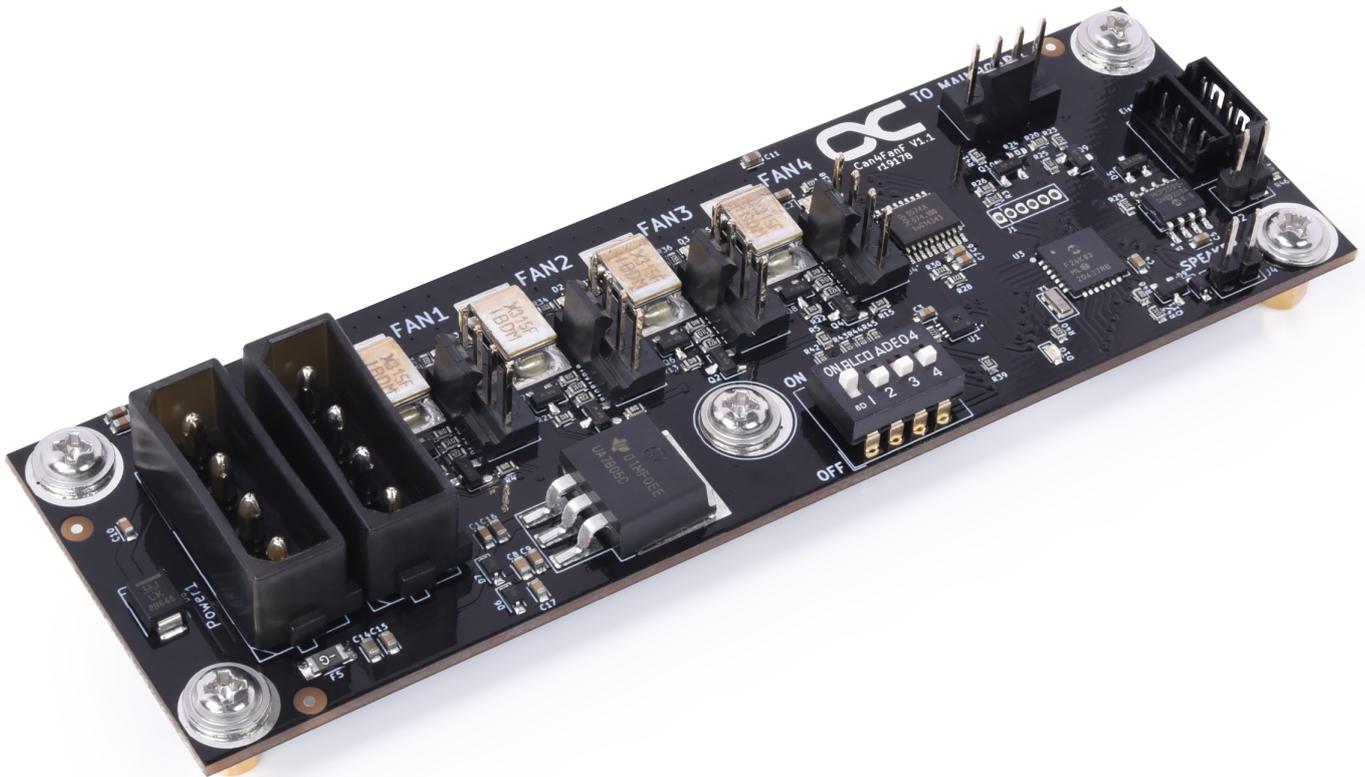


Alphacool ES Guardian 4Port Powerfan Hub

Alphacool article number: 26158

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Quick Info

Server and industrial fans have an enormously high power consumption due to their special requirements. For this reason, they can usually only be connected directly to the power supply unit, as the existing connections on the standard mainboards cannot provide the power needed. The problem is that the function of the fans cannot be checked, monitored or controlled via the mainboard. Therefore, Alphacool offers the ideal server solution for industrial fans with the ES Guardian 4Port Powerfan Hub.

- Enables easy monitoring & control of industrial fans
- Simple & flexible mounting in the server case
- Functionally expandable when using the CAN-Bus connections

Scope of delivery

1x Alphacool ES Guardian 4Port Powerfan Hub
1x Mainboard connection cable
1x 1x Power - connection cable
10x M3x4mm screws
5x M3x6mm spacer

Technical data

L x W x H	120 x 38 x 18mm
Power supply (connection)	2x 4-pin Molex connection via power supply unit
Supply voltage	12V DC
Continuous current	12A at 12V
Maximum current at 12V	16A
Connection options	4x 4-pin PWM fan 1x 4-pin PWM mainboard 2x 4-pin CAN-Bus 1x speaker
Type power supply cable	4-pin Molex/LUMBERG 1614_20
Length power supply cable	110mm
Type mainboard cable	4-Pin PWM
Length mainboard cable	400mm
Control Monitoring	DIP switch (4-way on/off)

Download links

Manual	26158_Alphacool_ES_Guardian_4Port_Powerfan_Hub_Manual.pdf
Product pictures	26158_Alphacool_ES_Guardian_4Port_Powerfan_Hub_pics.zip

Packaging dimensions per unit

L x W x H	160 x 90 x 25 mm
Weight	97 g

Other data

Certificates	CE, FC, RoHS
EAN	4250197261586
Customs code	8471500000

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How does it work?

The ES Guardian 4Port Powerfan Hub can be placed anywhere in the case using M3x4mm screws and M3x6mm spacers (see mounting example) and connects directly to the power supply using the included power cable. In case the fans used require more than 1.5A (18W) per fan, an additional power connector is provided. It offers the option to connect 4 fans via 4-pin PWM. Finally, the Powerfan Hub has to be connected to the mainboard via 4-pin PWM. Once these steps are done, the 4 fans can be monitored and the speeds can be read out.

Stand-alone operation

The ES Guardian 4Port Powerfan Hub has a 4-way DIP switch. The switch allows to activate or deactivate the monitoring of the fans individually. The speed signal (RPM) is passed from the first active fan to the mainboard via the 4-pin PWM connector. If a monitored fan is defective, no RPM signal is forwarded to the mainboard. If the mainboard supports the corresponding function, an error message can be issued.

Full control

The Powerfan Hub has a speaker port that can be used to connect a piezo buzzer or standard PC speaker. This way, an audible warning signal can also be issued in the event of a fan failure. Control LEDs on the fan connectors also allow visual monitoring.

CAN-Bus connection *

Using the Can connections adds more functionality:

- each fan can be controlled separately
- Temperature and humidity can be read in real time
- Display temperature control and temperature zones
- operating hours counter
- for later stand-alone operation, the control curve for each fan can be saved as a preset

(* The additional functionality is however bound to the use of a corresponding CAN-Bus Controller and the associated software!)

Drawing

