



## DH-DHZ

### Rotary control diverter valves

- 3 - 4 - 6 - 8 ways configuration
- Galvanized body

This catalogue shows technical specifications and diagrams measured with mineral oil of 46 mm<sup>2</sup>/s (46 cSt) viscosity at 40°C - (104°F) temperature.

WORKING CONDITIONS		DHZ5	DHZ10	DHZ20	DHZ25	DH30
N. of available ways		3/6 - 4/8	3/6 - 4/8	3/6 - 4/8	3/6 - 4/8	3/6
Max. flow rating		60 l/min (18.5 US gpm)	90 l/min (23.7 US gpm)	140 l/min (37 US gpm)	200 l/min (52.8 US gpm)	280 l/min (74 US gpm)
Max. pressure		315 bar (4600 psi)	315 bar (4600 psi)	315 bar (4600 psi)	250 bar (3600 psi)	210 bar (3050 psi)
Internal leakage A(B)⇒T	Δp = 100 bar (1450 psi)	3 cm <sup>3</sup> /min (0.18 in <sup>3</sup> /min)	3 cm <sup>3</sup> /min (0.18 in <sup>3</sup> /min)	3 cm <sup>3</sup> /min (0.18 in <sup>3</sup> /min)	3 cm <sup>3</sup> /min (0.18 in <sup>3</sup> /min)	3 cm <sup>3</sup> /min (0.18 in <sup>3</sup> /min)
Fluid		Mineral based oil				
Fluid temperature	with NBR (BUNA-N) 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	da 15 a 75 mm <sup>2</sup> /s (from 15 to 75 cSt)				
	min.	12 mm <sup>2</sup> /s (12 cSt)				
	max.	400 mm <sup>2</sup> /s (400 cSt)				
Max. level of contamination		21/19/16 - ISO 4406 - NAS 1638 - class 10				
Ambient temperature for working conditions		from -40°C to 60°C (from -40°F to 140°F)				

NOTE - For different working conditions please contact Sales Dept.

