Compact Hydraulics
Minivalves
## Content

### Pressure valves

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Type</th>
<th>( Q_{\text{max}} ) (l/min)</th>
<th>( P_{\text{max}} ) (bar)</th>
<th>Cavity</th>
<th>Brochure no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Valve Symbol]</td>
<td>DB06A-01</td>
<td>15</td>
<td>350</td>
<td>U</td>
<td>FC06-2</td>
</tr>
<tr>
<td>![Valve Symbol]</td>
<td>DB06C-01</td>
<td>20</td>
<td>350</td>
<td>U</td>
<td>FC06-2</td>
</tr>
</tbody>
</table>

### Flow valves

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Type</th>
<th>( Q_{\text{max}} ) (l/min)</th>
<th>( P_{\text{max}} ) (bar)</th>
<th>Cavity</th>
<th>Brochure no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Valve Symbol]</td>
<td>SR06-01</td>
<td>15</td>
<td>350</td>
<td>U</td>
<td>FC06-2</td>
</tr>
</tbody>
</table>

### Check valves

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Type</th>
<th>( Q_{\text{max}} ) (l/min)</th>
<th>( P_{\text{max}} ) (bar)</th>
<th>Cavity</th>
<th>Brochure no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Valve Symbol]</td>
<td>RV06A-01</td>
<td>20</td>
<td>350</td>
<td>U</td>
<td>FC06-2</td>
</tr>
<tr>
<td>![Valve Symbol]</td>
<td>RV06B-01</td>
<td>15</td>
<td>350</td>
<td>U</td>
<td>FC06-3</td>
</tr>
<tr>
<td>![Valve Symbol]</td>
<td>RV06C-01</td>
<td>20</td>
<td>350</td>
<td>U</td>
<td>FC06-3</td>
</tr>
</tbody>
</table>

### Directional poppet valves

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Type</th>
<th>( Q_{\text{max}} ) (l/min)</th>
<th>( P_{\text{max}} ) (bar)</th>
<th>Cavity</th>
<th>Brochure no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Valve Symbol]</td>
<td>WS06Z-01</td>
<td>20</td>
<td>350</td>
<td>U</td>
<td>FC06-2</td>
</tr>
<tr>
<td>![Valve Symbol]</td>
<td>WS06Y-01</td>
<td>20</td>
<td>350</td>
<td>U</td>
<td>FC06-2</td>
</tr>
<tr>
<td>![Valve Symbol]</td>
<td>WS06ZR-01</td>
<td>20</td>
<td>350</td>
<td>U</td>
<td>FC06-2</td>
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<tr>
<td>![Valve Symbol]</td>
<td>WS06YR-01</td>
<td>20</td>
<td>350</td>
<td>U</td>
<td>FC06-2</td>
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Part no. 2610333

Part no. 2610394
### Directional spool valves

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Type</th>
<th>Nominal voltage</th>
<th>Electrical connection</th>
<th>Brochure no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/2-spool valve, normally closed</td>
<td>W</td>
<td>WK06W-01</td>
<td>10</td>
<td>350</td>
</tr>
<tr>
<td>2/2-spool valve, normally open</td>
<td>V</td>
<td>WK06V-01</td>
<td>15</td>
<td>350</td>
</tr>
<tr>
<td>3/2-spool valve</td>
<td>C</td>
<td>WK06C-01</td>
<td>10</td>
<td>350</td>
</tr>
<tr>
<td>4/2-spool valve</td>
<td>Y</td>
<td>WK06Y-01</td>
<td>10</td>
<td>350</td>
</tr>
<tr>
<td>4/3-spool valve</td>
<td>E</td>
<td>WK06E-01</td>
<td>11</td>
<td>350</td>
</tr>
<tr>
<td>4/3-spool valve</td>
<td>G</td>
<td>WK06G-01</td>
<td>7</td>
<td>350</td>
</tr>
<tr>
<td>4/3-spool valve</td>
<td>H</td>
<td>WK06H-01</td>
<td>9</td>
<td>350</td>
</tr>
<tr>
<td>4/3-spool valve</td>
<td>J</td>
<td>WK06J-01</td>
<td>11</td>
<td>350</td>
</tr>
</tbody>
</table>

### Coils for Minivalves

<table>
<thead>
<tr>
<th>Type (Part No.)</th>
<th>Nominal voltage</th>
<th>Electrical connection</th>
<th>Brochure No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plug Type G</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2610160</td>
<td>12 VDC</td>
<td>Plug to EN 175301-803 Form B, DIN 43650B</td>
<td>5.155.0</td>
</tr>
<tr>
<td>2610161</td>
<td>24 VDC</td>
<td>Plug for DC coils Part No. 2600570</td>
<td>5.155.0</td>
</tr>
<tr>
<td>2610156</td>
<td>105 VDC</td>
<td>Plug with rectifier for AC coils Part No. 2600582</td>
<td>5.155.0</td>
</tr>
<tr>
<td>2610159</td>
<td>205 VDC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2610156 + 2600582*</td>
<td>115 VAC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2610159 + 2600582*</td>
<td>230 VAC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Plug with rectifier (see right side)

| Plug Type N     |                 | Deutsch plug, axial   | 5.155.0 |
| Plug Type L     |                 |                      | 5.155.0 |
| 2610151         | 12 VDC          | Coil with 2 leadwires 0,75mm², 450 mm long | 5.155.0 |
| 2610162         | 24 VDC          |                       | 5.155.0 |
Pressure Relief Valve
Ball type, direct acting
Cartridge-Minivalve – 350 bar
DB06A-01

FEATURES
- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extend service life
- Quick response
- Adjustable under full system pressure
- Adjustable across the entire pressure range
- Various pressure ranges up to 350 bar
- Foreseen for the maximal pressure protection of the system

SPECIFICATIONS
- Operating pressure: max. 350 bar
- Nominal flow: max. 15 l/min
- Pressure ranges: 0 up to 125 bar, 0 up to 210 bar, 35 up to 350 bar
- Leakage: leakage-free, < max. 0.35 cm³/min at 75% nominal pressure
- Temperature range of operating fluid: Min. – 30°C up to max. +100°C
- Fluid: Hydraulic fluid to DIN 51524 T1 + T2
- Viscosity range: min. 7.4 mm²/s up to max. 420 mm²/s
- Filtration: Class 21 / 19 /16 according to ISO 4406 or cleaner
- Installation: no orientation restrictions
- Materials:
  - Valve body: steel with hardened work surfaces
  - Ball: hardened steel
  - Seals: NBR (Standard) / FKM (optional, temperature range -20°C up to +120°C)
  - Back-up rings: TPE-E
- Cavity: FC06-2
- Weight: 0.068 kg

FUNCTION
The Pressure relief valve DB06A is a direct acting, spring loaded ball valve. Its job is to limit the pressure in the system. The spring acts with a certain force on the ball and presses it on the valve seat. On the opposite side the system pressure works at port 1. If the hydraulic force is lower than the spring pressure the valve remains closed. Only if the force is higher, the valve opens and the flow will be let to port 2 (tank). If the system pressure is equal to the spring pressure the valve closes again.

