

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

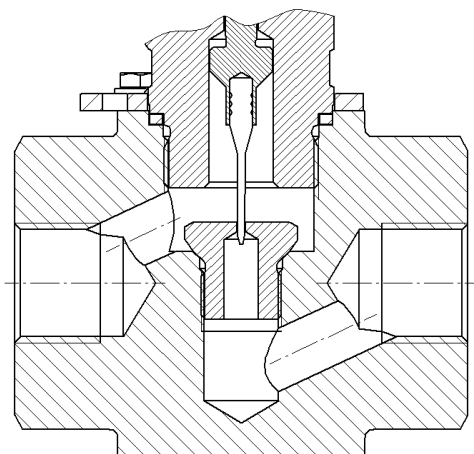


Materials

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

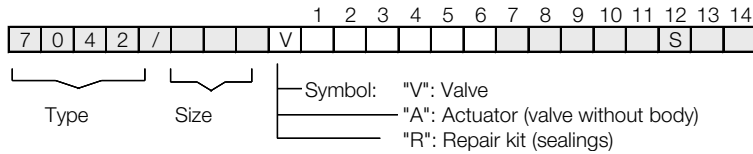
For values of P₂ > 0 the admissible differential pressures may differ considerably. Therefore the sizing should generally be verified by the manufacturer.