### Available threads

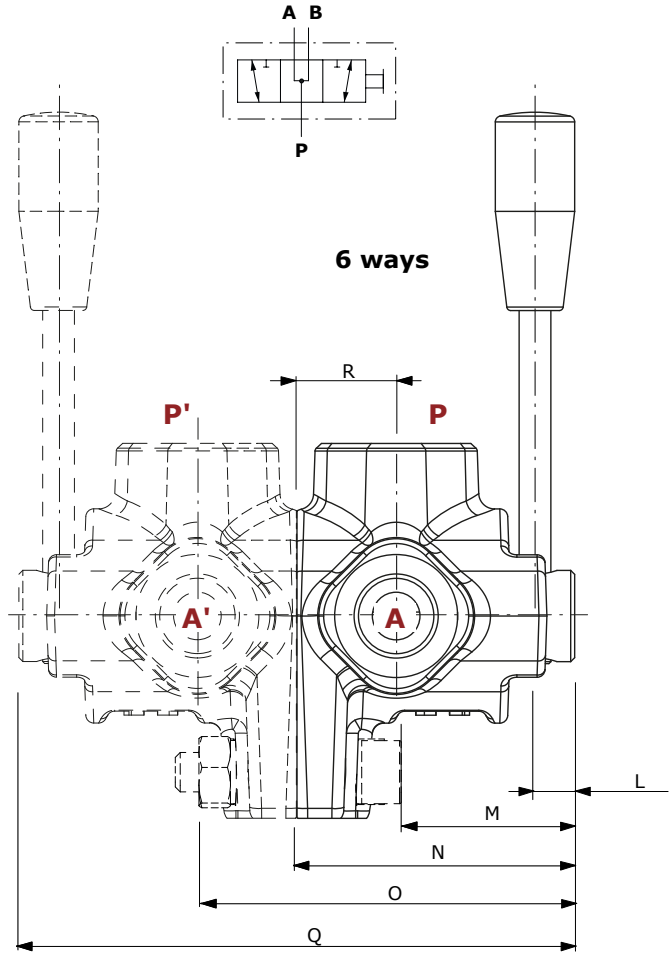
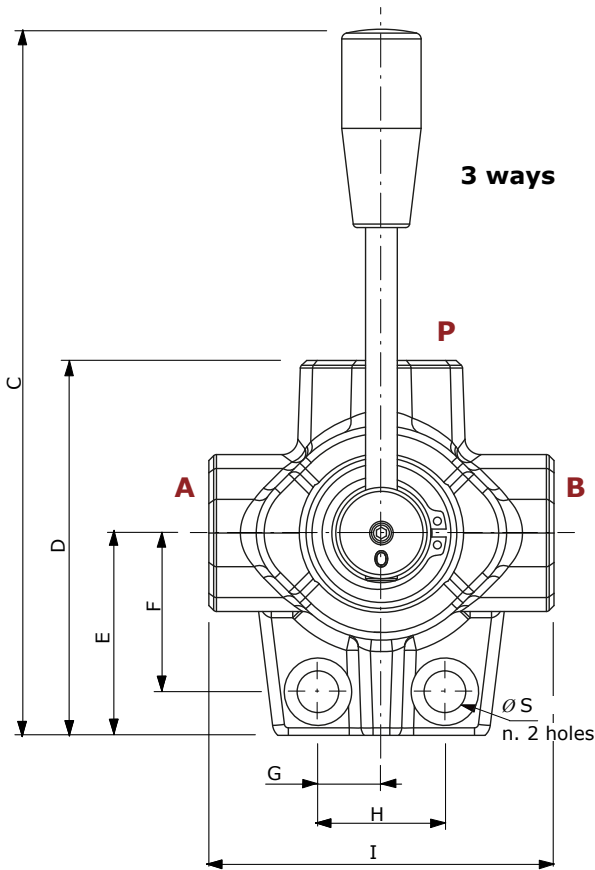
PORTS THREAD		
ALL PORTS	BSP	UN-UNF
<b>DHZ5</b>	G 3/8	3/4-16 (SAE 8)
<b>DHZ10</b>	G 1/2	7/8-14 (SAE 10)
<b>DHZ20</b>	G 3/4	1" 1/16-12 (SAE 12)
<b>DHZ25</b>	G 1	1" 5/16-12 (SAE 16)
<b>DH30</b>	G 1" 1/2	1" 7/8-12 (SAE 24)