Attention: Pressure at port 2 increases the opening pressure! If ports are interchanged or the pressure adjustment is higher than the operating pressure, the function of the valve is invalid.
**MODEL CODE**

**Basic model**
Pressure relief valve, direct acting

**Type**
01 = Standard

**Body & ports**
C = cartridge only
*versions in line bodies on request

**Seals**
N = NBR (Standard)
V = FKM (optional)

**Pressure range**
180 = 0 up to 125 bar (1800PSI)
300 = 0 up to 210 bar (3000PSI)
500 = 35 up to 350 bar (5000PSI)

**Adjustment option**
V = adjustable by tool

**Setting**
omission = 50% of max. Pressure
100 = factory preset, pressure in PSI (/10)
Other pressures on request

**Standard models**

<table>
<thead>
<tr>
<th>Name</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB06A-01-C-N-180V</td>
<td>2610428</td>
</tr>
<tr>
<td>DB06A-01-C-N-330V</td>
<td>2610235</td>
</tr>
<tr>
<td>DB06A-01-C-N-500V</td>
<td>2610155</td>
</tr>
<tr>
<td>Other types on request</td>
<td></td>
</tr>
</tbody>
</table>

**Line bodies**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
<th>Material</th>
<th>Ports</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>FH062-SB2</td>
<td>3740528</td>
<td>steel, zinc plated</td>
<td>G1/4</td>
<td>420 bar</td>
</tr>
<tr>
<td>FH062-AB2</td>
<td>3741297</td>
<td>Alu, anodized</td>
<td>G1/4</td>
<td>245 bar</td>
</tr>
<tr>
<td></td>
<td></td>
<td>other line bodies on request</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Seal kits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seal kit-NBR</td>
<td>2610184</td>
</tr>
<tr>
<td>Seal kit-FKM</td>
<td>2610185</td>
</tr>
</tbody>
</table>

**PERFORMANCE**

Measured at 28 mm²/s and T oil = 38°C

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**DIMENSIONS**

All dimensions in mm (inch)

Subject to technical modification

---

**CAVITY**

FC06-2

All dimensions in mm (inch)

Subject to technical modification

---

**Tools**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twist drill</td>
<td>2582046</td>
</tr>
<tr>
<td>Countersink</td>
<td>2582047</td>
</tr>
</tbody>
</table>

**Annotaton**

The technical information in this brochure are relating to the operating conditions and applications.

At deviant applications and/or operating conditions please contact the technical dept.

Technical information are subject to technical modifications.

HYDAC Fluidtechnik GmbH
Justus-von-Liebig-Str. 5
66280 Sulzbach / Saar
Tel.: 06897 / 509 -0
Fax: 06897 / 509 -598
Email: flutec@hydac.com
Pressure Relief Valve
Poppet type, direct acting
Cartridge-Minivalve – 350 bar
DB06C-01

FEATURES
- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extend service life
- Fast response
- Adjustable under full system pressure
- Adjustable over the u.m. pressure range
- Various pressure ranges up to 350 bar
- Poppet type valve with damped characteristics

SPECIFICATIONS
Operating pressure: max. 350 bar
Nominal flow: max. 20 l/min
Pressure ranges:
0 up to 125 bar
0 up to 210 bar
35 up to 350 bar
Leakage: leakage-free, < max. 0.35 cm³/min at 75% nominal pressure
Temperature range of operating fluid: Min. – 30°C up to max. +100°C
Ambient temperature range: Min. – 30°C up to max. +60°C
Fluid: Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range: min. 7.4 mm²/s up to max. 420 mm²/s
Filtration: Class 21 / 19 / 16 according to ISO 4406 or cleaner
MTTF<sub>d</sub>: 150 years
Installation: no orientation restrictions
Materials:
Valve body: steel with hardened work surfaces
Piston: hardened and ground steel
Seals: NBR (Standard)
FKM (optional, temperature range -20°C up to +120°C)
Back-up rings: TPE-E
Cavity: FC06-2
Weight: 0.068 kg

FUNCTION
The Pressure relief valve DB06C is a direct acting, spring loaded valve with damped characteristics. Its job is to limit the pressure in the system. The spring acts with a certain force on the piston and presses it on the valve seat. On the opposite side the system pressure works at port 1. If the hydraulic force is lower than the spring pressure the valve remains closed. Only if the force is higher, the valve opens and the flow will be let to port 2 (tank). If the system pressure is equal to the spring pressure the valve closes again.
Attention: Pressure at port 2 increases the opening pressure! If ports are interchanged or the pressure adjustment is higher than the operating pressure, the function of the valve is invalid.
MODEL CODE

Basic model
Pressure relief valve, direct acting

Type
01 = Standard

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Pressure range
180 = 0 up to 125 bar (1800PSI)
300 = 0 up to 210 bar (3000PSI)
500 = 35 up to 350 bar (5000PSI)

Adjustment option
V = adjustable by tool

Setting
omission = 50% of max. Pressure
300 = factory preset pressure in PSI (/10)
Other pressures on request

Standard models
Name Part No.
DB06C-01-C-N-180V 2610322
DB06C-01-C-N-300V 2610324
DB06C-01-C-N-500V 2610342
Other types on request

*Line bodies
Code Part No. Material Ports Pressure
FH062-SB2 3740528 steel, zinc plated G1/4 420 bar
FH062-AB2 3741297 Alu, anodized G1/4 245 bar
other line bodies on request

Seal kits
Code Part No.
Seal kit-NBR 2610184
Seal kit-FKM 2610185

PERFORMANCE
Measured at 28 mm²/s and T oil = 38°C

Annotation
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HYDAC Fluidtechnik GmbH
Justus-von-Liebig-Str. 5
66280 Sulzbach / Saar
Tel.: 06897 / 509 -0
Fax: 06897 / 509 -998
Email: flutec@hydac.com
**Flow Regulator**

**Spool type, direct acting**

**Cartridge-Minivalve – 350 bar**

**SR06-01**

**FEATURES**

- All exposed surfaces corrosion-proof
- Pressure compensated flow control of consumers
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extend service life
- Superior stability throughout the entire flow range

**SPECIFICATIONS**

- **Operating pressure:**
  - max. 350 bar at port 1 (pump)
  - max. 210 bar at port 2 (consumer)
- **Nominal flow:**
  - max. 15 l/min
- **Flow ranges:**
  - 0,25 up to 1,00 l/min
  - 1,00 up to 3,80 l/min
  - 3,80 up to 15,0 l/min
- **Temperature range of operating fluid:**
  - Min. – 30°C up to max. +100°C
- **Ambient temperature range:**
  - Min. – 30°C up to max. +60°C
- **Fluid:**
  - Hydraulic fluid to DIN 51524 T1 + T2
- **Viscosity range:**
  - min. 7,4 mm²/s up to max. 420 mm²/s
- **Class 21 / 19 /16 according to ISO 4406 or cleaner**
- **MTTFd:**
  - 150 years
- **Installation:**
  - no orientation restrictions
- **Materials:**
  - Valve body: steel with hardened work surfaces
  - Piston: hardened and ground steel
  - Seals: NBR (Standard)
  - FKM (optional, temperature range -20°C up to +120°C)
  - Back-up rings: TPE-E
- **Cavity:**
  - FC06-2
- **Weight:**
  - 0,023 kg

**FUNCTION**

The SR06 is a 2 way directional flow control-valve, which keeps the nominal flow constant by means of a control function. The nominal flow is almost independent of the pressure and the viscosity. The valve is equipped with fixed orifice and integrated pressure compensator. The measuring orifice determines the nominal flow-adjustment range which is adjustable within a small range. If there is flow from port 1 to 2, a pressure differential is created at the measuring orifice. If the pressure compensator is in regulating position there is a balance of pressure differential at control piston surface on the one side and spring force on the other side. With rising flow (higher pressure differential) the cross-section of the regulating orifice will be controlled that there is a balance of forces. Hereby a constant outlet flow will be reached.
MODEL CODE

SR06 = 01 - C - N - 0.3 V 0.1

Basic model
flow control valve, direct acting

Type
01 = Standard

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Nominal flow range
0.3 = 0.25 up to 1.00 l/min (0.3 gpm)
1.0 = 1.00 up to 3.80 l/min (1.0 gpm)
4.0 = 3.80 up to 15.0 l/min (4.0 gpm)

Adjustment option
V = adjustable by tool

Setting
none = 50% of maximal Nominal flow
0.1 = 0.23 l/min – optional pre-adjustment on request

Standard models
Name | Part No.
--- | ---
SR06-01-C-N-0.3V | 2610213
SR06-01-C-N-1.0V | 2610194
SR06-01-C-N-4.0V | 2610214

Other types on request
*Line bodies
Code | Part No. | Material | Ports | Pressure
--- | --- | --- | --- | ---
FH062-SB2 | 3740528 | steel, zinc plated | G1/4 | 420 bar
FH062-AB2 | 3741297 | Alu, anodized | G1/4 | 245 bar

other line bodies on request

Seal kits
Code | Part No.
--- | ---
Seal kit-NBR | 2610184
Seal kit-FKM | 2610185

