

Working conditions

Nominal flow rating		50 l/min	13.2 US gpm
Operating pressure (max.)	<i>parallel and tandem</i>	315 bar	4600 psi
Back pressure (max.)		35 bar	508 psi
Internal leakage (min.) A(B) to T	$\Delta p = 100 \text{ bar (1450 psi)}$ fluid and valve at 40 °C (104 °F)	7 cm ³ /min	0.42 in ³ /min
Hydraulic fluid		Mineral based oil	
Fluid temperature	<i>with NBR seals</i>	from -20 °C to 80 °C	from -4 °F to 176 °F
	<i>with FPM (Viton) seals</i>	from -20 °C to 100 °C	from -4 °F to 212 °F
Viscosity	<i>operating range</i>	from 15 to 75 mm ² /s	from 15 to 75 cSt
	<i>min.</i>	12 mm ² /s	12 cSt
	<i>max.</i>	400 mm ² /s	400 cSt
Permissible degree of fluid contamination		-/19/16 - ISO 4406	NAS 1683 - class 10
Ambient temperature	<i>with mechanical devices</i>	from -40 °C to 60 °C	from -40 °F to 140 °F
	<i>with pneumatic and hydraulic devices</i>	from -30 °C to 60 °C	from -22 °F to 140 °F
	<i>with electric devices</i>	from -20 °C to 50 °C	from -4 °F to 140 °F

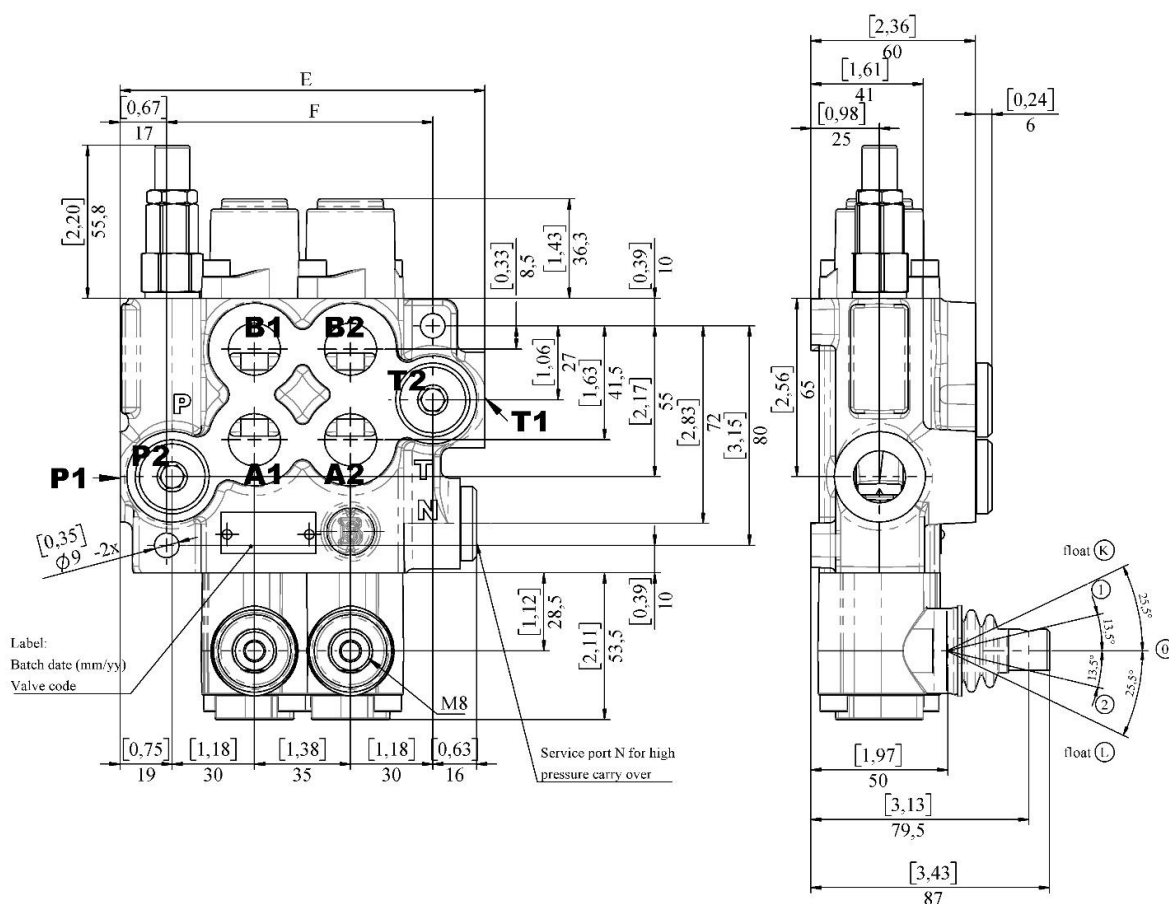
Standard threads

Reference standard				
	BSP	UN-UNF	Metric	NPTF
Thread	ISO 228/1	ISO 263	ISO 262	Ansi B1.20.3
according to	BS 2779	ANSI B1.1 unified		
Cavity	ISO 1179	11926	9974-1	
dimension	SAE	J1926	J2244	J476a
according to	DIN 3852-2 (Shape X or Y)		3852-1 (Shape X or Y)	

Port threadings and codes						
Codes:	G	G38	G12	S	S8	M
Main ports	BSP	BSP	BSP	UN-UNF	UN-UNF	Metric
Inlet P and outlet T	G1/2	G3/8	G1/2	7/8-14 (SAE10)	3/4-16 (SAE8)	M22x1.5
Working ports A and B	G3/8	G3/8	G1/2	3/4-16 (SAE8)	3/4-16 (SAE8)	M18x1.5
Control pilot ports						
Pneumatic	1/8-27 NPTF	1/8-27 NPTF	1/8-27 NPTF	1/8-27 NPTF	1/8-27 NPTF	1/8-27 NPTF
Hydraulic	G1/4	G1/4	G1/4	9/16-18 (SAE6)	9/16-18 (SAE6)	G1/4

Dimensions

This drawing refers to a directional control valve with 2 working sections with common check valve (refer to next page for the body with individual check valves)



Float position L is shown just as a convention for direction, Z50 can have float- spool in **only** in right hand version – refer to page 20

TYPE	E		F		Weight	
	mm	in	mm	in	kg	lb
Z50	88	3.46	60	2.36	2.50	5.5
02Z50	133	5.24	97	3.82	4.10	9.0
03Z50	168	6.61	132	5.20	5.5	12.1
04Z50	203	7.99	167	6.6	6.90	15.2
05Z50	238	9.4	202	8.0	8.30	18.3
06Z50	273	10.7	237	9.3	9.70	21.4
07Z50	308	12.1	272	10.7	11.10	24.5
08Z50	343	13.5	307	12.1	12.50	27.6