## Dimensional data and hydraulic circuit

### 3 - 6 ways

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

**DHZ10 / 3 A ... (CRZ)** Galvanized body (only DHZ body)  
 Serie N° ways Spool type Port type (is different from BSP)



Type	C	D	E	F	G	H	I	L	M	N	O	Q	R	Ø S
	mm* in*													
<b>DHZ5/3</b>	169.5 6.67	77.5 3.05	40.5 1.59	30 1.18	12.2 0.48	24.5 0.96	74 2.91	10 0.39	42 1.65	63 2.48	-	-	21 0.83	8.5 0.33
<b>DHZ5/6</b>	169.5 6.67	77.5 3.05	40.5 1.59	30 1.18	12.2 0.48	24.5 0.96	74 2.91	10 0.39	42 1.65	63 2.48	84 3.31	126 4.96	21 0.83	8.5 0.33
<b>DHZ10/3</b>	178 7.01	94.5 3.72	51 2.04	40 1.57	16 0.63	32 1.26	87 3.42	10 0.39	45 1.77	70 2.75	-	-	25 0.98	10.5 0.41
<b>DHZ10/6</b>	178 7.01	94.5 3.72	51 2.04	40 1.57	16 0.63	32 1.26	87 3.42	10 0.39	45 1.77	70 2.75	95 3.74	140 5.51	25 0.98	10.5 0.41