PERFORMANCE

Measured at 28 mm²/s and T oil = 38°C

Annotation
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Check Valve
Ball type
Cartridge-Minivalve – 350 bar
RV06A-01

FEATURES
- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extend service life
- Superior stability throughout the entire flow range

SPECIFICATIONS
- Operating pressure: max. 350 bar
- Nominal flow: max. 20 l/min
- Cracking pressures: 0,35 bar, 2,10 bar
- Leakage: leakage-free, < max. 0,35 cm³/min at nominal pressure
- Temperature range of operating fluid: Min. – 30°C up to max. +100°C
- Ambient temperature range: Min. – 30°C up to max. +60°C
- Fluid: Hydraulic fluid to DIN 51524 T1 + T2
- Viscosity range: min. 7,4 mm²/s up to max. 420 mm²/s
- Filtration: Class 21 / 19 /16 according to ISO 4406 or cleaner
- Installation: no orientation restrictions
- Materials:
  - Valve body: steel with hardened work surfaces
  - Ball: hardened steel
  - Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C)
  - Back-up rings: TPE-E
- Cavity: FC06-2
- Weight: 0,045 kg

FUNCTION
The check valve RV06A is a direct acting, spring loaded ball valve. In the valve the spring holds the ball in closed position and blocks therefore from port 2 to 1. The valve opens, if the pressure at port 1 is higher than the pressure at port 2 including the spring force.
**MODEL CODE**

**Basic model**
Check valve

**Type**
01 = Standard

**Body & ports**
C = cartridge only
*versions in line bodies on request

**Seals**
N = NBR (Standard)
V = FKM (optional)

**Setting**
5° = 0.35 bar (5 PSI)
15° = 1.0 bar (15 PSI)
30° = 2.1 bar (30 PSI)
70° = 4.8 bar (70 PSI)

**Standard models**

<table>
<thead>
<tr>
<th>Name</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV06A-01-C-N-05</td>
<td>2610212</td>
</tr>
<tr>
<td>RV06A-01-C-N-30</td>
<td>2610154</td>
</tr>
</tbody>
</table>

Other types on request

**Line bodies**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
<th>Material</th>
<th>Ports</th>
<th>Pressure</th>
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<tbody>
<tr>
<td>FH062-SB2</td>
<td>3740528</td>
<td>steel, zinc plated</td>
<td>G1/4</td>
<td>420 bar</td>
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<tr>
<td>FH062-AB2</td>
<td>3741297</td>
<td>Alu, anodized</td>
<td>G1/4</td>
<td>245 bar</td>
</tr>
</tbody>
</table>

other line bodies on request

**Seal kits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seal kit-NBR</td>
<td>2610184</td>
</tr>
<tr>
<td>Seal kit-FKM</td>
<td>2610185</td>
</tr>
</tbody>
</table>

**PERFORMANCE**

Measured at 28 mm²/s and T oil = 38°C

---

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cavity</td>
<td>FC06-2</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Tools**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
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<tbody>
<tr>
<td>Twist drill</td>
<td>2582046</td>
</tr>
<tr>
<td>Countersink</td>
<td>2582047</td>
</tr>
</tbody>
</table>
Check Valve
Ball type
with pressure relief function
Cartridge-Minivalve – 350 bar
RV06B-01

Features
- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extend service life
- Combination of two functions in one valve
- Pressure ranges up to 350 bar
- Adjustable under full pressure
- Fast closing
- Protecting the system and the pump before pressure peaks

Specifications
Operating pressure: max. 350 bar
Nominal flow: max. 15 l/min
Pressure ranges (DB):
- 0 up to 125 bar
- 0 up to 210 bar
- 0 up to 350 bar
Cracking pressure (Check function): 0.35 bar
Leakage: leakage-free, < max. 0.35 cm³/min at 75% nominal pressure
Temperature range of operating fluid:
- Min. – 30°C up to max. +100°C
- Min. – 30°C up to max. +60°C
Fluid:
- Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range:
- min. 7.4 mm²/s up to max. 420 mm²/s
Filtration:
- Class 21 / 19 / 16 according to ISO 4406 or cleaner
Installation:
- No orientation restrictions
Materials:
- Valve body: steel with hardened work surfaces
- Ball: hardened steel
- Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C)
- Back-up rings: TPE-E
Cavity:
- FC06-3
Weight:
- 0.027 kg

Function
The check valve RV06B is a direct acting, spring loaded ball valve with integrated pressure relief valve. If there is no flow the spring holds the ball in closed position and blocks therefore flow from port 1 to 2. The check valve opens, if the pressure at port 2 is higher than the pressure at port 1 including the spring force. If the pressures rises in the inlet pipe over the pre-adjusted pressure the relief valve opens to tank. Any pressure at port 3 is additive to the relief pressure setting.
**MODEL CODE**

**Basic model**
Check valve, direct acting

**Type**
01 = Standard

**Body & ports**
C = cartridge only
*versions in line bodies on request

**Seals**
N = NBR (Standard)
V = FKM (optional)

**Pressure ranges**
180 = 0 up to 125 bar (3000 PSI)
300 = 0 up to 210 bar (3000 PSI)
500 = 0 up to 350 bar (5000 PSI)

**Adjustment option**
V = adjustable by tool

**Setting**
none = 50% of max. Pressure
100 = 69 bar (1000 PSI) – factory preset pressure

**Standard models**

<table>
<thead>
<tr>
<th>Name</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV06B-01-C-N-300V</td>
<td>2610236</td>
</tr>
<tr>
<td>RV06B-01-C-N-500V</td>
<td>2610164</td>
</tr>
</tbody>
</table>

Other types on request

**Line bodies**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
<th>Material</th>
<th>Ports</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>FH063-SB2</td>
<td>3740562</td>
<td>steel, zinc plated</td>
<td>G1/4</td>
<td>420 bar</td>
</tr>
<tr>
<td>FH063-AB2</td>
<td>3741286</td>
<td>Alu, anodized</td>
<td>G1/4</td>
<td>245 bar</td>
</tr>
</tbody>
</table>

other line bodies on request

**Seal kits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seal kit-NBR</td>
<td>2610186</td>
</tr>
<tr>
<td>Seal kit-FKM</td>
<td>2610187</td>
</tr>
</tbody>
</table>

**PERFORMANCE**

Measured at 28 mm²/s and T oil = 38°C

**Pressure relief**

$\Delta p$ of check function
Check Valve
Ball type
with pressure relief function
Cartridge-Minivalve – 350 bar
RV06C-01

FEATURES
- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extend service life
- Combination of two functions in one valve
- Pressure ranges up to 350 bar
- adjustable under full pressure
- fast closing
- protecting the system and the pump before pressure peaks
- Pressure relief with damped piston making the valve less prone to vibrations

SPECIFICATIONS
Operating pressure: max. 350 bar
Nominal flow: max. 20 l/min
Pressure ranges (DB):
0 up to 125 bar
0 up to 210 bar
35 up to 350 bar
Cracking pressure (check function): 0,35 bar
Leakage: leakage-free, < max. 0,35 cm³/min at 75% nominal pressure
Temperature range of operating fluid: Min. – 30°C up to max. +100°C
Ambient temperature range: Min. – 30°C up to max. + 60° C
Fluid: Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range: min. 7,4 mm²/s up to max. 420 mm²/s
Filtration: Class 21 / 19 /16 according to ISO 4406 or cleaner
MTTFd: 150 years
Installation: no orientation restrictions
Materials:
- Valve body: steel with hardened work surfaces
- Piston: hardened and ground steel
- Seals: NBR (Standard) / FKM (optional, temperature range -20°C up to +120°C)
- Back-up rings: TPE-E
Cavity: FC06-3
Weight: 0,027 kg

