

Valve for low and ultra-low flow rates optionally with integrated positioner for shutting off and controlling liquid and gaseous fluids for industrial applications

- Very small Kvs-values
- High differential pressures up to 320 bar
- Trim made of stainless steel or carbide
- Metallic body seal

Technical data

Nominal Size	DN8, DN15	
Connection	Pipe thread acc. ISO 228-1	
	NPT thread acc. ANSI B1.20.1	
Nominal pressure	PN 320	
Fluid temperature	Standard	-60°C up to +210°C
	HT530 version	-60°C up to +530°C
Ambient temperature	with digital positioner type 8049	-10°C up to +75°C
	without positioner	-20°C up to +80°C
Leakage	EN 60534-4	IV
	EN 12266-1	F

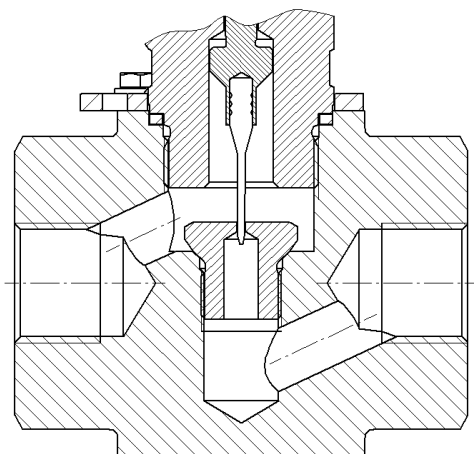


Materials

Body	1.4404	
Head section	1.4404	
Head section seal	1.4404	
Actuating stem	1.4571	
Packing	PTFE and PEEK Compound	
Needle	1.4404	Hardmetal
Seat	1.4404	Hardmetal
Diaphragm housing	Aluminium cathodic dip coated	
Actuator spring	Spring 1: 1.4310	
	Spring 2: Spring steel cathodic dip coated	

Kvs-values

Characteristic: linear			
DN8		DN15	
KVS	rangeability	KVS	rangeability
0,17	30:1	1,3	40:1
0,11	30:1	1,0	40:1
0,068	30:1	0,68	40:1
0,043	30:1	0,43	40:1
0,027	30:1	0,27	30:1
0,017	30:1	0,17	30:1
0,011	25:1	0,11	30:1
0,0068	25:1	0,068	30:1
0,0043	25:1	0,043	30:1
0,0027	25:1	0,027	30:1
		0,017	30:1
		0,011	25:1
		0,0068	25:1
		0,0043	25:1
		0,0027	25:1



Operating limits

Material trim		Temperature	max. differential pressure [bar]	
Needle	Seat		Liquid	Gas
1.4404	1.4404	T ≤ 100°C	100	320
		T > 100°C	40	160
Hardmetal	Hardmetal	-	200	320

Admissible differential pressures (spring closes)

Size	KVS-Value	differential pressure [bar] for spring pressure range of the actuator							
		spring 1						spring 2	
		0,2 - 1,0 bar	0,3 - 1,1 bar	0,4 - 1,2 bar	0,6 - 1,4 bar	0,8 - 1,6 bar	1,0 - 1,8 bar	1,4 - 2,4 bar	1,8 - 2,8 bar
DN08*	0,043 - 0,17	63	161	260	320	320	-	-	-
	0,0027 - 0,027	292	320	320	-	-	-	-	-
DN15	1,0 - 1,3	2,1	19	33	63	92	121	179	238
	0,27 - 0,68	17,5	53	88	160	231	302	320	320
	0,043 - 0,17	63	161	260	320	320	-	-	-
	0,0027 - 0,027	292	320	320	-	-	-	-	-
required supply pressure		1,1 - 6 bar	1,2 - 6 bar	1,3 - 6 bar	1,5 - 6 bar	1,7 - 6 bar	1,9 - 6 bar	2,7 - 6 bar	3,1 - 6 bar

*For HT version pressure values of DN15

For values of P₂ > 0 the admissible differential pressures may differ considerably. Therefore the sizing should generally be verified by the manufacturer.

Admissible differential pressures (spring opens)

