

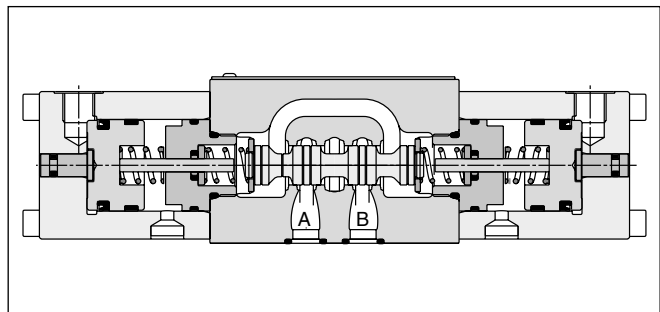
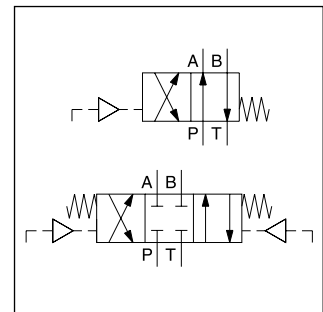
Characteristics

Pneumatically controlled directional control valves of series D1VA are based on the standard D1VW design.

The main spool is operated via an auxiliary spool of larger diameter. Thus enables low operating pressures from 3 to 5 bar.

Pneumatic connection via thread G1/8 in the end caps.

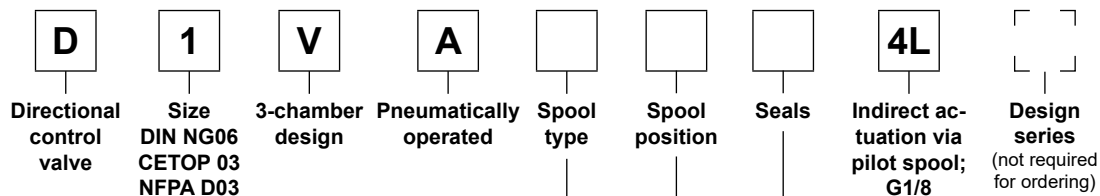
2



Technical data

General		
Design		Directional spool valve
Actuation		Pneumatic
Size		DIN NG06 / CETOP 03 / NFPA D03
Mounting interface		DIN 24340 A06, ISO 4401, NFPA D03, CETOP RP 121-H
Mounting position		unrestricted, preferably horizontal
Ambient temperature	[°C]	-25...+60
MTTF _D value	[years]	150
Weight	[kg]	1.3
Hydraulic		
Max. operating pressure	[bar]	P, A B: 350; T: 105
Fluid		Hydraulic oil according to DIN 51524
Fluid temperature	[°C]	-20 ... +70 (NBR: -25...+70)
Viscosity permitted	[cSt] / [mm ² /s]	2.8...400
Viscosity recommended	[cSt] / [mm ² /s]	30...80
Filtration		ISO 4406 (1999); 18/16/13
Flow max.	[l/min]	60 ¹⁾
Leakage at 350 bar (per flow path)	[ml/min]	up to 60 ¹⁾
Operating pressure w/o tank pressure	[bar]	min. 3
with max tank	[bar]	min. 5
Static / Dynamic		
Step response		The response times depend on the pilot oil pressure and on the speed of the increase / decrease of the pilot pressure.
Recommended values are (act./deact.) depending on pilot pressure and pipe length	[ms]	13/28

¹⁾ Depending on spool.



2

3 position spools	
Code	Spool type
	a 0 b
001	
002	
004	
006	
008 ¹⁾	
009 ¹⁾	

2 position spools	
Code	Spool type
	a b
020	
026	
030	

Code	Seals
N	NBR
V	FPM

3 position spools		
Code	Spool position	
C		3 positions. Spring offset in position "0". Operated in position "a" or "b".
	Standard	Spool type 008, 009
E		2 positions. Spring offset in position "0".
	Operated in position "a".	Operated in position "b".
F		2 positions. Operated in position "0".
	Spring offset in position "b".	Spring offset in position "a".
K		2 positions. Spring offset in position "0".
	Operated in position "b".	Operated in position "a".
M		2 positions. Operated in position "0".
	Spring offset in position "a".	Spring offset in position "b".