FUNCTION
The check valve RV06C is a direct acting, spring loaded ball valve with integrated pressure relief valve. If there is no flow the spring holds the ball in closed position and blocks therefore flow from port 1 to 2. The check valve opens, if the pressure at port 2 is higher than the pressure at port 1 including the spring force. If the pressures rises in the inlet pipe over the pre-adjusted pressure the relief valve opens to tank. Any pressure at port 3 is additive to the relief pressure setting.
**MODEL CODE**

**Basic model**
Check valve, direct acting

**Type**
01 = Standard

**Body & ports**
C = cartridge only
*versions in line bodies on request

**Seals**
N = NBR (Standard)
V = FKM (optional)

**Pressure range**
180 = 0 up to 125 bar (1800 PSI)
300 = 0 up to 210 bar (3000 PSI)
500 = 35 up to 350 bar (5000 PSI)

**Adjustment option**
V = adjustable by tool

**Setting**
none = 50% of max. Pressure
100 = 69 bar (1000 PSI) – factory preset pressure

**Standard models**

<table>
<thead>
<tr>
<th>Name</th>
<th>Part No.</th>
<th>Material</th>
<th>Ports</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV06C-01-C-N-180V</td>
<td>2610323</td>
<td>steel, zinc plated</td>
<td>G1/4</td>
<td>420 bar</td>
</tr>
<tr>
<td>RV06C-01-C-N-300V</td>
<td>2610325</td>
<td>Alu, anodized</td>
<td>G1/4</td>
<td>245 bar</td>
</tr>
<tr>
<td>RV06C-01-C-N-400V</td>
<td>2610343</td>
<td>other line bodies</td>
<td>on request</td>
<td></td>
</tr>
</tbody>
</table>

**Other types on request**

**Seal kits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seal kit-NBR</td>
<td>2610186</td>
</tr>
<tr>
<td>Seal kit-FKM</td>
<td>2610187</td>
</tr>
</tbody>
</table>

**PERFORMANCE**

Measured at 28 mm²/s and T oil = 38°C

**Pressure relief**

---

**DIMENSIONS**

All dimensions in mm (Inch)
Subject to technical modification

**Cavity**

FC06-3

---

**Tools**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twist drill</td>
<td>2582050</td>
</tr>
<tr>
<td>Countersink</td>
<td>2582051</td>
</tr>
</tbody>
</table>

---

All dimensions in mm (Inch)
Subject to technical modification

HYDAC Fluidtechnik GmbH
Justus-von-Liebig-Str. 5
66280 Sulzbach / Saar
Tel.: 06897 / 509-0
Fax: 06897 / 509-598
Email: flutec@hydac.com
2/2 Solenoid Directional Valve
Poppet type, pilot operated,
normally closed
Cartridge-Minivalve – 350 bar
WS06Z-01

FEATURES
- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components
to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coil easy to exchange and pivotable

SPECIFICATIONS
Operating pressure: max. 350 bar
Nominal flow: max. 20 l/min
Leakage: leakage-free, < max. 0.35 cm³/min at nominal pressure
Temperature range of operating fluid: Min. – 30°C up to max. +100°C
Ambient temperature range: Min. – 30°C up to max. +60°C
Fluid: Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range: min. 7.4 mm²/s up to max. 420 mm²/s
Filtration: Class 21/19/16 according to ISO 4406 or cleaner
MTTFd: 150 years
Installation: no orientation restrictions
Materials: Valve body: steel
- Piston: hardened and ground steel
- Seals: NBR (Standard), FKM (optional, temperature range -20°C up to +120°C)
- Back-up rings: TPE-E
Cavity: FC06-2
Weight: Complete valve: 0.165 kg
- Coil only: 0.088 kg
Electrical data
Type of voltage: DC coil, AC voltage is rectified by a rectifier built-in the plug
Nominal current at 20°C: 984 mA at 12 V DC
- 492 mA at 24 V DC
Voltage tolerance: +/- 15% of Coil voltage
Coil duty rating: 100% continuous up to max.
- 115% of Coil voltage at 60°C ambient temperature
Switching time:
- Energized: approx. 35 ms
- De-energized: approx. 50 ms

FUNCTION
In de-energized mode the valve blocks flow from port 2 to 1.
In the opposite direction the valve piston opens at a pressure differential from approx. 1.8 bar (Check function).
If energized, there is flow from port 2 to 1. A backflow from port 1 to 2 is severely restricted.
MODEL CODE

WS06Z – 01M – C – N – 24 DN

Basic model
Directional poppet valve, pilot operated

Type
01 = Standard
01M = manual override
30 = with protection strainer around port 2

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Coil voltage
0 = without coil (with nut and Seals)
DC: 12 = 12 Volt DC voltage
24 = 24 Volt DC voltage
AC: 115 = 105 Volt DC voltage
230 = 205 Volt DC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600582)

Coil connector (Coil... 32-1329)
DC: DG = DIN Plug to EN175301-803 Form B
DL = 2 leadwires, 450mm long
DN = Deutsch Plug, axial (Type DT04-2P)

Standard models
Code Part No.
WS06Z-01-C-N-0 without coil 2610237
(coil please choose from brochure D 5.155.0 )

*Line bodies

Code Part No. Material Ports Pressure
FH062-SB2 3740528 steel, zinc plated G1/4 420 bar
FH062-AB2 3741297 Alu, anodized G1/4 245 bar
other line bodies on request

Seal kits
Code Part No.
Seal kit-NBR 2610184
Seal kit-FKM 2610185

PERFORMANCE

Measured at 28 mm²/s and T oil = 38°C

All dimensions in inch (mm) Subject to technical modification

Tools

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twist drill</td>
<td>2582046</td>
</tr>
<tr>
<td>Countersink</td>
<td>2582047</td>
</tr>
</tbody>
</table>

All dimensions in mm (Inch) Subject to technical modification

Annotation
The technical information in this brochure are relating to the operating conditions and applications.
At deviant applications and/or operating conditions please contact the technical dept.
Technical information are subject to technical modifications.

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Justus-von-Liebig-Str. 5
66280 Sulzbach / Saar
Tel.: 06897 / 509 -0
Fax: 06897 / 509 -598
Email: flutec@hydac.com
2/2 Solenoid Directional Valve
Poppet type, pilot operated, normally open
Cartridge-Minivalve – 350 bar
WS06Y-01

FUNCTION

In de-energized mode there is flow from port 2 to 1.
If energized, the valve blocks flow from port 2 to 1.
In the opposite direction it opens if the pressure force on the piston is higher than the magnet force (approx. 9 up to 20 bar).

FEATURES
- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coil easy to exchange and pivotable

SPECIFICATIONS
- Operating pressure: max. 350 bar
- Nominal flow: max. 20 l/min
- Leakage: leakage-free, < max. 0.35 cm³/min at nominal pressure
- Temperature range of operating fluid: Min. – 30°C up to max. +100°C
- Ambient temperature range: Min. – 30°C up to max. +60°C
- Fluid: Hydraulic fluid to DIN 51524 T1 + T2
- Viscosity range: min. 7.4 mm²/s up to max. 420 mm²/s
- Filtration: Class 21 / 19 / 16 according to ISO 4406 or cleaner
- MTTFd: 150 years
- Installation: no orientation restrictions
- Materials: Valve body: steel
Piston: hardened and ground steel
Seals: NBR (Standard)
FKM (optional, temperature range -20°C up to +120°C)
Back-up rings: TPE-E
- Cavity: FC06-2
- Weight: Complete valve: 0.165 kg
Coil only: 0.088 kg

Electrical data
- Type of voltage: DC coil, AC voltage is rectified by a rectifier built-in the plug
- Nominal current at 20°C:
  - 984 mA at 12 V DC
  - 492 mA at 24 V DC
- Voltage tolerance: +/- 15% of Coil voltage
- Coil duty rating:
  - 100% continuous up to max.
  - 115% of Coil voltage at 60°C ambient temperature
- Switching time:
  - Energized: approx. 50 ms
  - De-energized: approx. 35 ms
**MODEL CODE**