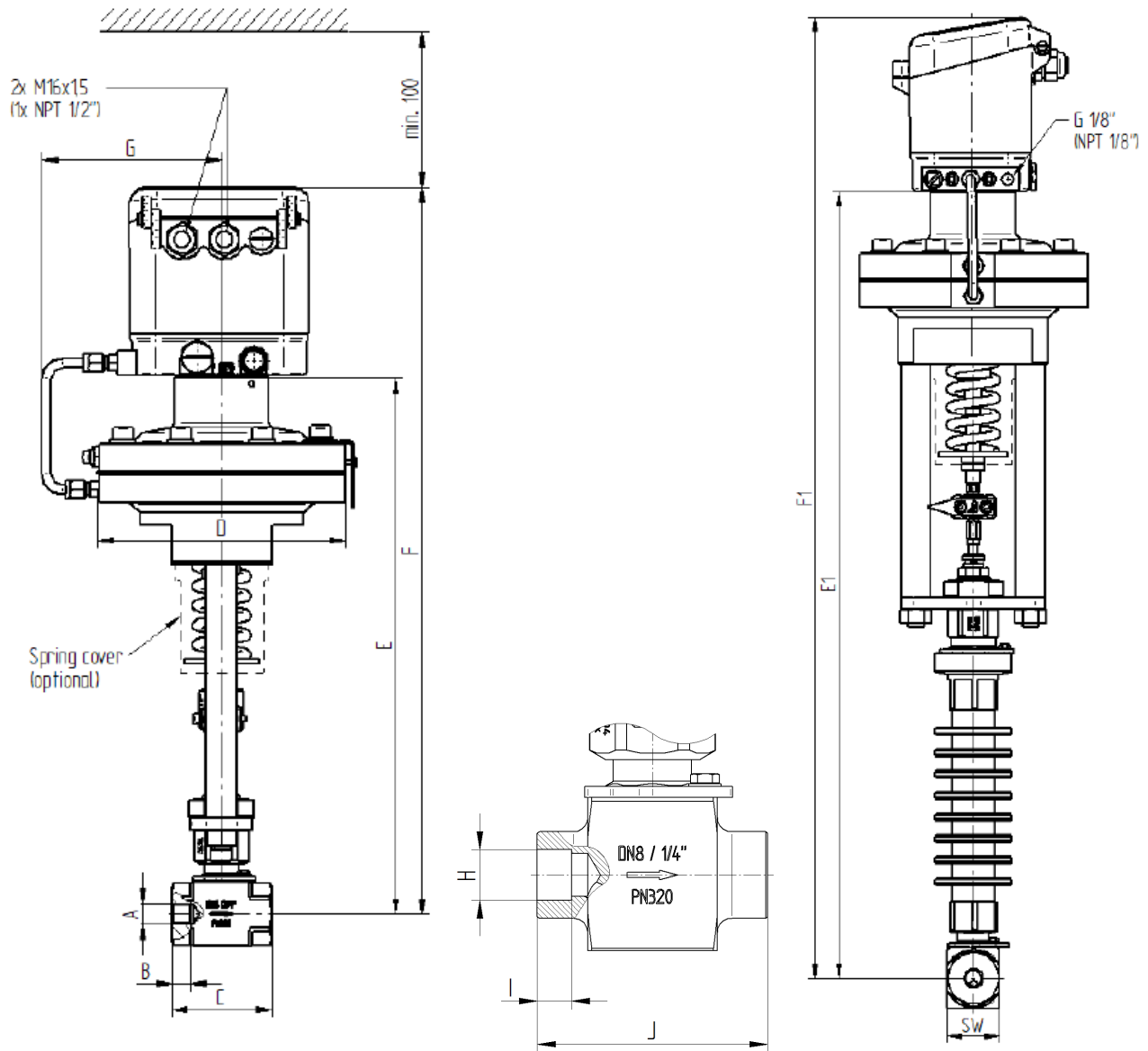
Size	KVS-Value	max. operating pressure [bar]	Supply pressure [bar] at actual differential pressure [bar]							supply pressure max [bar]
			Δp: <25	Δp: 25 - 50	Δp: 50 - 75	Δp: 75 - 100	Δp: 100 - 150	Δp: 150 - 200	Δp: 200 - 320	
DN08	0,043 - 0,17	320	1,2	1,2	1,2	1,3	1,3	1,4	1,5	1,5
	0,0027 - 0,027	320	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,3
DN15	1,0 - 1,3	116	1,4	1,6	1,8	1,9	-	-	-	2,1
	0,27 - 0,68	197	1,3	1,4	1,4	1,5	1,6	-	-	1,8
	0,043 - 0,17	320	1,2	1,2	1,2	1,3	1,3	1,4	1,5	1,6
	0,0027 - 0,027	320	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,4

For values of P₂ > 0 the admissible differential pressures may differ considerably. Therefore the sizing should generally be verified by the manufacturer. The specified supply pressures may only be exceeded by 0,1 bar to prevent damages to the trim.

Pressure-temperature-rating

T [°C]	PS [bar]
-60 up to +120	320
150	301
200	274
210	270
250	254
300	238
400	226
450	216
500	206
530	200

Dimensions and weights



Size	Function	Connection NPT-thread		Connection G-thread		C	D	E	E1	F	F1	G	weight [kg]	
		A	B	A	B								standard	HT530
DN08	NC	G 1/4"	12	G 1/4"	10	64	159	345	550	468	670	120	7	8,6
DN08	NO	G 1/4"	12	G 1/4"	10	64	159	377	582	500	705	120	7,4	9
DN15	NC	G 1/2"	15	G 1/2"	14	79	159	352	557	474	679	120	7,6	9,2
DN15	NO	G 1/2"	15	G 1/2"	14	79	159	384	589	506	711	120	8	9,6

Dimensions in mm

Size	Socket weld connection		
	H	I	J
DN08	14	9,53	64
DN15	21,7	12,7	79

Dimensions in mm