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

Ordering number system

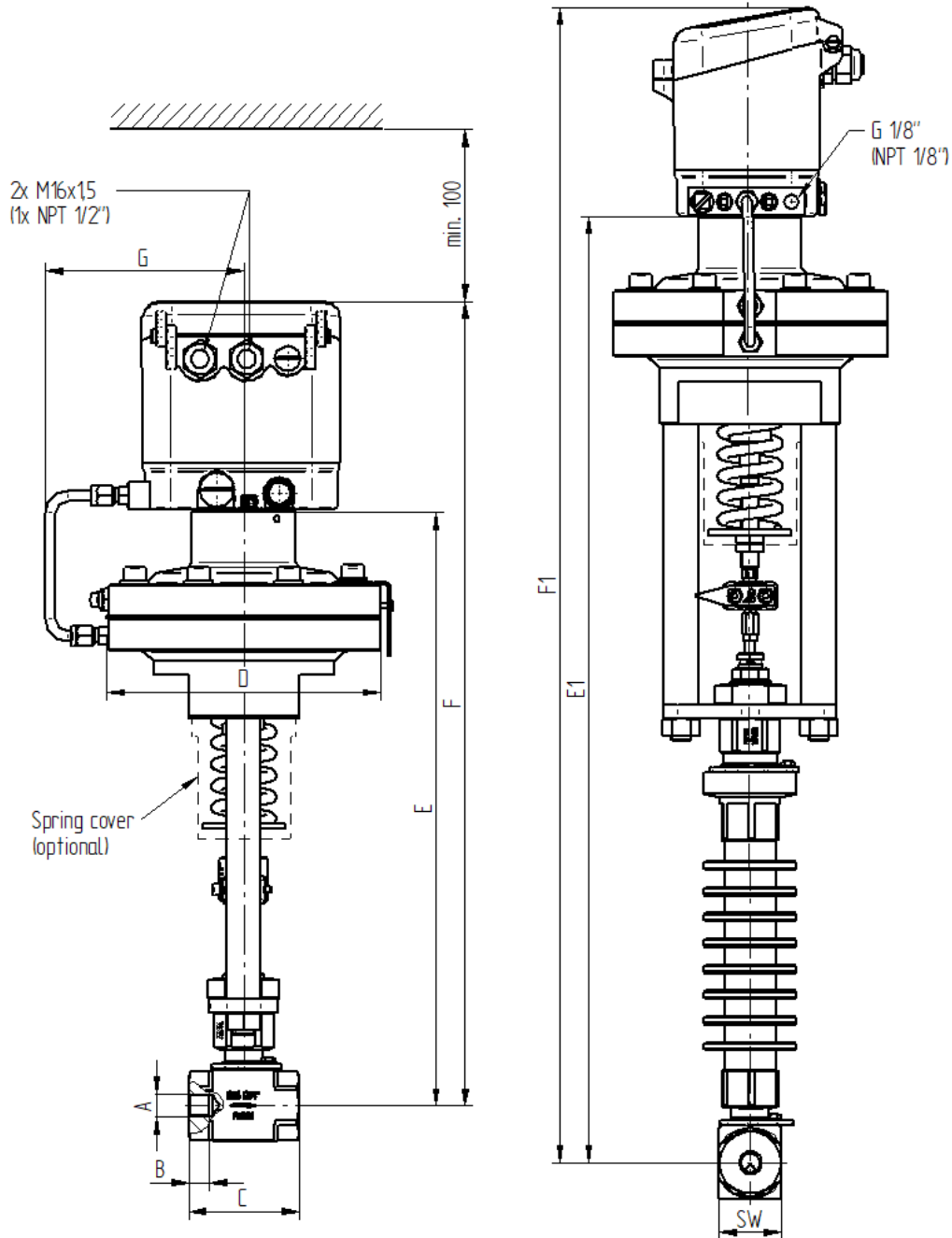


1 - 6 : Please quote all 6 sections.
 7 - 14: Quote only if required.

1.	Design	2.	Connections	3.	Body material	4.	Seating seal	5.	Positioner
Y	low flow valve	0	BSP thread	2	stainless steel 1.4404 (316L)	1	stainless steel / stainless steel	C	8049-4
		1	NPT thread			2	Hardmetal / Hardmetal	R	8049-2
								W	8049 ExPro
								K	8049 ExPro-FM
6.	Actuator, function	7.	Spring pressure range	8.	Flow characteristic	9.	Kvs/Cvs-Values	10.	Options
1	diaphragm actuator D70 Spring closes (closing against the flow)	1	0,2 - 1 bar	-	linear	A	Kvs=1,3 [Cvs=1,5]	-	Standard
		2	0,4 - 1,3 bar			B	Kvs=1,0 [Cvs=1,2]	1	filter pressure regulator
		3	0,6 - 1,4 bar			C	Kvs=0,68 [Cvs=0,79]		
A	diaphragm actuator D70 Spring opens (closing against the flow)	4	0,8 - 1,6 bar			D	Kvs=0,43 [Cvs=0,5]		
		5	1,0 - 1,8 bar			E	Kvs=0,27 [Cvs=0,31]		
		6	1,4 - 2,4 bar			F	Kvs=0,17 [Cvs=0,2]		
		7	1,8 - 2,8 bar			G	Kvs=0,11 [Cvs=0,13]		
						H	Kvs=0,068 [Cvs=0,079]		
						K	Kvs=0,043 [Cvs=0,05]		
						L	Kvs=0,027 [Cvs=0,031]		
						M	Kvs=0,017 [Cvs=0,02]		
						N	Kvs=0,011 [Cvs=0,013]		
						P	Kvs=0,0068 [Cvs=0,0079]		
						R	Kvs=0,0043 [Cvs=0,005]		
						T	Kvs=0,0027 [Cvs=0,0031]		
11.	Accessories	12.	Special versions	13.	Sealings	14.	Spindle seal	15.	Positioner version
-	ohne	D	AS-I control head	-	Standard	-	Standard	-	without
1	1 limit switch (micro switch)	F	AS-I control head Ex (II 3D Ex tc IIIC T135 °C Dc, II 3G Ex nA IIC T4 G					C	8049 positioner with base plate in stainless steel
2	2 limit switches (micro switch)	M	el. position indicator with cable bushing; ingress protection of the body IP65					E	8049 positioner in stainless steel
6	pilot valve 230V~ at supply air connection	N	el. position indicator with plug connection; ingress protection of the body IP65						
7	pilot valve 24V= at supply air connection	S	See following positions						
M	gauge block for positioner								
16.	Positioner settings	17.	Special treatment	18.	Part variants	19.	Signal equipment	20.	Body, head section
-	Standard (4 - 20 mA)	-	ohne	-	ohne	-	ohne	-	Standard
1	Split range 4 - 12 mA	1	free of silicone	0	Actuator with spring housing	P	feedback module RM5 for positioner type 8049 with 2 limit switches	H	High temperature version 530°C
2	Split Range 12 - 20 mA	B	for low temperature applications -40°C	3	fittings and pilot tube stainless steel 1.4571	Y	Feedback module RM4 for positioner type 8049 with 2 integrated limit switches acc. NAMUR (EN60947-5-6)		
C	2 - 10 V								

Ordering example: 7042/008VY121C11-F
 Low flow valve, DN08 (1/4"), NPT thread, stainless steel-body, stainless steel/stainless steel, digitale positioner 8049 4-wire, diaphragm actuator 70 cm², spring closes (closing against the flow), spring pressure range 0,2-1 bar, characteristics linear, Cvs-value 0,2 (Kvs=0,17)

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

Text and pictures are not binding. We reserve the right, to alter the equipment.