2 position spools		
Code	Spool position	
B		Spring offset in position "b". Operated in position "a".
D		Detent, operated in position "a" or "b". No centre or offset position.
H		Spring offset in position "a". Operated in position "b".

Bold letters =
Short-term availability

¹⁾ Consider specific spool position.

Further spool types and styles on request.

Flow Curves Diagrams / Shift Limits

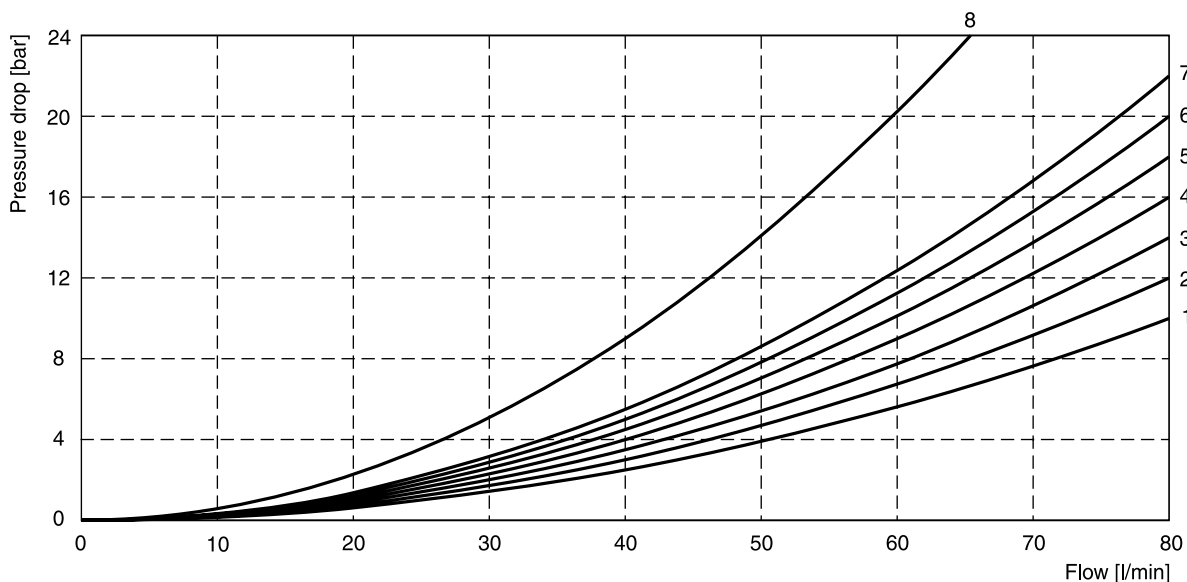
The flow curve diagram shows the flow versus pressure drop curves for all spool types. The relevant curve number

for each spool type, operating position and flow direction is given in the table below.

2

Spool	Position „b“		Position „a“		Position „0“				
	P->A	B->T	P->B	A->T	P->A	P->B	A->T	B->T	P->T
001	2	2	2	2	-	-	-	-	-
002	1	4	1	4	1	1	5	5	2
004	2	3	2	3	-	-	7	7	-
006	1	4	1	4	7	7	-	-	-
020	4	4	2	3	-	-	-	-	-
026	4	-	4	-	-	-	-	-	-
030	2	3	1	2	-	-	-	-	-
	P->B	A->T	P->A	B->T	P->A	P->B	A->T	B->T	P->T
008	4	5	4	5	-	-	-	-	8
009	5	5	6	7	-	-	-	-	7