<b>DHZ20/3</b>	196 7.72	105 4.13	60 2.36	45 1.77	16 0.63	32 1.26	92 3.62	10 0.39	48.5 1.90	78.5 3.1	-	-	30 1.18	10.5 0.41
<b>DHZ20/6</b>	196 7.72	105 4.13	60 2.36	45 1.77	16 0.63	32 1.26	92 3.62	10 0.39	48.5 1.90	78.5 3.1	108.5 4.27	157 6.18	30 1.18	10.5 0.41
<b>DH25/3</b>	204 8.03	120 4.72	70 2.75	55 2.16	16 0.63	32 1.26	100 3.94	14 0.55	58.5 2.30	93.5 3.68	-	-	35 1.38	10.5 0.41
<b>DH25/6</b>	204 8.03	120 4.72	70 2.75	55 2.16	16 0.63	32 1.26	100 3.94	14 0.55	58.5 2.30	93.5 3.68	128.5 5.06	187 7.36	35 1.38	10.5 0.41
<b>DH30/3</b>	284 11.18	150 5.9	85 3.35	65 2.56	24.5 0.96	49 1.93	130 5.12	15 0.59	69.5 2.74	115.5 4.55	-	-	46 1.81	10.5 0.41
<b>DH30/6</b>	284 11.18	150 5.9	85 3.35	65 2.56	24.5 0.96	49 1.93	130 5.12	15 0.59	69.5 2.74	115.5 4.55	161.5 6.36	231 9.09	46 1.81	10.5 0.41

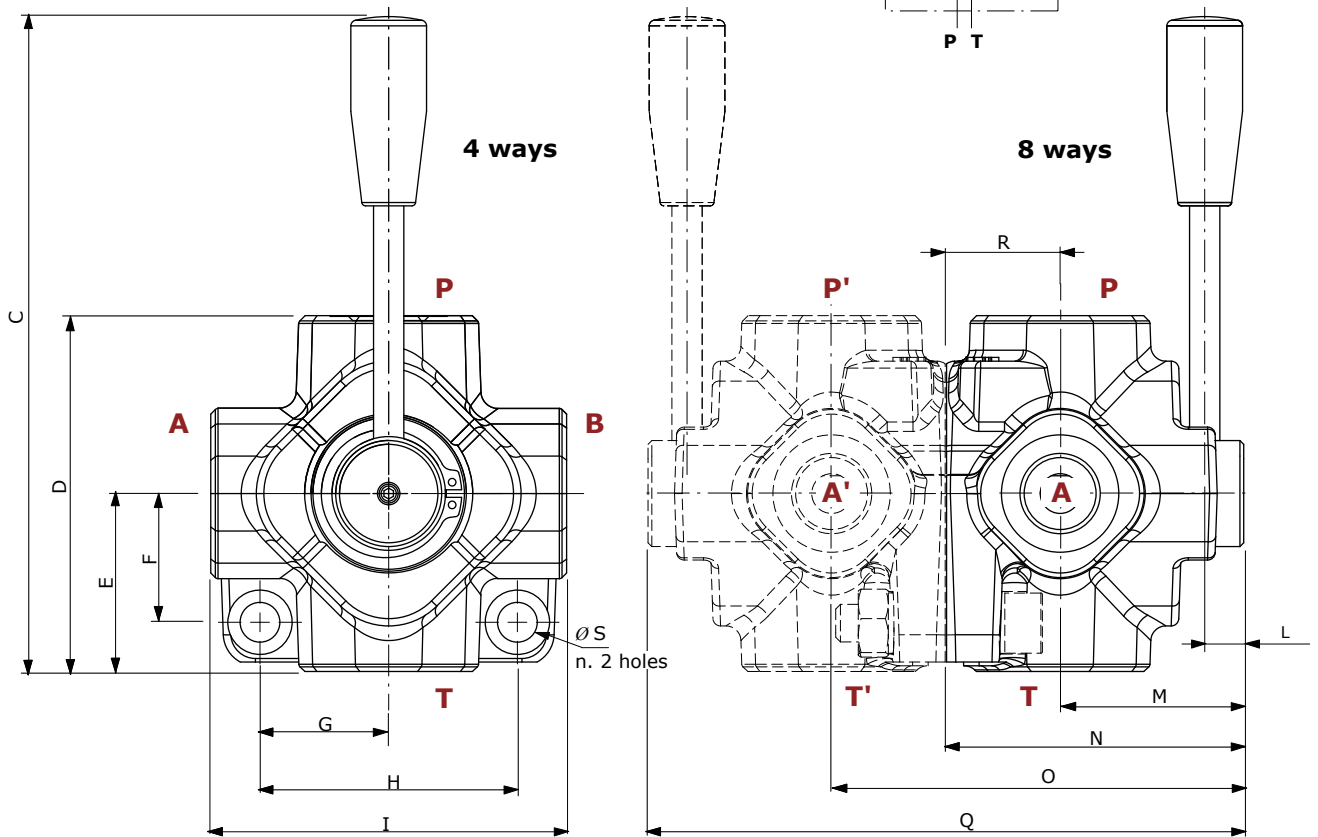
(\* ) - Codes are referred to **BSP** thread

