

DN8, DN15; PN320

Valve for small and very small flow rates with electric actuator for shutting off and controlling liquids and gases for industrial applications

- Small and very small Kvs values
- High differential pressures up to 320 bar
- Metallic sealing seat assembly made of stainless steel or carbide
- Metallic body seal
- Self-adaptation
- Actuators for open/close or control operation
- Available with safety position



Technical data valve

Nominal Size	DN8, DN15	
Connection	Pipe thread acc. ISO 228-1 NPT thread acc. ANSI B1.20.1 Socket Weld	
Nominal pressure	PN 320	
Fluid temperature	Standard version	-20°C up to +210°C
	Low-temperature version 1	-40°C up to +160°C
	Low-temperature version 2	-100°C up to +210°C
Leakage	EN 60534-4	IV
	EN 12266-1	F

Technical data actuator

Function	Control				On/Off	
	CA24C	CA260C	CA24C-R	CA260C-R	CA24	CA260
Motor type	24 V AC/DC	100-240 V AC	24 V AC/DC	100-240 V AC	24 V AC/DC	100-240 V AC
Mains connection	24 V AC/DC	100-240 V AC	24 V AC/DC	100-240 V AC	24 V AC/DC	100-240 V AC
Set point range	(0)2-10 V / (0)4-20 mA				3-point**	
Mains frequency	50/60 Hz				50/60 Hz	
Feedback	(0)2-10 V / (0)4-20 mA				optional	
Dead band	±0.6 % of the entire stroke				-	
Repeatability	±0.3 % of the entire stroke				-	
Limit switch	2				optional	
Potentiometer feedback	-				optional	
Max. switching capacity	24 V AC/DC 200 mA				250 V AC/DC 1 A	
Actuating speed	1.5 / 2 / 3 s/mm (Standard: 2 s/mm)				2 or 3 s/mm (Standard: 3 s/mm)	
Safety functions	Monitoring of tensile force, set point, temperature of the electronics, etc.				Tensile force monitoring	
Diagnostic functions	Storage of motor and total operating time, temperature and directional classes, etc.				-	
Fail Safe position	-	-	freely adjustable		-	
Load	500 Ω for current set point / 95 kΩ for voltage set point				-	
Max. power consumption	13 W	12 W	13 W	12 W	13 W	12 W
Input heating resistor	10 W					
Starting current	6 A	2,5 A	6 A	2,5 A	6 A	2,5 A
Actuating power	800 N					
Protection class (EN 60529)	IP 65***					
Adm. Ambient temperature	-10 °C to +60 °C					
Duty cycle	100 %					

*: for control with volt-signal split range adjustments are possible

** : Minimum on-time 200 ms

*** Dustproof, protection against water jets from any angle

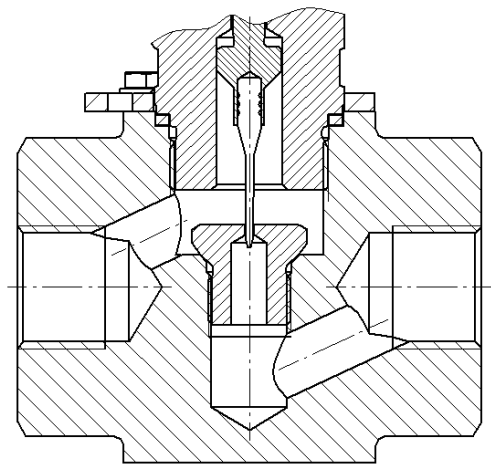
Low flow valve 7242

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
Actuator cover	Painted aluminium	
Actuator console	Anodised aluminium (optionally KTL coated)	

KVS-values

Characteristic: linear			
DN8		DN15	
KVS	rangeability	KVS	rangeability
0,17	30:1	1,3	30:1
0,11	30:1	1,0	30:1
0,068	30:1	0,68	30:1
0,043	30:1	0,43	30:1
0,027	30:1	0,27	30:1
0,017	30:1	0,17	30:1
0,011	25:1	0,11	30:1
0,007	25:1	0,068	30:1
0,004	25:1	0,043	30:1
0,003	25:1	0,027	30:1
		0,017	30:1
		0,011	25:1
		0,007	25:1
		0,004	25:1
		0,003	25:1



Admissible pressures

DN08 - p1 as a function of p2

p1 [bar]	KVS values	Seat relief	p2 [bar]								
			0	20	50	100	150	200	250	300	320
p1 [bar]	0,043-0,17	275 N	177	169	159	140					
		520 N	320	320	320	320	320	320	320	320	320
	0,0027-0,027	275 N	320	320	320	303					
		175 N	295	206	73						

DN15 - p1 as a function of p2

p1 [bar]	KVS values	Seat relief	p2 [bar]								
			0	20	50	100	150	200	250	300	320
p1 [bar]	1,0 - 1,3	800 N	130	130	130	130					
		520 N	320	319	313	302	292	281	271		
	0,27 - 0,68	800 N	158	154	148	137					
		520 N	320	320	320	218					
	0,043 - 0,17	275 N	177	129	59						
		275 N	320	320	126						
	0,0027 - 0,027	275 N	295	46							
		175 N									

