

Part number:

HYDROMA

HYDRAULICKÉ SYSTÉMY

**HIDROMA
SYSTEMS**

UKŁADY HYDRAULICZNE

HYDROMA

ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ



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 mm²/s (46 cSt) viscosity at 40°C - (104°F) temperature.

| WORKING CONDITIONS | | DHZ5 | DHZ10 | DHZ20 | DH25 | 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 ³ /min (0.18 in ³ /min) | 3 cm ³ /min (0.18 in ³ /min) | 3 cm ³ /min (0.18 in ³ /min) | 3 cm ³ /min (0.18 in ³ /min) | 3 cm ³ /min (0.18 in ³ /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 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 | | 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

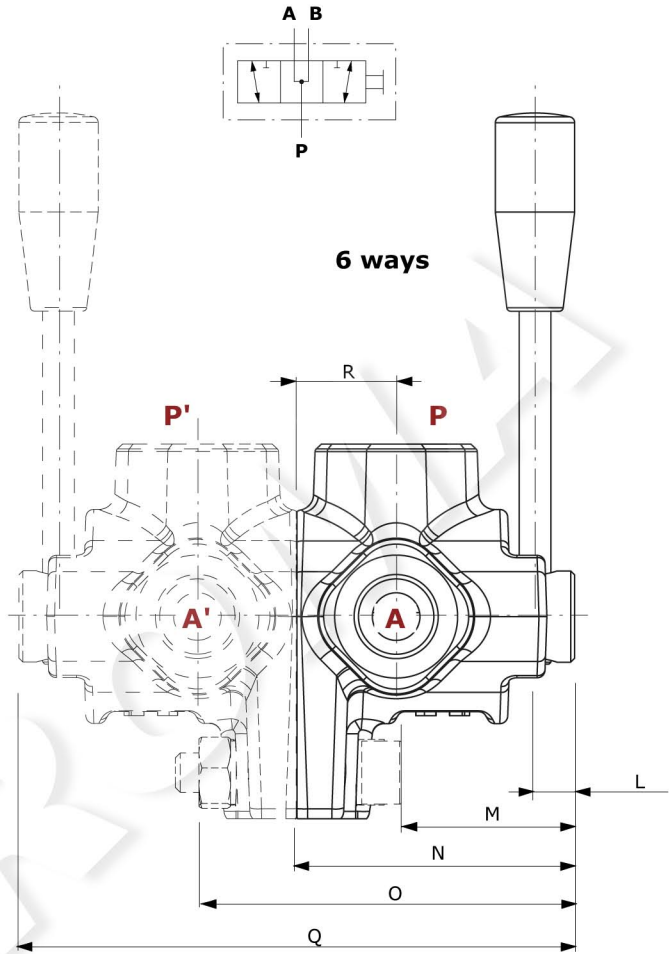
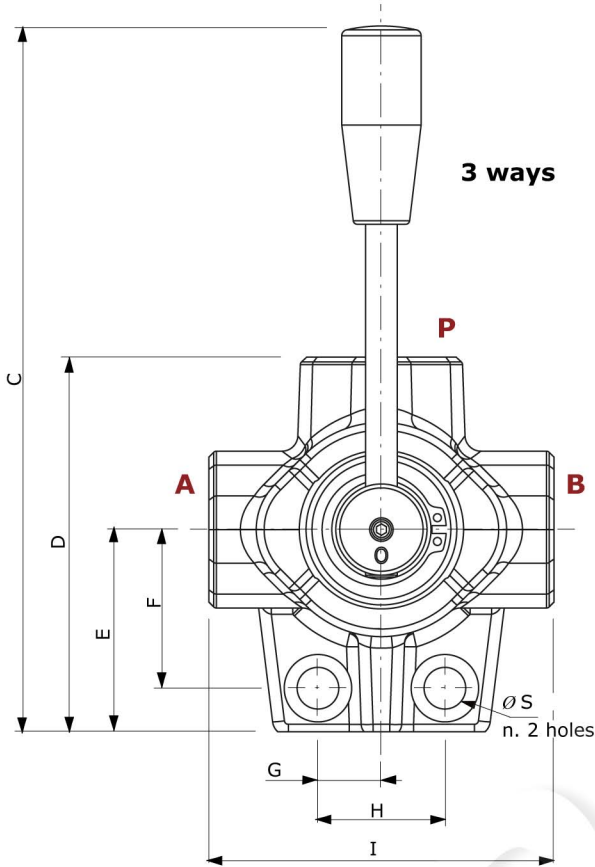
| PORTS THREAD | | |
|--------------|----------|---------------------|
| ALL PORTS | BSP | UN-UNF |
| DHZ5 | G 3/8 | 3/4-16 (SAE 8) |
| DHZ10 | G 1/2 | 7/8-14 (SAE 10) |
| DHZ20 | G 3/4 | 1" 1/16-12 (SAE 12) |
| DH25 | G 1 | 1" 5/16-12 (SAE 16) |
| DH30 | G 1" 1/2 | 1" 7/8-12 (SAE 24) |