**WS06Y – 01M – C – N – 24 DN**

**Basic model**
- directional poppet valve, pilot operated

**Type**
- 01 = Standard
- 01M = manual override
- 30 = with protection strainer around port 2

**Body & ports**
- C = cartridge only
*versions in line bodies on request*

**Seals**
- N = NBR (Standard)
- V = FKM (optional)

**Coil voltage**
- 0 = without coil (with nut and Seals)
- DC: 12 = 12 Volt DC voltage
- 24 = 24 Volt DC voltage
- AC: 230 = 205 Volt DC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600582)

**Coil connector (Coil... 32-1329)**
- DC: DG = DIN Plug to EN175301-803 Form B
- DL = 2 leadwires, 450mm long
- DN = Deutsch Plug, axial (Type DT04-2P)

**Standard models**
- Code | Part No.
- WS06Y-01-C-N-0 without coil 2610209
(coil please choose from brochure D 5.155.0)

**Line bodies**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
<th>Material</th>
<th>Ports</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>FH062-SB2</td>
<td>3740528</td>
<td>steel, zinc plated</td>
<td>G1/4</td>
<td>420 bar</td>
</tr>
<tr>
<td>FH062-AB2</td>
<td>3741297</td>
<td>Alu, anodized</td>
<td>G1/4</td>
<td>245 bar</td>
</tr>
</tbody>
</table>

**Seal kits**
- Code | Part No.
- Seal kit-NBR 2610184
- Seal kit-FKM 2610185

**PERFORMANCE**

Measured at 28 mm²/s and T oil = 38°C

**Tools**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twist drill</td>
<td>2582046</td>
</tr>
<tr>
<td>Countersink</td>
<td>2582047</td>
</tr>
</tbody>
</table>

**DIMENSIONS**

All dimensions in inch (mm)
Subject to technical modification

**HYDAC Fluidtechnik GmbH**
Justus-von-Liebig-Str. 5
66280 Sulzbach / Saar
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Fax: 06897 / 599 -598
Email: flutec@hydac.com

Hydraulic technology

The technical information in this brochure are relating to the operating conditions and applications. At deviant applications and/or operating conditions please contact the technical dept. Technical information are subject to technical modifications.
2/2 Solenoid Directional Valve
Spool type, direct acting,
Cartridge-Minivalve – 350 bar
WK06W-01

FEATURES
- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coil easy to exchange and pivotable

SPECIFICATIONS
Operating pressure: max. 350 bar
Nominal flow: max. 10 l/min
Leakage: < max. 90 cm³/min at 207 bar
and 28 mm²/s
Temperature range of operating fluid:
Min. – 30°C up to max. +100°C
Ambient temperature range:
Min. – 30°C up to max. + 60°C
Fluid:
Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range:
min. 7.4 mm²/s up to max. 420 mm²/s
Filtration:
Class 21 / 19 /16 according to ISO 4406 or cleaner
MTTFd:
150 years
Installation:
no orientation restrictions
Materials:
Valve body: steel with hardened work surfaces
Piston: hardened and ground steel
Seals: NBR (Standard)
FKM (optional, temperature range -20°C up to +120°C)
Back-up rings: TPE-E

Electrical data
Type of voltage:
DC coil, AC voltage is rectified by a rectifier built-in the plug
Nominal current at 20°C:
984 mA at 12 V DC
492 mA at 24 V DC
Voltage tolerance:
+/- 15% of Coil voltage
Coil duty rating:
100% continuous up to max.
115% of Coil voltage at 60°C ambient temperature

FUNCTION
In de-energized mode the valve is blocked in both directions.
If energized, the valve opens and allows the flow in both directions.
**MODEL CODE**

**WK06W – 01M – C – N – 24 DN**

Basic model
Directional Spool type, direct acting

**Type**
- 01 = Standard
- 01M = manual override

**Body & ports**
- C = cartridge only
  - *versions in line bodies on request*

**Seals**
- N = NBR (Standard)
- V = FKM (optional)

**Coil voltage**
- 0 = without coil (with nut and Seals)
- DC: 12 = 12 Volt DC voltage
- 24 = 24 Volt DC voltage
- AC: 115 = 115 Volt AC voltage
- 230 = 205 Volt AC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600582)

**Coil connector (Coil... 32-1329)**
- DC: DG = DIN Plug to EN175301-803 Form B
- DL = 2 leadwires, 450mm long
- DN = Deutsch Plug, axial (Type DT04-2P)

**Standard models**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
<th>Material</th>
<th>Ports</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>WK06W-01-C-N-0 without coil</td>
<td>2610182</td>
<td>steel, zinc plated G1/4</td>
<td>420 bar</td>
<td></td>
</tr>
<tr>
<td>FH062-SB2</td>
<td>3740528</td>
<td>Alu, anodized G1/4</td>
<td>245 bar</td>
<td></td>
</tr>
</tbody>
</table>

**Other types on request**

**Line bodies**
- Code | Part No. | Material | Ports | Pressure |
- FH062-AB2 | 3741297 | steel, zinc plated G1/4 | 420 bar |

**Tools**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twist drill</td>
<td>2582046</td>
</tr>
<tr>
<td>Countersink</td>
<td>2582047</td>
</tr>
</tbody>
</table>

**PERFORMANCE**

Measured at 28 mm²/s and T oil = 38°C

---

All dimensions in inch (mm)
Subject to technical modification
2/2 Solenoid Directional valve
Spool type, direct acting, Cartridge-Minivalve – 350 bar
WK06V-01

FEATURES
- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coil easy to exchange and pivotable

SPECIFICATIONS
Operating pressure: max. 350 bar
Nominal flow: max. 15 l/min
Leakage: < max. 90 cm³/min at 207 bar and 28 mm²/s
Temperature range of operating fluid: Min. – 30°C up to max. +100°C
Ambient temperature range: Min. – 30°C up to max. + 60°C
Fluid: Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range: min. 7.4 mm²/s up to max. 420 mm²/s
Filtration: Class 21 / 19 /16 according to ISO 4406 or cleaner
MTTFd: 150 years
Installation: no orientation restrictions
Materials: Valve body: steel with hardened work surfaces
Piston: hardened and ground steel
Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C)
Back-up rings: TPE-E
Cavity: FC06-2
Weight: Complete valve: 0,170 kg
Coil only: 0,088 kg

Electrical data
Type of voltage: DC coil, AC voltage is rectified by a rectifier built-in the plug
Nominal current at 20°C: 984 mA at 12 V DC
492 mA at 24 V DC
Voltage tolerance: +/- 15% of Coil voltage
Coil duty rating: 100% continuous up to max. 115% of Coil voltage at 60°C ambient temperature
Switching time: Energized: approx. 50 ms
De-energized: approx. 35 ms

FUNCTION
In de-energized mode the valve is open in both directions.
If energized, the valve closes and blocks the flow in both directions.
MODEL CODE

WK06V – 01M – C – N – 24 DN

Basic model
Directional Spool type, direct acting

Type
01 = Standard
01M = manual override

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Coil voltage
0 = without coil (with nut and Seals)
DC: 12 = 12 Volt DC voltage
24 = 24 Volt DC voltage
AC: 115 = 105 Volt DC voltage
230 = 205 Volt DC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600582)

Coil connector (Coil... 32-1329)
DC: DG = DIN Plug to EN175301-803 Form B
DL = 2 leadwires, 450mm long
DN = Deutsch Plug, axial (Type DT04-2P)

Standard models
Code | Part No.
--- | ---
WK06V-01-C-N-0 without coil | 2610222
(coil please choose from brochure D 5.155.0 )

Other types on request

*Line bodies
Code | Part No. | Material | Ports | Pressure
--- | --- | --- | --- | ---
FH062-SB2 | 3740528 | steel, zinc plated | G1/4 | 420 bar
FH062-AB2 | 3741297 | Alu, anodized | G1/4 | 245 bar
other line bodies on request

Seal kits
Code | Part No.
--- | ---
Seal kit-NBR | 2610184
Seal kit-FKM | 2610185