**Dimensional data and hydraulic circuit**

**4 - 8 ways**

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

**DHZ10 / 4 A ... (CRZ)** Galvanized body (only DHZ body)  
 Serie N° ways Spool type Port type (is different from BSP)

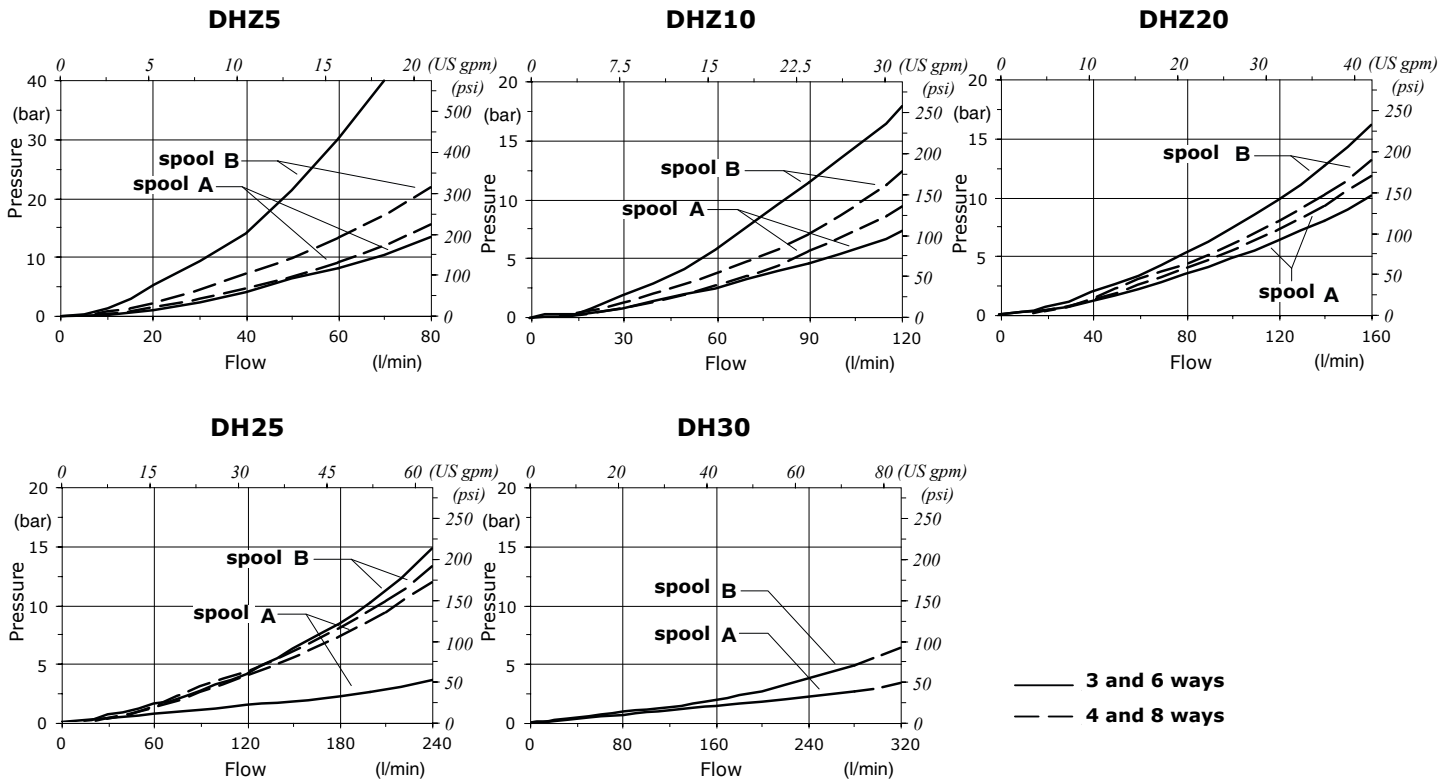


Type	C	D	E	F	G	H	I	L	M	N	O	Q	R	ØS
	mm* in*													
<b>DHZ5/4</b>	167 6.57	79 3.11	39.5 1.55	27.5 1.08	27 1.06	54 2.12	79 3.11	10 0.39	45 1.77	70 2.75	-	-	25 0.98	8.5 0.33
<b>DHZ5/8</b>	167 6.57	79 3.11	39.5 1.55	27.5 1.08	27 1.06	54 2.12	79 3.11	10 0.39	45 1.77	70 2.75	95 3.74	140 5.51	25 0.98	8.5 0.33
<b>DHZ10/4</b>	173 6.81	94 3.70	47 1.85	34 1.34	34 1.33	68 3.70	94 3.70	10 0.39	48.5 1.91	78.5 3.1	-	-	30 1.18	10.5 0.41
<b>DHZ10/8</b>	173 6.81	94 3.70	47 1.85	34 1.34	34 1.33	68 3.70	94 3.70	10 0.39	48.5 1.91	78.5 3.1	108,5 4.27	157 6.18	30 1.18	10.5 0.41
<b>DH20/4</b>	185 7.28	100 3.94	50 1.97	37 1.46	37 1.45	74 2.91	100 3.94	14 0.55	61 2.40	92 3.62	-	-	31 1.22	10.5 0.41
<b>DH20/8</b>	185 7.28	100 3.94	50 1.97	37 1.46	37 1.45	74 2.91	100 3.94	14 0.55	61 2.40	92 3.62	123 4.84	184 7.24	31 1.22	10.5 0.41
<b>DH25/4</b>	251 9.88	112 4.41	56 2.2	44 1.73	44 1.73	88 3.46	112 4.41	13.5 0.53	60 2.36	95 3.74	-	-	35 1.38	10.5 0.41
<b>DH25/8</b>	251 9.88	112 4.41	56 2.2	44 1.73	44 1.73	88 3.46	112 4.41	13.5 0.53	60 2.36	95 3.74	130 5.12	190 7.48	35 1.38	10.5 0.41

(\* ) - Codes are referred to **BSP** thread

## Performance data

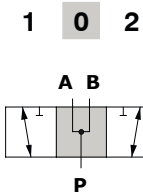
### Pressure drop versus flow P → A(B)