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 | ØS |
|----------------|------------|-----------|-----------|---------|-----------|-----------|----------|---------|-----------|------------|------------|----------|---------|-----------|
| | mm* in* | | | | | | | | | | | | | |
| DHZ5/3 | 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 |
| DHZ5/6 | 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 |
| DHZ10/3 | 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 |
| DHZ10/6 | 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 |
| DHZ20/3 | 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 |
| DHZ20/6 | 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 |
| DH25/3 | 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 |
| DH25/6 | 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 |
| DH30/3 | 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 |
| DH30/6 | 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 |

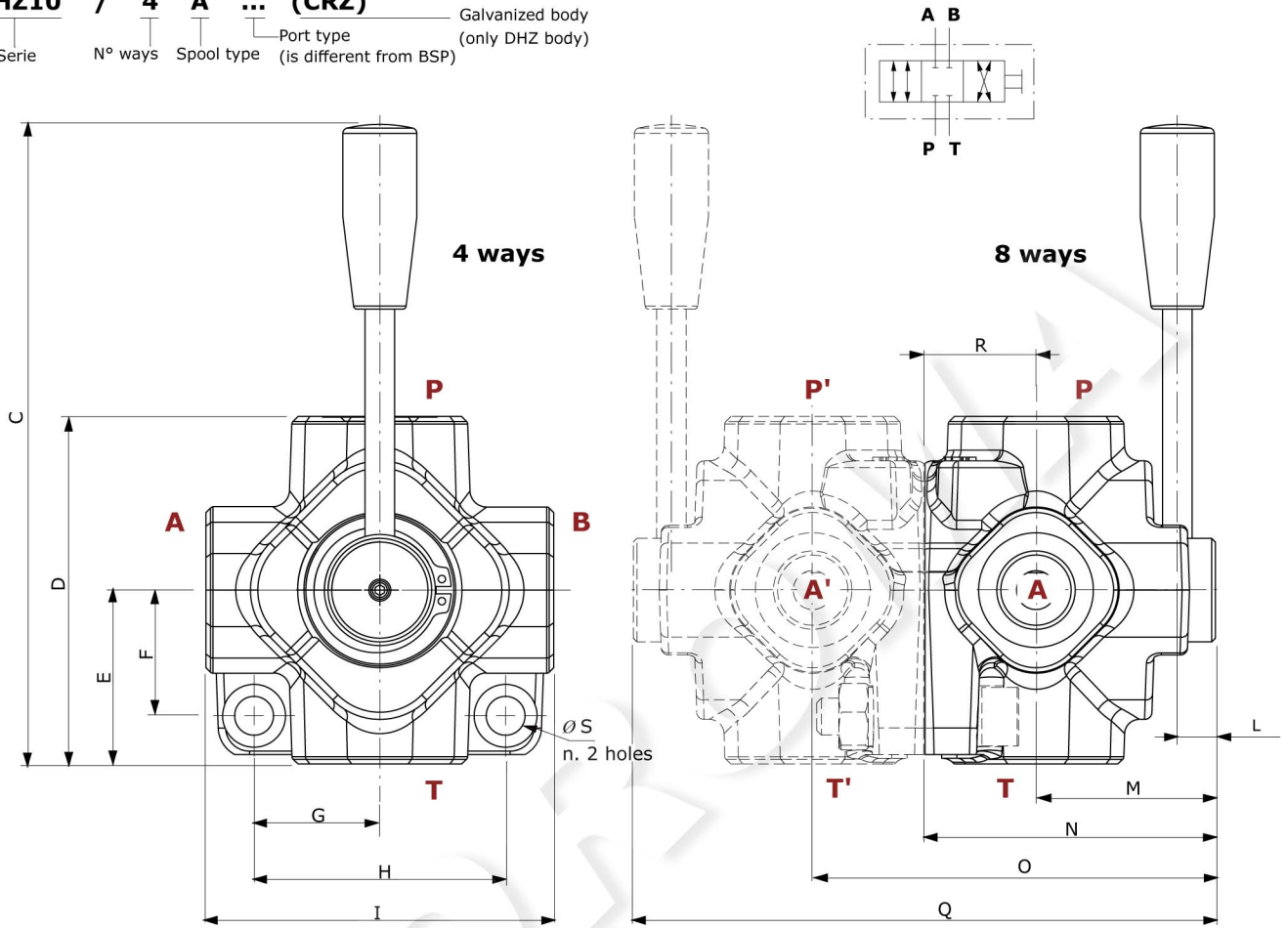
(*) - Codes are referred to **BSP** thread

