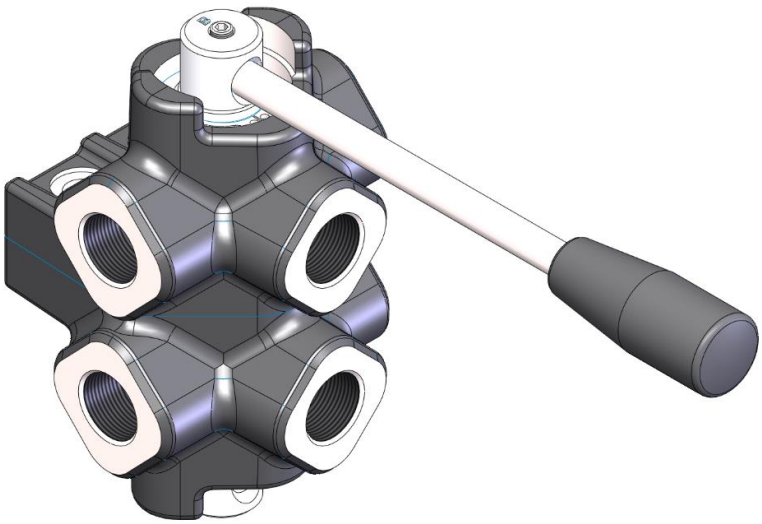
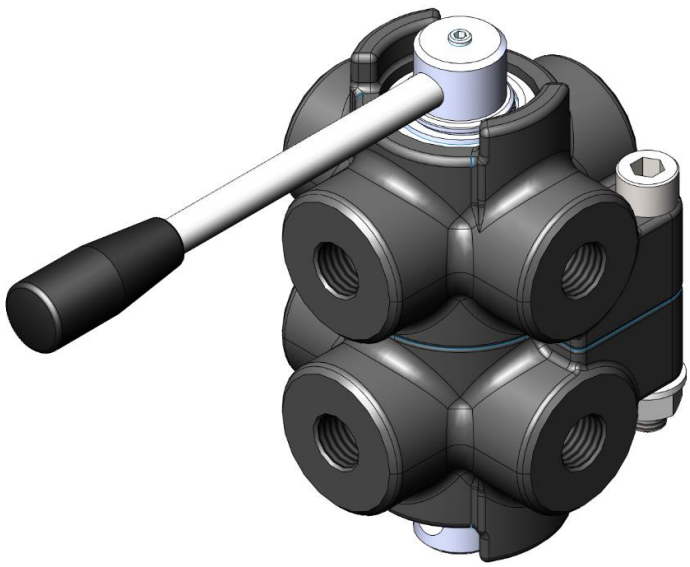
Rotary control diverter valves





Rotary control diverter valves:

- Simple compact and heavy duty designed with cast iron body and hard plated steel spool.
- Different spool types (30/31/40/42)
- Stackable to form 6-way/8way.
- Different flows from 60 to 140 l/min

Additional information
This catalogue shows the product in the most standard configuration. For special requests please contact sales.

WARNING!
All specifications of this catalogue refer to the standard product at this date. Badestnost, oriented in continuous improvement, reserves the right to discontinue, modify or revise specifications, without notice.

BADESTNOST IS NOT RESPONSIBLE FOR ANY DAMAGE CAUSED BY AN INCORRECT USE OF THE PRODUCT

First edition 02-2021

Working conditions

Valve name		357B/ 459B	303-7/ 662-7	358B/ 460B	303-8/ 662-8	359B/ 461B	303-9/ 662-9
N. of availabe ways		3/6	4/8	3/6	4/8	3/6	4/8
Max. flow rating		60 l/min		90 l/min		140 l/min	
		18.5 US gpm		*23.7 US gpm*		*37 US gpm*	
Max. pressure		315 bar		315 bar		315 bar	
		4600 psi		*4600 psi*		*4600 psi*	
Internal leakaga A(B) to T	*Δp = 100 bar (1450 psi) fluid and valve at 40 °C (104 °F)*	4 cm^3/min		4 cm^3/min		4 cm^3/min	
		0.24 in^3/min		*0.24 in^3/min*		*0.24 in^3/min*	
Fluid		Mineral based oil					
Fluid temperature	*with NBR seals*	from -20 °C to 80 °C		*from -4 °F to 176 °F*			
	with FPM (Viton) seals	from -20 °C to 100 °C		*from -4 °F to 212 °F*			
Viscosity	*operating range*	from 15 to 75 mm^2/s		*from 15 to 75 cSt*			
	min.	12 mm^2/s		*12 cSt*			
	max.	400 mm^2/s		*400 cSt*			
Max. level of contamination		-/19/16 - ISO 4406		*NAS 1683 - class 10*			
Ambient temperature		from -40 °C to 60 °C		*from -40 °F to 140 °F*			
Note - for different working conditions contact sales dept.							