PERFORMANCE

Measured at 28 mm²/s and T oil = 38°C
3/2 Solenoid Directional Valve
Spool type, direct acting
Cartridge-Minivalve – 350 bar
WK06C-01

FEATURES
- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coil easy to exchange and pivotable

SPECIFICATIONS
Operating pressure: max. 350 bar
Nominal flow: max. 10 l/min
Leakage: < max. 90 cm³/min at 207 bar and 28 mm²/s
Temperature range of operating fluid: Min. – 30°C up to max. +100°C
Ambient temperature range: Min. – 30°C up to max. +60°C
Fluid: Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range: min. 7,4 mm²/s up to max. 420 mm²/s
Filtration: Class 21 / 19 /16 according to ISO 4406 or cleaner
MTTF<sub>d</sub>: 150 years
Installation: no orientation restrictions
Materials:
- Valve body: steel with hardened work surfaces
- Piston: hardened and ground steel
- Seals: NBR (Standard), FKM (optional, temperature range -20°C up to +120°C)
- Back-up rings: TPE-E
- Cavity: FC06-3
- Weight: Complete valve: 0,175 kg, Coil only: 0,088 kg

Electrical data
Type of voltage: DC coil, AC voltage is rectified by a rectifier built-in the plug
Nominal current at 20°C: 984 mA at 12 V DC, 492 mA at 24 V DC
Voltage tolerance: +/- 15% of Coil voltage
Coil duty rating: 100% continuous up to max. 115% of Coil voltage at 60°C ambient temperature
Switching time:
- Energized: approx. 30 - 60 ms
- De-energized: approx. 20 - 40 ms

FUNCTION
In de-energized mode there is free flow from port 1 to 2 and in the opposite direction. Port 3 is closed.
If energized, the valve allows flow from port 2 to 3 and in the opposite direction. Port 1 is closed.
**MODEL CODE**

**Basic model**
Directional Spool type, direct acting

**Type**

01 = Standard
01M = manual override

**Body & ports**

C = cartridge only

*versions in line bodies on request

**Seals**

N = NBR (Standard)
V = FKM (optional)

**Coil voltage**

0 = without coil (with nut and Seals)
DC: 12 = 12 Volt DC voltage
24 = 24 Volt DC voltage
AC: 115 = 105 Volt DC voltage
230 = 205 Volt DC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600582)

**Coil connector (Coil)... 32-1329**

DC: DG = DIN Plug to EN175301-803 Form B
DL = 2 leadwires, 450mm long
DN = Deutsch Plug, axial (Type DT04-2P)

**Standard models**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
<th>Material</th>
<th>Ports</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>WK06C-01-C-N-0 without coil</td>
<td>2610183</td>
<td>steel, zinc plated G1/4</td>
<td>420 bar</td>
<td></td>
</tr>
<tr>
<td>FH063-SB2</td>
<td>3740562</td>
<td>steel, zinc plated G1/4</td>
<td>420 bar</td>
<td></td>
</tr>
<tr>
<td>FH063-AB2</td>
<td>3741286</td>
<td>Alu, anodized G1/4</td>
<td>245 bar</td>
<td></td>
</tr>
</tbody>
</table>

**Line bodies**

*other line bodies on request

**Seal kits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seal kit-NBR</td>
<td>2610186</td>
</tr>
<tr>
<td>Seal kit-FKM</td>
<td>2610187</td>
</tr>
</tbody>
</table>

**PERFORMANCE**

Measured at 28 mm²/s and T oil = 38°C

---

**DIMENSIONS**

All dimensions in [inch (mm)]
Subject to technical modification

**Tools**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twist drill</td>
<td>2582050</td>
</tr>
<tr>
<td>Countersink</td>
<td>2582051</td>
</tr>
</tbody>
</table>
**4/2 Solenoid Directional Valve**  
**Spool type, direct acting**  
**Cartridge-Minivalve – 350 bar**  
**WK06Y-01**

**FEATURES**
- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coil easy to exchange and pivotable

**SPECIFICATIONS**
- Operating pressure: max. 350 bar  
  max. 10 l/min
- Leak: < max. 100 cm³/min at 207 bar and 28 mm²/s
- Temperature range of operating fluid: Min. – 30°C up to max. +100°C  
  Min. – 30°C up to max. + 60°C
- Fluid: Hydraulic fluid to DIN 51524 T1 + T2  
  min. 7.4 mm²/s up to max. 420 mm²/s
- Viscosity range: min. 7,4 mm²/s up to max. 420 mm²/s
- Filtration: Class 21 / 19 /16 according to ISO 4406 or cleaner
- MTTFd: 150 years
- Installation: no orientation restrictions
- Materials:  
  Valve body: steel with hardened work surfaces  
  Piston: hardened and ground steel  
  Seals: NBR (Standard)  
  FKM (optional, temperature range -20°C up to +120°C)
- Back-up rings: TPE-E  
  FC06-4
- Weight: Complete valve: 0,190 kg  
  Coil only: 0,088 kg

**Electrical data**
- Type of voltage: DC coil, AC voltage is rectified by a rectifier built-in the plug  
  984 mA at 12 V DC  
  492 mA at 24 V DC
- Voltage tolerance: +/- 15% of Coil voltage
- Coil duty rating:  
  100% continuous up to max.  
  115% of Coil voltage at 60°C ambient temperature
- Switching time:  
  Energized: approx. 30 - 60 ms  
  De-energized: approx. 20 - 40 ms

**FUNCTION**
In de-energized mode, the valve allows flow from port 1 to 2 and from 3 to 4 and also in the opposite direction. If energized, the valve allows flow from port 1 to 4 and from 3 to 2 and also in the opposite direction.
**MODEL CODE**

WK06Y – 01M – C – N – 24 DN

**Basic model**
Directional Spool type, direct acting

**Type**
- 01 = Standard
- 01M = manual override

**Body & ports**
- C = cartridge only
- *versions in line bodies on request

**Seals**
- N = NBR (Standard)
- V = FKM (optional)

**Coil voltage**
- 0 = without coil (with nut and Seals)
- DC: 12 = 12 Volt DC voltage
  - 24 = 24 Volt DC voltage
- AC: 115 = 105 Volt DC voltage
  - 230 = 205 Volt DC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600592)

**Coil connector (Coil... 32-1329)**
- DC: DG = DIN Plug to EN175301-803 Form B
  - DL = 2 leadwires, 450mm long
  - DN = Deutsch Plug, axial (Type DT04-2P)

**Standard models**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
<th>Material</th>
<th>Ports</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>WK06Y-01-C-N-0</td>
<td>2610203</td>
<td>steel, zinc plated</td>
<td>G1/4</td>
<td>420 bar</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alu, anodized</td>
<td>G1/4</td>
<td>245 bar</td>
</tr>
</tbody>
</table>

*other line bodies on request*

**Seal kits**

<table>
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<tr>
<th>Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Seal kit-NBR</td>
<td>2610188</td>
</tr>
<tr>
<td>Seal kit-FKM</td>
<td>2610189</td>
</tr>
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</table>

**Toolt**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twist drill</td>
<td>2582057</td>
</tr>
<tr>
<td>Countersink</td>
<td>2582058</td>
</tr>
</tbody>
</table>

**PERFORMANCE**

Measured at 28 mm²/s and T oil = 38°C

**DIMENSIONS**

Cavity

FC06-4

All dimensions in inch (mm)
Subject to technical modification

**HYDAC Fluidtechnik GmbH**
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All dimensions in mm (Inch)
Subject to technical modification
4/3 Solenoid Directional Valve
Spool type, direct acting
Cartridge-Minivalve – 350 bar
WK06E-01