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)

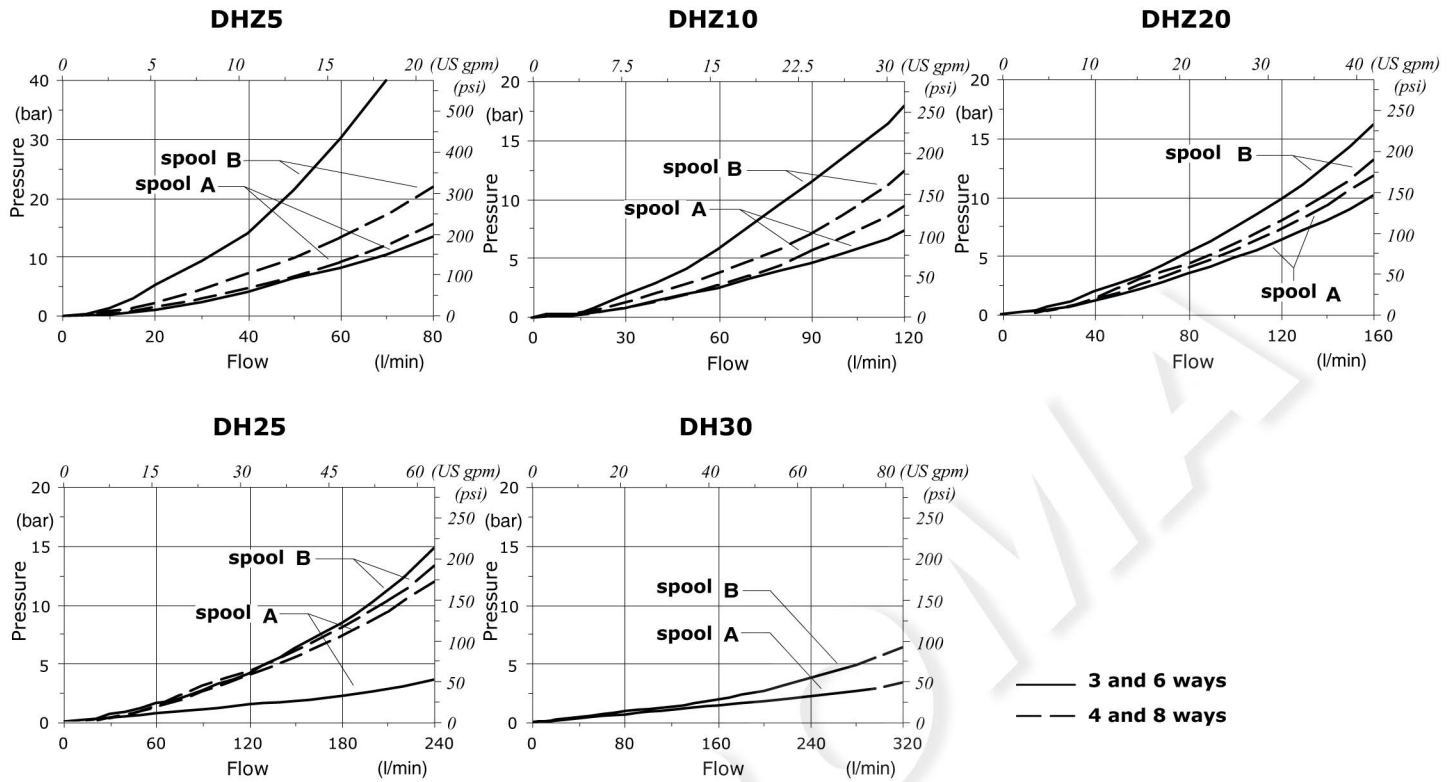


| Type | C | D | E | F | G | H | I | L | M | N | O | Q | R | Ø S |
|----------------|----------|----------|-----------|-----------|---------|---------|----------|-----------|-----------|----------|------------|----------|---------|-----------|
| | mm* in* | | | | | | | | | | | | | |
| DHZ5/4 | 167 6.57 | 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 |
| DHZ5/8 | 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 |
| DHZ10/4 | 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 |
| DHZ10/8 | 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 |
| DH20/4 | 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 |
| DH20/8 | 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 |
| DH25/4 | 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 |
| DH25/8 | 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

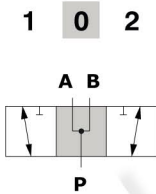
Pressure drop versus flow P → A(B)