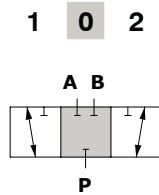
## Spool circuits

### 3 ways

**Type A**  
3 position,  
ports connected in pos. 0

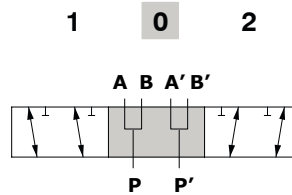


**Type B**  
3 position,  
ports closed in pos. 0

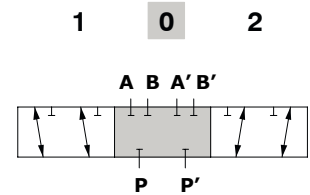


### 6 ways

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

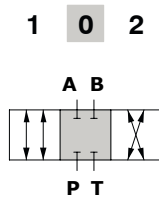


**Type B**  
3 position,  
ports closed in pos. 0

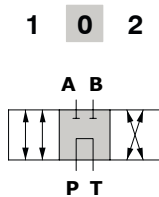


### 4 ways

**Type A**  
3 position,  
ports closed in pos. 0

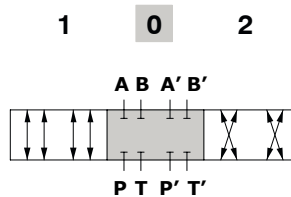


**Type B**  
3 position, P in T,  
ports closed in pos. 0

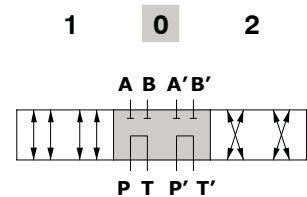


### 8 ways

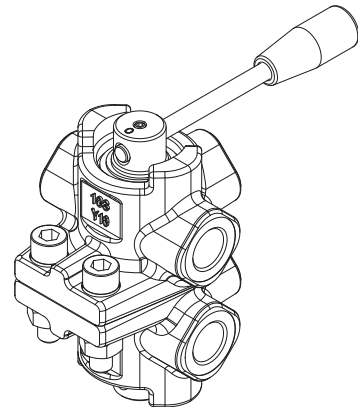
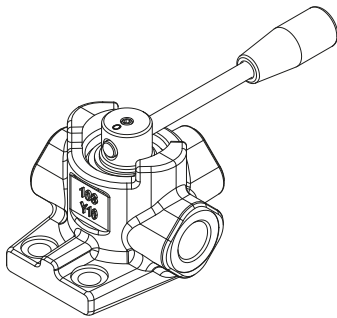
**Type A**  
3 position,  
ports closed in pos. 0



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

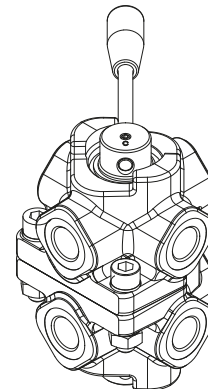
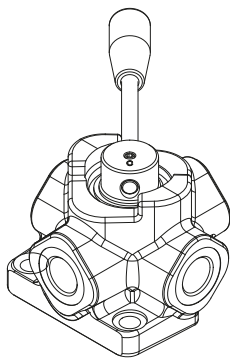


**Valve ordering codes**



DH-DHZ.../3	
Code*	Description
132Z31110	DHZ5/3A
132Z31210	DHZ5/3B
134Z31110	DHZ10/3A
134Z31210	DHZ10/3B
136Z31110	DHZ20/3A
136Z31210	DHZ20/3B
137031110	DH25/3A
137031210	DH25/3B
139031110	DH30/3A
139031210	DH30/3B

DH-DHZ.../6	
Code*	Description
132Z61110	DHZ5/6A
132Z61210	DHZ5/6B
134Z61110	DHZ10/6A
134Z61210	DHZ10/6B
136Z61110	DHZ20/6A
136Z61210	DHZ20/6B
137061110	DH25/6A
137061210	DH25/6B
139061110	DH30/6A
139061210	DH30/6B



DH-DHZ.../4	
Code*	Description
132Z41110	DHZ5/4A
132Z41210	DHZ5/4B
134Z41110	DHZ10/4A
134Z41210	DHZ10/4B
136041110	DH20/4A
136041210	DH20/4B
137041110	DH25/4A
137041210	DH25/4B

DH-DHZ.../8	
Code*	Description
132Z81110	DHZ5/8A
132Z81210	DHZ5/8B
134Z81110	DHZ10/8A
134Z81210	DHZ10/8B
136081110	DH20/8A
136081210	DH20/8B
137081110	DH25/8A
137081210	DH25/8B

(\* ) - Codes are referred to **BSP** thread