OPERATION

This HIC reverses flow to the fan motor to reverse fan direction. It includes a DV15-P5-FD open transition spool valve to reduce pressure spikes during reversals. Internal and external piloting options are available. The HIC trims the maximum motor torque by absorbing pressure spikes at the work ports. An anti-cavitation feature allows additional flow to the motor when the motor over-runs the pump.

APPLICATIONS

This HIC can be used for fan reversal in circuits using a variable pump. Use this HIC for mobile equipment such as wheel loaders for purging (de-clogging) coolers and radiators to prevent overheating and increase cooling system efficiency. A drain port is included for motor case drain.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated pressure</td>
<td>210 bar [3045 psi]</td>
</tr>
<tr>
<td>Flow range - RFDE-40-000</td>
<td>10 - 40 l/min [2.6 - 10.5 US gal/min]</td>
</tr>
<tr>
<td>Flow range - RFDE-80-000</td>
<td>20 - 80 l/min [5.3 - 21.1 US gal/min]</td>
</tr>
<tr>
<td>Weight</td>
<td>3.8 kg [8.37 lb]</td>
</tr>
<tr>
<td>Valves</td>
<td>DV15-P5-24-FD, SVP08-NC, PVLP</td>
</tr>
<tr>
<td>Minimum shift pressure</td>
<td>2 bar [29 psi]</td>
</tr>
<tr>
<td>Robust Coil (Standard)</td>
<td>R13 16 Watt (IP69K)</td>
</tr>
<tr>
<td>Diode (Optional)</td>
<td>Bi-directional</td>
</tr>
</tbody>
</table>

PERFORMANCE CURVE

![Pressure Drop Graph]

- 26 cSt [121 SUS] hydraulic oil @ 50°C [122°F]
Fan Drive HICs Catalog
Reversing Control
RFDE-40-000 & RFDE-80-000

DIMENSION DRAWING

EXAMPLE CIRCUITS

Internal Pilot (00)  
External Pilot (E)

ORDERING INFORMATION

RFDE - 80 - 000 - R12D - DE - NP - 250 - E - 12S

Pilot to Shift:  
00: Internal Pilot  
E: External Pilot

Order Code | Parts
---|---
6B | 3/4 BSP, AL
12S | #12 SAE, AL

Coil Voltage & Termination

<table>
<thead>
<tr>
<th>Voltage Description</th>
<th>Termination Description</th>
<th>Solenoid Valve: Robust Coil (R13) Code</th>
<th>IP Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 VDC</td>
<td>Deutsch</td>
<td>R12D - DE</td>
<td>IP68K</td>
</tr>
<tr>
<td></td>
<td>Deutsch with Diode</td>
<td>R12D-DEDB</td>
<td>IP68K</td>
</tr>
<tr>
<td>24 VDC</td>
<td>Deutsch</td>
<td>R24D - DE</td>
<td>IP68K</td>
</tr>
<tr>
<td></td>
<td>Deutsch with Diode</td>
<td>R24D-DEDB</td>
<td>IP68K</td>
</tr>
</tbody>
</table>

Flow Capacity
- 40: 40 LPM [10.5 GPM]
- 80: 80 LPM [21.7 GPM]

00: No Proportional Relief Valve, Variable Pump Circuit

Dimensions mm [in]

Shock valve setting (Keep at least 25 bar higher than maximum control pressure)

- 80 bar [1160 psi]
- 160 bar [2325 psi]
- 100 bar [1450 psi]
- 210 bar [3045 psi]
- 125 bar [1813 psi]
- 230 bar [3335 psi]
- 150 bar [2175 psi]
- 240 bar [3480 psi]
- 175 bar [2538 psi]
- 260 bar [3335 psi]