

6.7.3 Air Deflector/Filter Unit

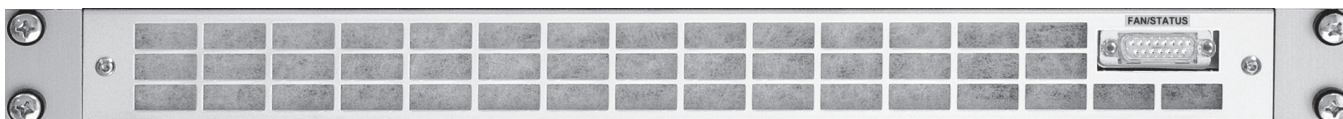
A949.0599



If a D21m I/O frame has a power dissipation of less than 80 W, air deflector/filter units should be used on top of and below the frame. For frames dissipating more power, an air deflector/filter unit should be used on top of the frame, combined with a fan unit (see below) at its bottom. If space is available, a second air deflector/filter unit may be used below the fan unit, increasing the air intake cross-section and thus improving the cooling efficiency. For more information on cooling and guidelines for power dissipation estimation refer to chapter 1.2.2, paragraph ‘thermal considerations’.

6.7.4 Fan Unit

A949.0597



In cases where the power dissipation of a D21m I/O frame exceeds 80 W, active cooling is imperative. If no cooling system for the whole rack is used, this 1U fan unit is required underneath the D21m frame. Seven fans draw air in from the front (filtered) and from the bottom (unfiltered) and blow it out upward. The bottom is open and allows installing an additional air deflector/filter unit underneath the fan unit as described above, increasing the air intake cross-section. In most cases, however, closing the fan unit’s bottom with a piece of metal sheet is sufficient.

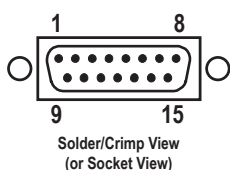
For power supply to the fans and fan status monitoring, two connectors are provided, one at the front, the second at the rear of the unit. They are connected in parallel so that either one can be used, depending on the application. If any of the fans should have a short or open circuit, the alarm signal is triggered.

A 15-pin D-type cable (order no. C089.201167) for connection to the primary PSU is required.

Please note that currently the fan monitoring is implemented for the use of the fan unit within an SCore Live only.

For more information on cooling as well as guidelines for power dissipation estimation refer to chapter 1.2.2, paragraph ‘thermal considerations’.

Pin Assignment



FAN/STATUS (15pin D-type, male, UNC 4-40 thread)

Pin	Signal	Pin	Signal
1	+V _{cc} (+15-24 V)	9	GND
2	n.c.	10	n.c.
3	GND	11	reserved (NTC)
4	n.c.	12	n.c.
5	Alarm relay + (open collector pulling up to V _{cc} if active)	13	GND
6	n.c.	14	n.c.
7	GND	15	reserved (Alarm LED+)
8	n.c.		