**FEATURES**
- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coils easy to exchange and pivotable

**SPECIFICATIONS**

- **Operating pressure:** max. 350 bar
- **Max. flow:** max. 210 bar at Tank (port 1)
- **Nominal flow:** max. 11 l/min
- **Leakage:** < max. 100 cm³/min at 207 bar and 28 mm²/s
- **Temperature range of operating fluid:** Min. – 30°C up to max. +100°C
- **Ambient temperature range:** Min. – 30°C up to max. +60°C
- **Fluid:** Hydraulic fluid to DIN 51524 T1 + T2
- **Viscosity range:** min. 7.4 mm²/s up to max. 420 mm²/s
- **Filtration:** Class 21/19/16 according to ISO 4406 or cleaner
- **MTTFd:** 150 years
- **Installation:** no orientation restrictions
- **Materials:** Valve body: steel with hardened work surfaces
- **Piston:** hardened and ground steel
- **Seals:** NBR (Standard) FKM (optional, temperature range -20°C up to +120°C)
- **Back-up rings:** TPE-E
- **FC06-4**
- **Weight:** Complete valve: 0.374 kg
- **Electrical data**
  - **Type of voltage:** DC coil, AC voltage is rectified by a rectifier built-in the plug
  - **Nominal current at 20°C:** 984 mA at 12 V DC
  - **492 mA at 24 V DC**
  - **Voltage tolerance:** +/- 15% of Coil voltage
  - **Coil duty rating:** 100% continuous up to max. 115% of Coil voltage at 60°C ambient temperature
  - **Switching time:** Energized: approx. 30 - 60 ms
  - **De-energized:** approx. 20 - 40 ms

In de-energized mode all ports are blocked.
If the coil S1 is energized, there is free flow from port 3 to 4 and from 2 to 1.
If the coil S2 is energized, there is flow from port 3 to 2 and from 4 to 1.
DIMENSIONS

Cavity FC06-4

All dimensions in inch (mm)
Subject to technical modification

MODEL CODE

WK06E - 01M - C - N - 24 DN

Basic model
Directional Spool type, direct acting

Type
01 = Standard
01M = manual override
01A = lockable manual override

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Coil voltage
0 = without coil (with nut and Seals)
DC: 12 = 12 Volt DC voltage
24 = 24 Volt DC voltage
AC: 115 = 115 Volt DC voltage
230 = 205 Volt DC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600582)

Coil connector (Coil... 32-1329)
DC: DG = DIN Plug to EN175301-803 Form B
DL = 2 leadwires, 450mm long
DN = Deutsch Plug, axial (Type DT04-2P)

Standard models
Code Part No.
WK06E-01-C-N-0 without coil 2610190 (coils please choose from brochure D 5.155.0)
Other types on request

*Line bodies
Code Part No. Material Ports Pressure
FH064-SB2 3740589 steel, zinc plated G1/4 420 bar
FH064-AB2 3741315 Alu, anodized G1/4 245 bar
other line bodies on request

Seal kits
Code Part No.
Seal kit-NBR 2610188
Seal kit-FKM 2610189

PERFORMANCE

Measured at 28 mm²/s and T oil = 38°C

Tools
Code Part No.
Twist drill 2582057
Countersink 2582058

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All dimensions in mm (Inch)
Subject to technical modification

Values in the diagrams:
- 1 bar: 15 psi
- 1 psi: 0.069 bar
- 1 l/min: 1.69 gpm
- 1 gpm: 0.58 l/min

Subject to technical modification
**4/3 Solenoid Directional Valve**

**Spool type, direct acting**

**Cartridge-Minivalve – 350 bar**

**WK06G-01**

---

**FEATURES**

- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coils easy to exchange and pivotable

---

**SPECIFICATIONS**

**Operating pressure:** max. 350 bar

**Nominal flow:** max. 7 l/min

**Leakage:** < max. 100 cm³/min at 207 bar and 28 mm²/s

**Temperature range of operating fluid:** Min. – 30°C up to max. +100°C

**Ambient temperature range:** Min. – 30°C up to max. +60°C

**Fluid:** Hydraulic fluid to DIN 51524 T1 + T2

**Viscosity range:** min. 7.4 mm²/s up to max. 420 mm²/s

**Filtration:** Class 21 / 19 /16 according to ISO 4406 or cleaner

**MTTFd:** 150 years

**Installation:** no orientation restrictions

**Materials:**
- Valve body: steel with hardened work surfaces
- Piston: hardened and ground steel
- Seals: NBR (Standard) / FKM (optional, temperature range -20°C up to +120°C)
- Back-up rings: TPE-E

**Cavity:** FC06-4

**Weight:**
- Complete valve: 0.374 kg
- Coil only: 0.088 kg (2x)

---

**FUNCTION**

In de-energized mode the ports 2 and 4 are blocked – whereas there is flow from port 3 to 1 and in opposite direction.

If the coil S1 is energized, there is flow from port 3 to 2 and from 4 to 1.

If the coil S2 is energized, there is flow from port 3 to 4 and from 2 to 1.

---

**Electrical data**

**Type of voltage:**

**Nominal current at 20°C:**
- DC coil, AC voltage is rectified by a rectifier built-in the plug
- 984 mA at 12 V DC
- 492 mA at 24 V DC

**Voltage tolerance:** +/- 15% of Coil voltage

**Coil duty rating:**
- 100% continuous up to max.
- 115% of Coil voltage at 60°C ambient temperature

---

**SYMBOL**

In de-energized mode the ports 2 and 4 are blocked – whereas there is flow from port 3 to 1 and in opposite direction.
**DIMENSIONS**

[Diagram of the cavity FC06-4 with dimensions labeled]

All dimensions in [inch (mm)] Subject to technical modification

**MODEL CODE**

**WK06G – 01M – C – N – 24 DN**

**Basic model**
Directional Spool type, direct acting

**Type**
- 01 = Standard
- 01M = manual override
- 01A = lockable manual override

**Body & ports**
- C = cartridge only
  *versions in line bodies on request

**Seals**
- N = NBR (Standard)
- V = FKM (optional)

**Coil voltage**
- DC: 12 = 12 Volt DC voltage
- AC: 115 = 105 Volt DC voltage
- 230 = 205 Volt DC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600582)

**Coil connector (Coil... 32-1329)**
- DC: DG = DIN Plug to EN175301-803 Form B
- DL = 2 leadwires, 450mm long
- DN = Deutsch Plug, axial (Type DT04-2P)

**Standard models**

**Code** | **Part No.**
--- | ---
WK06G-01-C-N-0 without coil | 2610192
(coils please choose from brochure D 5.155.0)

**Other types on request**

**Line bodies**

**Code** | **Part No.** | **Material** | **Ports** | **Pressure**
--- | --- | --- | --- | ---
FH064-SB2 | 3740589 | steel, zinc plated | G1/4 | 420 bar
FH064-AB2 | 3741315 | Alu, anodized | G1/4 | 245 bar

*other line bodies on request

**Seal kits**

**Code** | **Part No.**
--- | ---
Seal kit-NBR | 2610188
Seal kit-FKM | 2610189

**Tools**

**Code** | **Part No.**
--- | ---
Twist drill | 2582057
Countersink | 2582058

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**PERFORMANCE**

**Measured at 28 mm²/s and T oil = 38°C**
4/3 Solenoid Directional Valve
Spool type, direct acting
Cartridge-Minivalve – 350 bar
WK06H-01

FEATURES
- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coils easy to exchange and pivotable

SPECIFICATIONS
Operating pressure: max. 350 bar
Nominal flow: max. 210 bar at Tank (port 1)
Leakage: max. 9 l/min
< max. 100 cm³/min at 207 bar and 28 mm²/s
Temperature range of operating fluid: Min. – 30°C up to max. +100°C
Ambient temperature range: Min. – 30°C up to max. +60°C
Fluid: Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range: min. 7.4 mm²/s up to max. 420 mm²/s
Filtration: Class 21/19/16 according to ISO 4406 or cleaner
MTTFd: 150 years
Installation: no orientation restrictions
Materials: Valve body: steel with hardened work surfaces
Piston: hardened and ground steel
Seals: NBR (Standard)
FKM (optional, temperature range -20°C up to +120°C)
Back-up rings: TPE-E
Cavity: FC06-4
Weight: Complete valve: 0.374 kg
Coil only: 0.088 kg (2x)

