DESCRIPTION
The HFD hydraulic block controls the cooling fan speed, modulating the supply pressure to the fan motor. By actuating the Pilot Operated Directional Valve, the oil flow to the motor is reversed, permitting the de-clogging of the cooling pack, increasing its efficiency and avoiding over-heating.

FEATURES
- Best-in-Class Pressure Drop (considering the compact overall dimensions).
- Normally Closed Proportional Pressure Relief valve EE-PRB (RV) - the supply pressure decreases by increasing the current; if the current goes to zero, the fan speed goes to max (fail safe).
- Reversing Pilot Valve IP-DAR43 (EV1) - Controllable both On/Off and Proportional.
- Reversing Directional Valve - special design for soft reversing without anti-shock valves to protect the motor from pressure peaks.
- Anti-cavitation Check on the P-line (ACV).
- External pilot option (from Port M).
- Version without Proportional Pressure Relief Valve available for application with Variable Displacement Pump (contact Tecnord/Delta Power for details).

PERFORMANCE CURVES

PRESSURE DROP P->A->B->T
Hydr.Oil 26cSt [121 SSU] @ 40°C [104°F]

PRESSURE vs CURRENT (RV)
Hydr.Oil 26cSt [121 SSU] @ 40°C [104°F] – 12V Coil

VALVE SPECIFICATIONS

Nominal Flow
A version - 20 GPM (40 LPM)
B version - 40 GPM (80 LPM)
Rating Operated Pressure
3650 PSI (250 bar)
Minimum Pressure to pilot
A version - 5 bar
B version - 10 bar
 Coil Voltage
12V/24V
PWM Dither
150Hz
Coil Termination
Deutsch DT04-2P
Fluid Temperature Range
5° to 220°F (-15° to +105°C)
Viscosity Range
3-650 cSt
Oil Filtration Degree
18/15 (ISO 4406)
Weight
12 lbs (5.8 kg)

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**Combining the HFD hydraulic block and MMS-1012-FD Controller, Tecnord/Delta Power can provide to OEMs a complete electro-hydraulic system to control the Fan Motor.**

**FEATURES**
- Up to 3 Temperature Inputs
- Up to 2 Digital Inputs (Switches)
- 2x PWM Output
- 3x ON/OFF Outputs
- PC-programmable
- IP67

**FLOW RANGE**
- 20 GPM (40 LPM) A
- 40 GPM (80 LPM) B

**SEALS**
- V0: Viton

**PRESSURE RANGE**
- 65-2200 PSI (5-150 bar) A
- 65-3650 PSI (5-250 bar) B

**PRESSURE SETTING**
- XXX Setting in BAR

**CONTROL TYPE**
- P: Proportional Relief
- 00: None

**VOLTAGE**
- 12 VDC
- 24 VDC

**COIL TERMINATION**
- Deutsch DT04-2P
- Consult factory for alternatives

**PORTS**
- 1/2" BSP
- #10 SAE

**DIMENSIONS**

**HYDRAULIC INTEGRATED CIRCUITS**

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