Operating limits

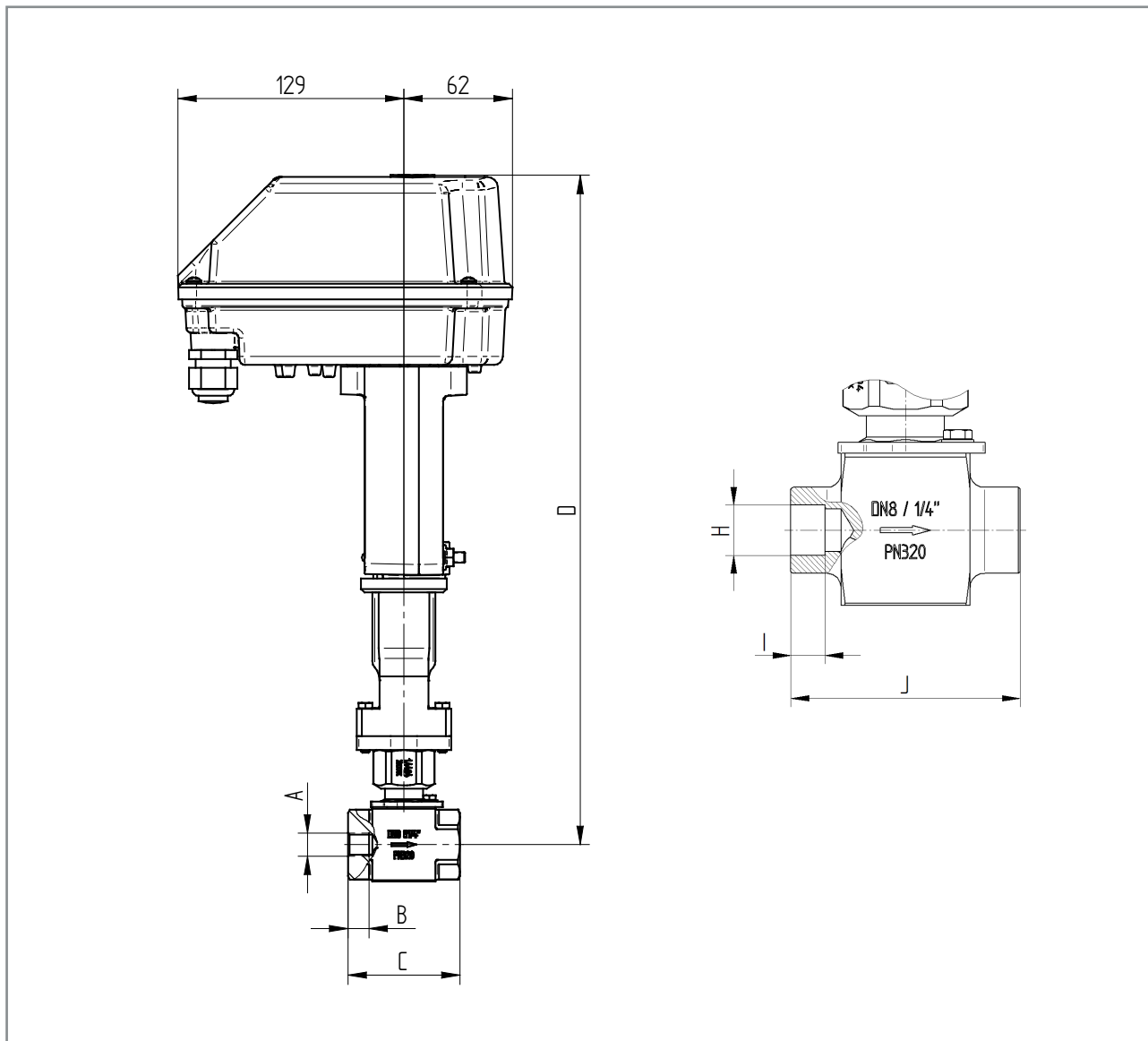
Material trim		Temperature	max. differential pressure [bar]	
Needle	Seat		Liquid	Gas
1.4404	1.4404	T ≤ 100°C	100	320
		T > 100°C	40	160
Hardmetal	Hardmetal	-	200	320

Pressure-temperature rating

Standard version	
T [°C]	PS [bar]
-60 bis +120	320
150	301
200	274
210	270

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Dimensions and weights



Nominal Size	G-thread connection		NPT-thread connection		C	Standard		Stroke
	A	B	A	B		D	Weight [kg]	
DN08	G 1/4"	12	NPT 1/4"	10	64	382	4,1	12
DN15	G 1/2"	15	NPT 1/2"	14	79	389	4,7	12

Dimensions in mm

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

Dimensions in mm