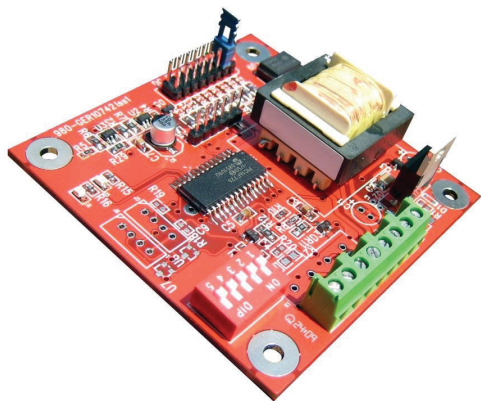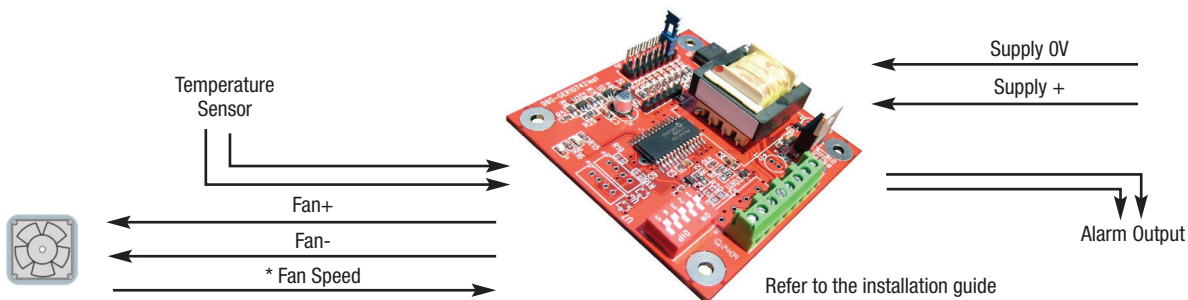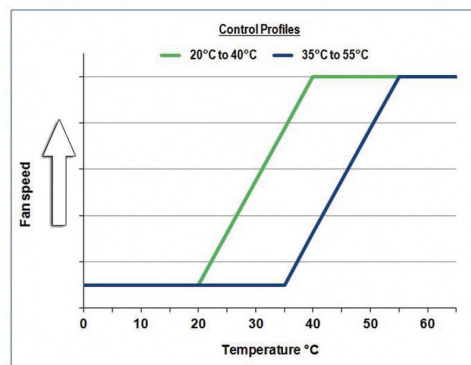# DC Temperature Controller

The DC temperature controller provides closed loop, temperature sensitive speed control for ebm-papst 2-wire and 3-wire DC fans. The controller regulates the electrical power supplied to the fan to maintain optimum performance and reliability.

The controller regulates fan speed between 0% and 100% against the selected temperature profile and also incorporates a combined fan fail, sensor fail and over-temperature alarm.

**Note:** Due to the variations in motor electronics, a small number of mainly high speed fans may not work correctly with this controller.

| Part Number | Temperature Profile °C | Supply Voltage VDC | Ambient temperature °C | Max Humidity % RH | Alarm Output | Width mm | Length mm | Height mm |
|---|---|---|---|---|---|---|---|---|
| CDC122055UC-000 | 20-40 / 35-55 | 12 | -20...+75 | 95 | Open Collector | 72.4 | 71.1 | 35 |
| CDC122055UR-000 | 20-40 / 35-55 | 12 | -20...+75 | 95 | Relay | 72.4 | 71.1 | 35 |
| CDC242055UC-000 | 20-40 / 35-55 | 24 | -20...+75 | 95 | Open Collector | 72.4 | 71.1 | 35 |
| CDC242055UR-000 | 20-40 / 35-55 | 24 | -20...+75 | 95 | Relay | 72.4 | 71.1 | 35 |
| CDC482055UC-000 | 20-40 / 35-55 | 48 | -20...+75 | 95 | Open Collector | 72.4 | 71.1 | 35 |
| CDC482055UR-000 | 20-40 / 35-55 | 48 | -20...+75 | 95 | Relay | 72.4 | 71.1 | 35 |

- DIP- switch selection for:
  - Temperature profile
  - Minimum fan speed
  - Soft start
- Alarm output
  - Fan failure*
  - Over-temperature
  - Sensor failure
- Supplied complete with 2m NTC temperature sensor
- Up to 17W total fan load



Control Profiles

— 20°C to 40°C   — 35°C to 55°C

Fan speed / Temperature °C



Temperature Sensor

Fan+
Fan-
* Fan Speed

Supply 0V
Supply +

Alarm Output

Refer to the installation guide for wiring instructions

*3-wire fans only

ebmpapst