Thermal Transfer Products is now

MAGHEX
FAN CONTROLLER
ON BOARD ELECTRONIC OIL COOLING

Compact Programmable
Fan Controller and Sensor

We COOL what you POWER
This combined sensor and controller is designed to mount directly to the heat exchanger. It provides accurate temperature control by cycling the electric cooling fan to maintain desired oil temperature. A single housing reduces wiring and mechanical installation. The MAGHEX magnetic wand is used to set up and program the sensor. Not needed for operation. LEDs indicate the oil temperature setting.

**Features**
- Easy installation and integration into MA Series (any SAE#8 port or cavity).
- Creates a simple drive circuit with just a few wires and minimal programming.
- Low cost alternative to complex control systems.
- Utilize built-in temperature sensor to activate the fan based upon current set point.
- Capable of providing on board programming & status without the additional component requirements.
- 12 or 24 volt DC operation up to 30 amps.
- Temperature sensor and operation controller in single aluminum housing.
- Select from 20 temperature settings from 100 to 200°F (38 to 93°C)
- Mounts directly to the cooler.
- Connector to fan is included and pre-wired.
- Solid-state design, no moving parts, fully sealed microprocessor/FET design.
- Shuts off 7 degrees below set point.
- Improved circuitry to accommodate higher amperage applications.
- Housing is used as a heat sink for internal components.
- Automatic low voltage shut down.
- Proportional Speed Control (Brushless version only)

**Specifications**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Voltage</td>
<td>12 or 24 VDC Systems</td>
</tr>
<tr>
<td>Min/Max Voltage</td>
<td>9 VDC / 32 VDC</td>
</tr>
<tr>
<td>Current Rating</td>
<td>30 AMPS</td>
</tr>
<tr>
<td>Switch Type</td>
<td>Normally open, high side</td>
</tr>
<tr>
<td>Ambient Operating Temperature</td>
<td>-40° to +185°F (-40° to +85°C)</td>
</tr>
<tr>
<td>Measurement Temperature Range</td>
<td>100°F to 200°F (38 to 93°C)</td>
</tr>
<tr>
<td>Current Draw</td>
<td>20 mA</td>
</tr>
<tr>
<td>Setpoint Selections</td>
<td>20 set points in 5 degree increments from 100°F to 200°F (38 to 93°C)</td>
</tr>
<tr>
<td>Selection method</td>
<td>Magnetic programming wand</td>
</tr>
<tr>
<td>Enclosure Rating</td>
<td>IP69K</td>
</tr>
<tr>
<td>Sealed Housing</td>
<td>High-grade Automotive Potting Compound</td>
</tr>
<tr>
<td>Housing Material</td>
<td>Anodized Aluminum</td>
</tr>
<tr>
<td>Weight</td>
<td>Approx 8 oz. (.23 kg) incl. wire</td>
</tr>
<tr>
<td>Mounting</td>
<td>#8 SAE Thread</td>
</tr>
<tr>
<td>Fan Connector</td>
<td>2 Conductor Receptacle</td>
</tr>
</tbody>
</table>

**Single or Dual Fan Controller**

This sensor will drive one single fan or two dual fans based on 20 adjustable set points in 5 degree increments from 100 to 200°F (38 to 93°C).

**Installation**

1. Insert controller sensor into #8 SAE sensor port on cooler.
2. Connect controller to DC fan (see wire diagram).
3. Provide 30 amp slow fused power to the fan.
4. Connect 2 amp fused power to controller (see wire diagram).
5. Use MAGHEX Programming Wand to set controller to desired temperature.

**PWM Variable Fan Controller**

This sensor will drive one PWM fan based on 20 adjustable set points in 5 degree increments from 100 to 200°F (38 to 93°C). There must be a minimum of 20 degrees between the two set points (20-100% ramp).

**Schematic**

Schematic is for the single fan version

[Diagram of PWM Variable Fan Controller]

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