OPERATION

This HIC regulates fan speed by controlling pressure drop across the fan motor. It operates in a normally closed configuration in the absence of an electrical signal. The 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. This HICs 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 includes an integrated proportional relief valve to modulate fan speed in circuits using a fixed pump. It can also be used for fan reversal. 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-PRV</td>
<td>10 - 40 l/min [2.6 - 10.5 US gal/min]</td>
</tr>
<tr>
<td>Flow range - RFDE-80-PRV</td>
<td>20 - 80 l/min [5.3 - 21.1 US gal/min]</td>
</tr>
<tr>
<td>Weight</td>
<td>4.0 kg [9.0 lb]</td>
</tr>
<tr>
<td>Valves</td>
<td>DV15-PS-24-FD, SVP08-NC, PRV10-IS2, PVLP</td>
</tr>
<tr>
<td>Minimum pilot 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 (Not available with PRV10-IS2) M19P 22 Watt (IS2) (IP69K)</td>
</tr>
</tbody>
</table>

PERFORMANCE CURVES

- Pressure Drop
- Pressure Vs Current
- Relief Pressure Vs flow
EXAMPLE CIRCUITS

Internal Pilot (00)

External Pilot (E)

ORDERING INFORMATION

RFDE-40-PRV & RFDE-80-PRV

Dimensions mm [in]

Reversing Fan Drive, Extended Program

Flow Capacity

40: 40 LPM (11,0 GPM)
80: 80 LPM (22,1 GPM)

PV: Proportional Valve, Fixed Pump Circuit

CAV: PRV replaced by cavity plug.

 Coil Voltage & Termination

Termination Description

Terminations

Sub-Assist

Termination

(193) Codes

IP Rating

12 VDC

Deutsch / Deutsch*  
R12D-DE  
P193K

Deutsch with Diode / Deutsch*  
R12D-D2DB  
P193K

24 VDC

Deutsch / Deutsch*  
R24D-DE  
P193K

Deutsch with Diode / Deutsch*  
R24D-D2DB  
P193K

* Proportional Relief Valve (PRV) coil #105P only available with Deutsch termination

Voltage Description

Proportional Relief Setting

Order Code  
Pilot to Shift:

Port

6B  
E: Internal Pilot

125  
W: External Pilot

125 bar [1800 psi]

150 bar [2200 psi]

180 bar [2640 psi]

Proportional Relief Setting

F: 50 bar [725 psi]

G: 150 bar [2200 psi]

H: 150 bar [2200 psi]

I: 180 bar [2600 psi]

M: 180 bar [2600 psi]

N: 210 bar [3000 psi]

O: 250 bar [3600 psi]

P: 250 bar [3600 psi]

Q: 300 bar [4400 psi]

R: 300 bar [4400 psi]