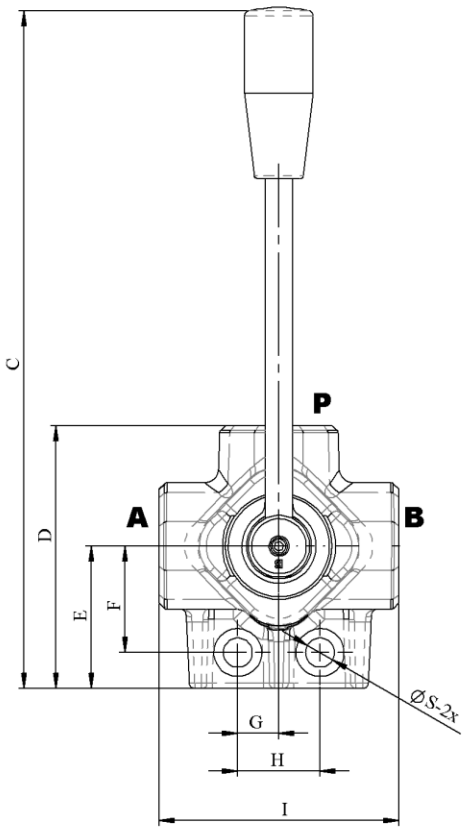
Refernce standard					
		BSP	UN-UNF	Metric	NPTF
Thread according to		ISO 228/1	ISO 263	ISO 262	Ansi B1.20.3
		BS 2779	ANSI B1.1 unified		
Cavity dimension according to	ISO	1179	11926	9974-1	
	SAE		J1926	J2244	J476a
	DIN 3852-2 (Shape X or Y)			3852-1 (Shape X or Y)	

Port threads		
ALL Ports	BSP "G"	UN-UNF "S"
357B (303-7)	G3/8	3/4-16 (SAE8)
358B (303-8)	G1/2	7/8-14 (SAE10)
359B (303-9)	G3/4	1 1/16-12 (SAE12)

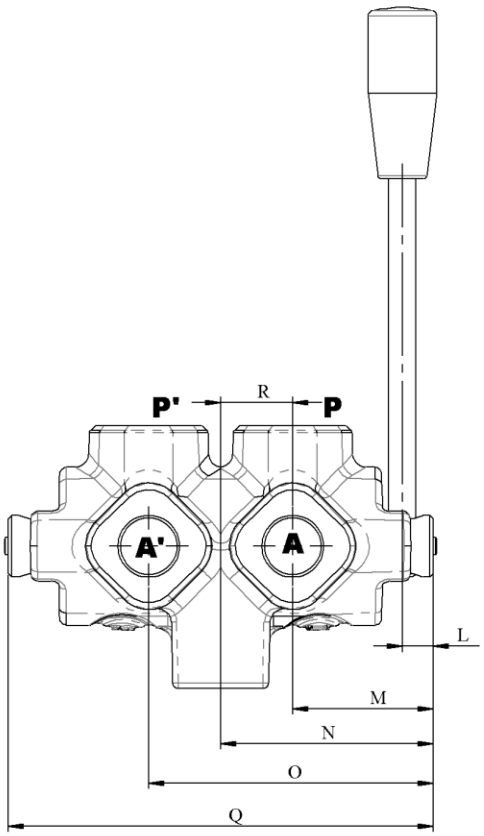
Dimensional data:

6-ways diverter valve is obtained by coupling two 3-ways bodies with assembling kit