Electrical data
Type of voltage: DC coil, AC voltage is rectified by a rectifier built-in the plug
Nominal current at 20°C: 984 mA at 12 V DC
492 mA at 24 V DC
Voltage tolerance: +/- 15% of Coil voltage
Coil duty rating: 100% continuous up to max. 115% of Coil voltage at 60°C ambient temperature
**MODEL CODE**

**DIMENSIONS**

**Cavity**

**FC06-4**

**PERFORMANCE**

Measured at 28 mm²/s and T oil = 38°C

**Tools**

<table>
<thead>
<tr>
<th>Code</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twist drill</td>
<td>2582057</td>
</tr>
<tr>
<td>Countersink</td>
<td>2582058</td>
</tr>
</tbody>
</table>

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Email: flutec@hydac.com
FEATURES
- All exposed surfaces corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Coils easy to exchange and pivotable

SPECIFICATIONS
Operating pressure: max. 350 bar
Nominal flow: max. 11 l/min
Leakage: < max. 100 cm³/min at 250 bar and 34 mm²/s
Temperature range of operating fluid: Min. – 30°C up to max. +100°C
Ambient temperature range: Min. – 30°C up to max. +60°C
Fluid: Hydraulic fluid to DIN 51524 T1 + T2
Viscosity range: min. 7.4 mm²/s up to max. 420 mm²/s
Filtration: Class 21 / 19 / 16 according to ISO 4406 or cleaner
MTTFd: 150 years
Installation: no orientation restrictions
Materials: Valve body: steel with hardened work surfaces
Piston: hardened and ground steel
Seals: NBR (Standard) FKM (optional, temperature range -20°C up to +120°C)
Back-up rings: TPE-E

Cavity: FC06-4
Weight: Complete valve: 0.374 kg
Coil only: 0.088 kg (2x)

Electrical data
Type of voltage: DC coil, AC voltage is rectified by a rectifier built-in the plug
Nominal current at 20°C: 984 mA at 12 V DC
492 mA at 24 V DC
Voltage tolerance: +/- 15% of Coil voltage
Coil duty rating: 100% continuous up to max. 115% of Coil voltage at 60°C ambient temperature

FUNCTION
In de-energized mode the ports 2, 4 and 1 are connected, while port 3 is blocked.
If the coil S1 is energized, there is flow through the valve from port 3 to 4 and from 2 to 1.
If the coil S2 is energized, there is flow from port 3 to 2 and from 4 to 1.
DIMENSIONS

Cavity
FC06-4

MODEL CODE

WK06J – 01M – C – N – 24 DN

Basic model
Directional Spool type, direct acting

Type
01 = Standard
01M = manual override
01A = lockable manual override

Body & ports
C = cartridge only
*versions in line bodies on request

Seals
N = NBR (Standard)
V = FKM (optional)

Coil voltage
0 = without coil (with nut and Seals)
DC: 12 = 12 Volt DC voltage
24 = 24 Volt DC voltage
AC: 115 = 115 Volt AC voltage
230 = 230 Volt AC voltage (at AC voltage plug with suppressor diode necessary Mat. 2600582)

Coil connector (Coil... 32-1329)
DC: DG = DIN Plug to EN175301-803 Form B
DL = 2 leadwires, 450mm long
DN = Deutsch Plug, axial (Type DT04-2P)

Standard models
Code | Part No.
--- | ---
WK06J-01-C-N-0 without coil | 2610191
(coils please choose from brochure D 5.155.0)

Other types on request

*Line bodies
Code | Part No. | Material | Ports | Pressure
--- | --- | --- | --- | ---
FH064-SB2 | 3740589 | steel, zinc plated G1/4 | G1/4 | 420 bar
FH064-AB2 | 3741315 | Alu, anodized G1/4 | G1/4 | 245 bar

other line bodies on request

Seal kits
Code | Part No.
--- | ---
Seal kit-NBR | 2610188
Seal kit-FKM | 2610189

PERFORMANCE

Measured at 28 mm²/s and T oil = 38°C
Coils for Minivalves
(for solenoid operated directional valves)
Type 32-1329
for following valves:
- WS06Z
- WS06Y
- WK06W
- WK06C
- WK06Y
- WK06E
- WK06G
- WK06H

FEATURES-
- Maximal force at minimal space requirement,
  by perfect wound coil - maximal copper : avoids damages of the insulation of the wires (breakdown by short-circuits)
- Fully closed coil
  internal coil sealing avoids humidity and short-circuits in the winding
- Designed for 100% coil duty rating
  at Imax and ambient temperatures from −20° up to +60°C
- Small energy consumption
  by optimal design of force – energy ratio
- High mechanical resistance,
  by zinc plated steel cover
- High thermal stability,
  to U.L. class N (180°C)
- Standardized 3 different electrical connectors
  with IP ratings IP65, IP67 and IP6K9K
  DIN/EN Plug (G) IP65 Form B, leadwires (L) IP65/IP67/IP6K9K,
  Deutsch Plug (N) IP65/IP67/IP6K9K
  others on request
- Mounting direction optional,
  by symmetrical coil design
- Coil dimension = typification
  Type 32-1329 = 32mm high (13 mm inside Ø, 29 mm outside Ø)
- Class UL 583 permitted coils available on demand

SPECIFICATIONS
Coil duty rating: 100% continuous up to max.
115% of Coil voltage at max. 60° C ambient temperature
Max. permitted temperature at coil: 160° C
Power intake: 12 W at Imax and 20° C coil temperature
Windings: to U.L. class N (180°C)
Outer shell: steel, zinc plated
Plug socket: Polyamide, black
(All data are valid for a coil mounted on valve)
In general the coil is produced as DC coil.

**MODEL CODE**

**Basic model**

**Coil voltage**
- 12 V DC
- 24 V DC
- 105 V DC (Only Connector type DG)
- 205 V DC (Only Connector type DG) (at AC voltage)
  Plug with suppresser diode necessary Mat. 2600582

**Type of voltage**
- D = DC voltage DC, directional valve

**Coil connectors**
- G = Plug to EN175301-803 Form B, IP rating IP65
- L = 2 leadwires, 0.75mm², 450mm (18") long
  IP rating IP65/IP67/IP6K9K
- N = Deutsch Plug, 2-poles, (DT04-2P) IP rating IP65/IP67/IP6K9K
  Other coil connectors on request

**Variation (depending on connector)**
- omission = Standard
- 01, 02... = e. g. suppresser diode, different cable lengths, etc...
  others on request

**Typification**
- 32-1329 = main measures (Height, inner diameter, outer diameter)

The model code only serves for your information, available products see chart.

DIN plug according to EN 175-803
Form B for:
Connection to DC power
Part. No. 2600570

Connection to AC power
Part. No. 2600582
with integrated rectifier

**Codes and corresponding Part No’s.**

<table>
<thead>
<tr>
<th>Nominal voltage (Volt)</th>
<th>Nominal Coil power (Watt)</th>
<th>Nominal Resis-</th>
<th>Nominal current (Amp.)</th>
<th>Part No’s for connector</th>
<th>(D)</th>
<th>(G)</th>
<th>(L)</th>
<th>(N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 V DC</td>
<td>12</td>
<td>12,2</td>
<td>0,98</td>
<td>2610160</td>
<td>2610161</td>
<td>2610151</td>
<td>2610149</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>with suppresser diode</td>
<td>2610268</td>
<td>2610267</td>
<td>2610210</td>
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</tr>
<tr>
<td></td>
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<td>2610161</td>
<td>2610162</td>
<td>2610150</td>
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</tr>
<tr>
<td>115 V AC*</td>
<td>12</td>
<td>980</td>
<td>0,11</td>
<td>2610156*</td>
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</tr>
<tr>
<td>230 V AC*</td>
<td>12</td>
<td>3700</td>
<td>0,06</td>
<td>2610159*</td>
<td>--</td>
<td>--</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*If using AC voltage a plug (Part no. 2600582) with rectifier is necessary
Other connectors on request.

**Annotation**

The technical information in this brochure are relating to the operating conditions and applications. At deviant applications and/or operating conditions please contact the technical dept. Technical information are subject to technical modifications.

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