Flow curves

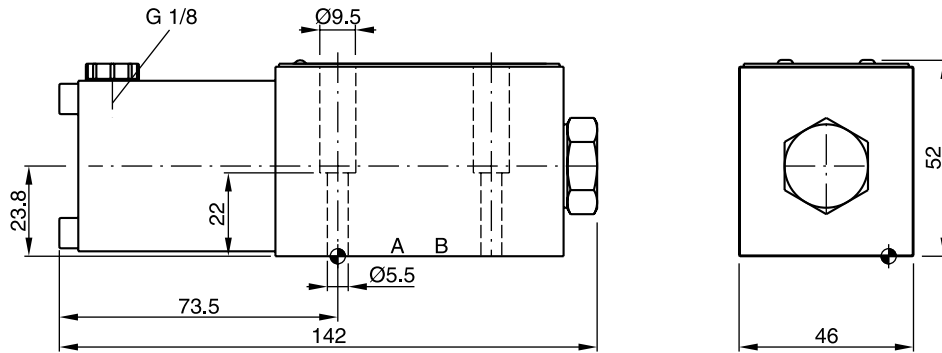


All characteristic curves measured with HLP46 at 50 °C.

Shift limits

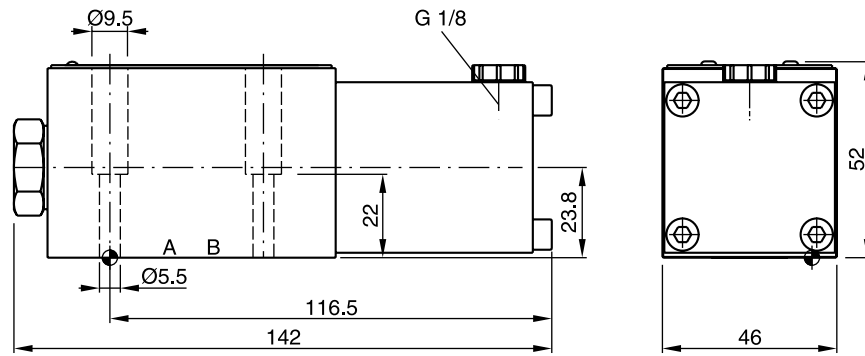
Spool	Shift limit [l/min]
001	60
002	
004	
006	
020	
030	
008	40
009	
026	20

B, E, F -style

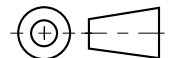
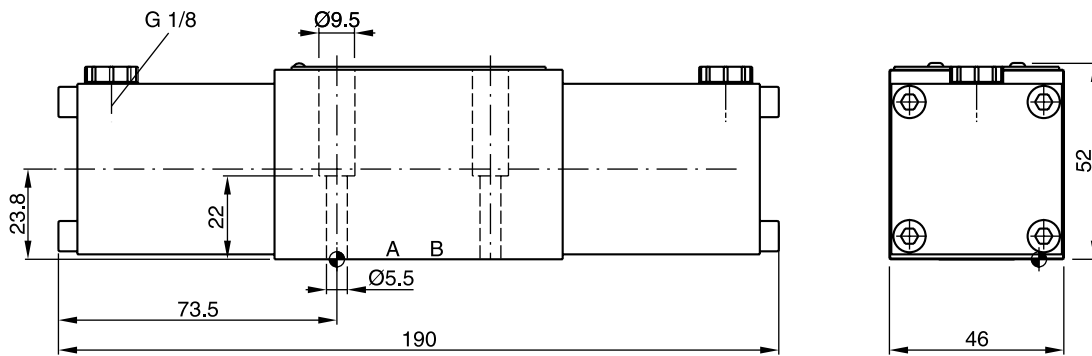






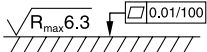
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H, K, M -style



C, D -style



Surface finish	 Kit	 Kit	 Kit	 Kit
	BK375	4x M5x30 ISO 4762-12.9	7.6 Nm $\pm 15\%$	NBR: SK-D1VA-N-91 FPM: SK-D1VA-V-91