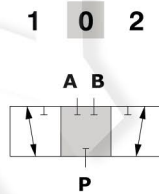
Spool circuits

3 ways

Type A
3 position,
ports connected in pos. 0

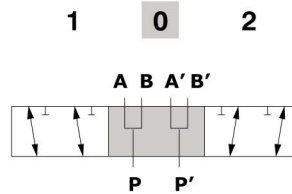


Type B
3 position,
ports closed in pos. 0

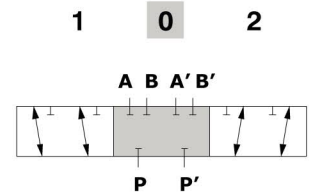


6 ways

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

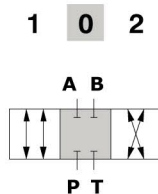


Type B
3 position,
ports closed in pos. 0

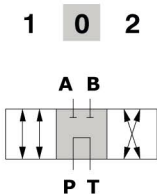


4 ways

Type A
3 position,
ports closed in pos. 0

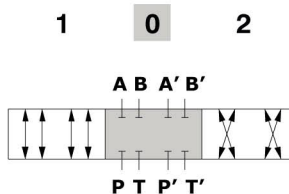


Type B
3 position, P in T,
ports closed in pos. 0

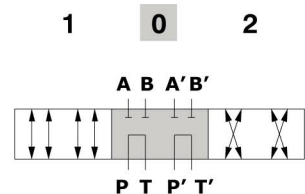


8 ways

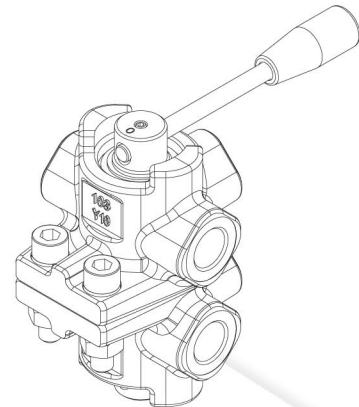
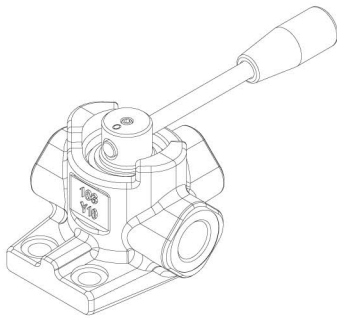
Type A
3 position,
ports closed in pos. 0



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

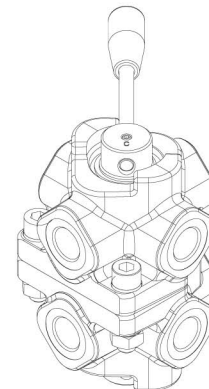
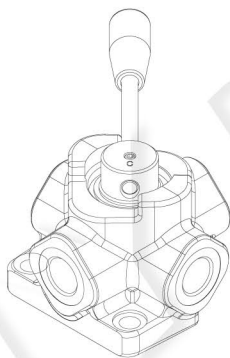


Valve ordering codes



| 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