in.	PN6 (87psi)	PN10/PN16 (145/232 psi)	PN6 (87psi)	PN10/PN16 (145/232 psi)
1	1.26	4.09	5.87	1.30	2.52	4.06	4.29	3.93	4.53
1½	1.26	4.09	6.08	1.30	2.72	4.06	4.49	4.74	5.51
1¾	1.52	4.45	7.01	1.30	3.23	4.29	4.61	5.12	5.91
2	1.90	4.96	8.25	1.69	3.74	4.69	5.24	5.51	6.50
2½	2.49	5.30	8.92	1.81	4.53	4.80	5.35	6.30	7.28
3	3.09	6.18	10.24	1.81	5.12	5.12	5.75	7.48	7.87
4	3.87	6.59	10.30	2.05	5.91	5.59	6.14	8.27	8.66
5	4.84	7.09	12.07	2.21	7.09	5.98	6.54	9.49	9.84
6	5.81	7.99	13.88	2.21	8.11	5.98	6.54	10.43	11.22
8	7.79	9.00	15.89	2.36	9.84	6.69	7.17	12.60	13.39

**MB30**



k10018US

**MB15**



k10019US

Size DN In.	Weight valve only lb.
1	2.2
1½	2.7
1¾	6.2
2	6.8
2½	9.0
3	9.5
4	10.8
5	15.9
6	20.9
8	26.5

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