(No. of ways)
357 / 3 / 31 - G
Name-size Spool type Thread



(No. of ways)
459 / 6 / 31 - G
Name-size Spool type Thread



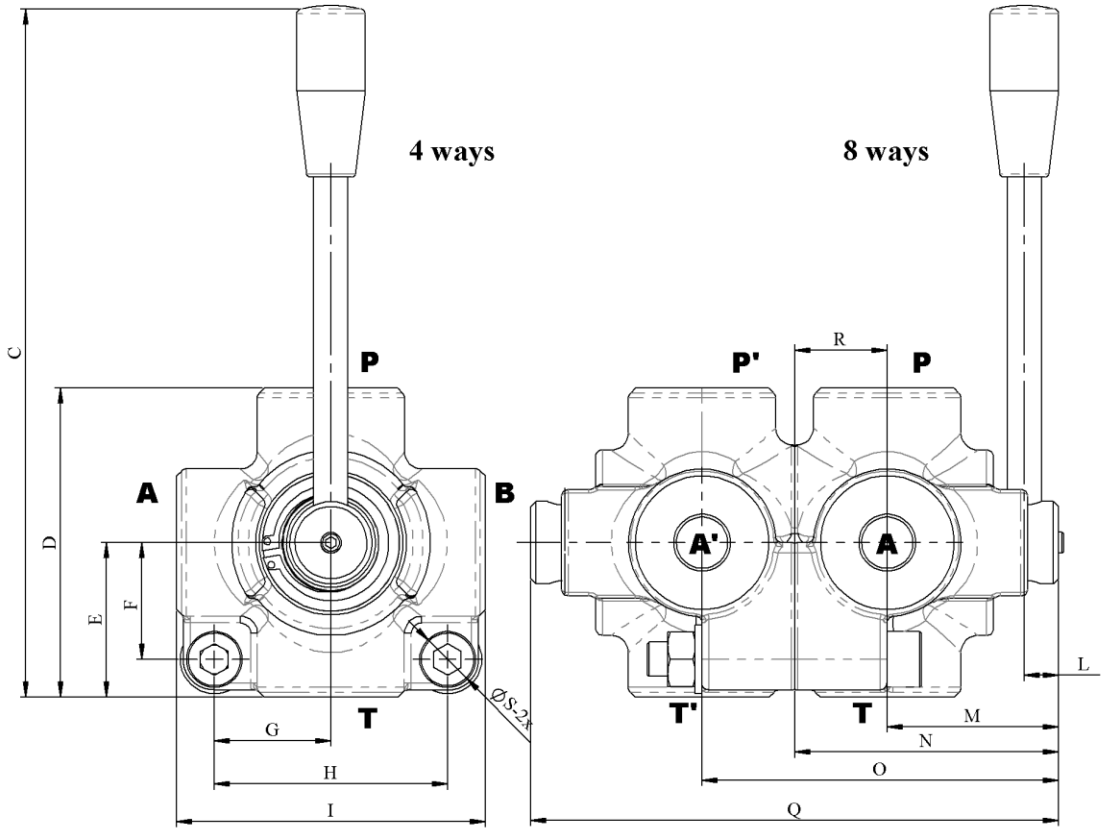
Type	C		D		E		F		G		H		I		L		M		N		O		Q		R		S	
	mm*	*in**	mm*	*in**	mm*	*in**	mm*	*in**	mm*	*in**	mm*	*in**	mm*	*in**	mm*	*in**	mm*	*in**	mm*	*in**	mm*	*in**	mm*	*in**	mm*	*in**	mm*	*in**
357B 3 way	197.5	*7.8*	76.5	*3.0*	41.5	*1.6*	31	*1.2*	12	*0.5*	24	*0.9*	70	*2.8*	9	*0.4*	41	*1.6*	62	*2.4*					21	*0.8*	8.5	*0.3*
459B 6 way	197.5	*7.8*	76.5	*3.0*	41.5	*1.6*	31	*1.2*	12	*0.5*	24	*0.9*	70	*2.8*	9	*0.4*	41	*1.6*	62	*2.4*	69	*2.7*	124	*4.9*	21	*0.8*	8.5	*0.3*
358B 3 way	205.5	*8.1*	95.0	*3.7*	52	*2*	40	*1.6*	16	*0.6*	32	*1.3*	86	*3.4*	9	*0.4*	44	*1.7*	69	*2.7*					25	*1.0*	10.5	*0.4*
460B 6 way	205.5	*8.1*	95.0	*3.7*	52	*2*	40	*1.6*	16	*0.6*	32	*1.3*	86	*3.4*	9	*0.4*	44	*1.7*	69	*2.7*	87	*3.4*	138	*5.4*	25	*1.0*	10.5	*0.4*
359B 3 way	213	*8.4*	105	*4.1*	60	*2.4*	45	*1.8*	16	*0.6*	32.0	*1.3*	90	*3.5*	14.5	*0.6*	53	*2.1*	83	*3.3*					30	*1.2*	10.5	*0.4*
461B 6 way	213.0	*8.4*	105	*4.1*	60	*2.4*	45	*1.8*	16	*0.6*	32	*1.3*	90	*3.5*	15	*0.6*	53	*2.1*	83	*3.3*	102.5	*4.0*	166	*6.5*	30	*1.2*	10.5	*0.4*

Dimensional data:

8-ways diverter valve is obtained by coupling two 4-ways bodies with assembling kit

(No. of ways)
303-7/ 4 / 42 - G
Name-size Spool type Thread

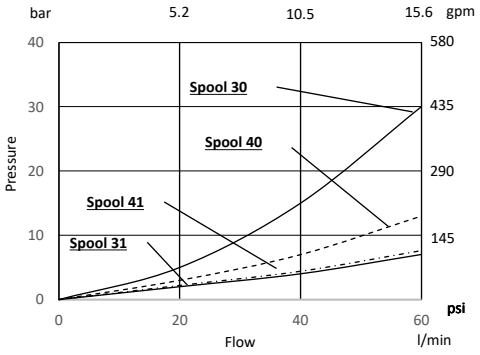
(No. of ways)
662-7/ 8 / 42 - G
Name-size Spool type Thread



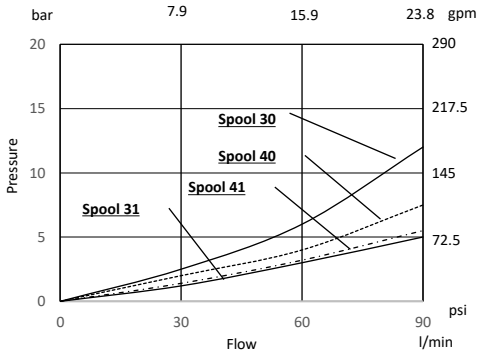
Type	C	D	E	F	G	H	I	L	M	N	O	Q	R	S
	mm* *in**													
303-7 4 way	116 *4.6*	90 *3.5*	45 *1.8*	34 *1.3*	34 *1.3*	68 *2.7*	90 *3.5*	9 *0.4*	49 *1.9*	77 *3*			28 *1.1*	10.5 *0.4*
303-7 8 way	116 *4.6*	90 *3.5*	45 *1.8*	34 *1.3*	34 *1.3*	68 *2.7*	90 *3.5*	9 *0.4*	49 *1.9*	77 *3*	105 *4.1*	154 *6.1*	28 *1.1*	10.5 *0.4*
303-8 4 way	116 *4.6*	90 *3.5*	45 *2*	34 *1.3*	34 *1.3*	68 *2.7*	90 *3.5*	9 *0.4*	49 *1.9*	77 *3*			28 *1.1*	10.5 *0.4*
303-8 8 way	116 *4.6*	90 *3.5*	45 *2*	34 *1.3*	34 *1.3*	68 *2.7*	90 *3.5*	9 *0.4*	49 *1.9*	77 *3*	105 *4.1*	154 *6.1*	28 *1.1*	10.5 *0.4*
303-9 4 way	116 *4.6*	90 *3.5*	45 *1.8*	34 *1.3*	34 *1.3*	68 *2.7*	90 *3.5*	9 *0.4*	49 *1.9*	77 *3*			28 *1.1*	10.5 *0.4*
303-9 8 way	116 *4.6*	90 *3.5*	45 *1.8*	34 *1.3*	34 *1.3*	68 *2.7*	90 *3.5*	9 *0.4*	49 *1.9*	77 *3.0*	105.0 *4.1*	154 *6.1*	28 *1.1*	10.5 *0.4*

Pressure drop versus flow

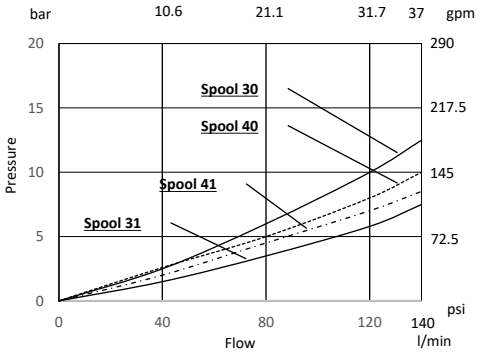
357(303-7) / 459 (662-7)



358(303-8) / 460 (662-8)



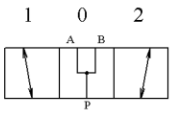
359(303-9) / 461 (662-9)



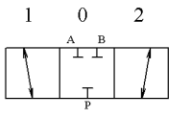
Spool circuits

3 ways

Type 31
3 position, ports connected in pos. 0

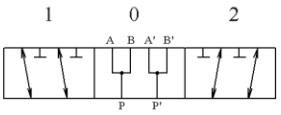


Type 30
3 position, ports closed in pos. 0

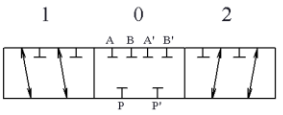


6 ways

Type 31
3 position, P and P' line flow on workports in pos. 0

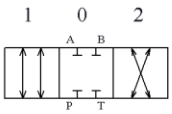


Type 30
3 position, ports closed in pos. 0

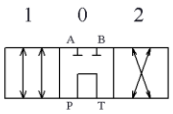


4 ways

Type 40
3 position, ports closed in pos. 0

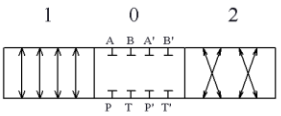


Type 42
3 position, P in T ports closed in pos. 0



8 ways

Type 40
3 position, ports closed in pos. 0



Type 42
3 position, P in T, P' in T' ports closed in pos. 0