

V 1.2

Manual



DNeT IPC 5/100

Cooling

The heat sink with integrated fan mounted to the rear side of the DNeT IPC 5/100 must not be obstructed at the intake or outlet.



If the DNeT IPC 5/100 has no chance to take in fresh cool air, this can lead to overheating and to a destruction of the device.

Please observe the following when installing the DNeT IPC 5/100.

The installation environment must not lead to a closed system in which the released cooling air is immediately sucked back in.

The maximum permissible ambient temperature for the whole system must be observed.

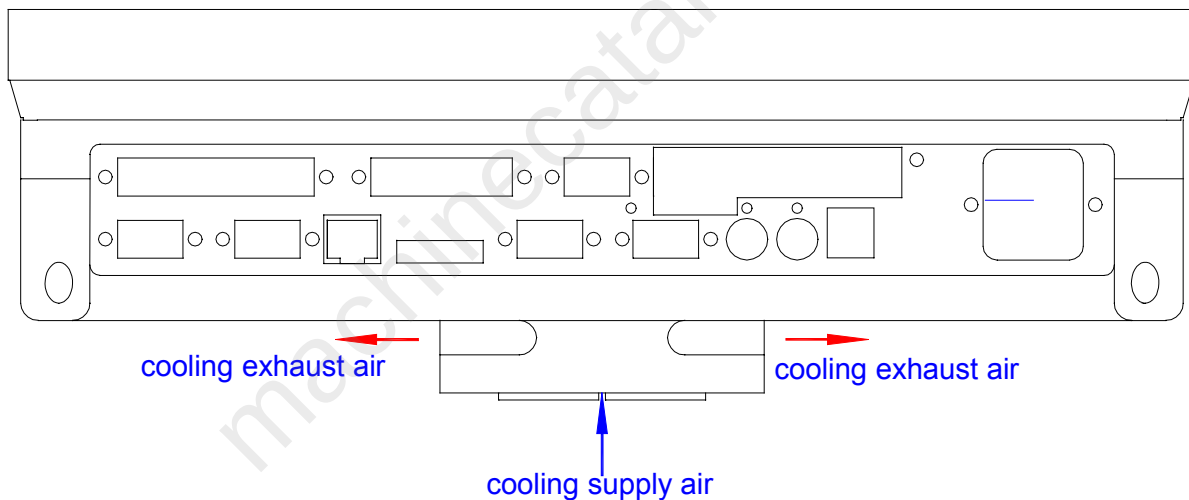


Figure 2b: Air stream on the fan of the DNeT IPC 5/100

Parallel interfaces

General information

In the standard version the DNeT IPC 5/100 is equipped with a parallel interface.

Resources

The resources of the parallel interface are firmly assigned by the PC-architecture and are automatically administered via the BIOS. The resources can be freely defined via the BIOS.

The standard resources for parallel interfaces are:

- LPT1: Address 0x378x-0x37F (hexadecimal), Interrupt IRQ7
- LPT2: Address 0x278 - 0x27F (hexadecimal), Interrupt IRQ5

Printer with parallel interface

Any printer with parallel interface can be connected to the DNeT IPC 5/100.

IPCMSTCH for analog touch panels (DOS)

If you work with an analog touch panel, the DNeT IPC 5/100 requires the driver IPCMSTCH Version 3.50. This driver was developed for operation under MS-DOS and represents the software interface to the analog touch panel.

With this memory-resident program an 8x8 Matrix touch is emulated.

The same key codes are generated similar to using an 8x8 Matrix touch with the driver IPCTCH.

	Do not load the ICMSTCH until you have loaded the analog touch driver (e.g. HAMOUSEB.EXE).
	The IPCTCH must not be loaded any more.
	Ensure that the touch panel is calibrated correctly.

Enter the following lines (see example) into the AUTOEXEC.BAT:

```
rem /// Install Analog touch driver (IRQ=10, IO=320h)
rem /// Driver MUST be in the directory \HAMMOUSE to find
rem /// calibration file!!

cd \hammouse
hamouseb /i10 /b800
cd \

rem /// Load IPCMSTCH to get keyboard scan codes instead
rem ///of mouse clicks

ipcmstch
```

The driver can be activated with the same configuration files as the IPCTCH.

The driver for the analog touch panel also works with standard mouse drivers. The application used must not use/initialise the mouse, as that might otherwise lead to conflicts.

With each change in graphics mode the IPCMSTCH is reactivated. At present all standard IBM graphics modes with the exception of VESA-graphics modes are supported.

ADC Board

General information

For the DNeT IPC 5/100 a machine-data / operating data acquisition card is available not only for the ISA-Bus (Art-No. 12045 with 4xO/16xI, incl. RiserCard), but also for the PCI-Bus (Art-No. 12046, with 4xO/16xI, incl. RiserCard) (Art-No. 12047, with 8xO/32xI, incl. RiserCard).

The version for the ISA-Bus supports four digital outputs and 16 digital inputs.

The version for the PCI-Bus supports four (optionally eight) digital outputs and 16 digital inputs. All inputs and outputs are galvanically separated via optocouplers.

Functions

The card records via an I/O Controller interrupt-controlled external signal status and can set outputs via the controller. To condition external signals 16 galvanically separated inputs (optionally 32 for PCI plug-in card) are available. To output data four galvanically separated outputs (optionally 8 for PCI plug-in cards) are available.

Resources

The ADC/MDC plug-in card in the version for the ISA-Bus requires four addresses in the I/O-address area (16 different basic addresses selectable, as from 0200h in 20h steps) and an Interrupt channel (channel 2 to 7 selectable). The IRQ required has to be reserved in the BIOS. In Appendix C the adjustable jumper settings are described (see *Appendix C:View jumper layout on ADC/MDC ISA-plug-in card*).

This reservation is made on the *PNP/PCI CONFIGURATION* side of the BIOS Setup. For this purpose the interrupt required is converted to *Legacy ISA*. The I/O range required cannot be reserved from the BIOS. It has to be free from the system equipment side.

If conflicts with any other components arise it will be necessary to reallocate some of the resources.

The ADC/MDC plug-in card in the version for the PCI-Bus obtains its resources from the BIOS during the initialisation phase.

Operating status

Status of internal LEDs		IPC 5/100-Status
Power (green)	Temp (red)	
OFF	OFF	Initial State, dead time – waiting for renewed ignition signal after switch-off
OFF	FLASHING	Temperature sensor faulty
OFF	ON	Heating on at $T < 5^{\circ}\text{C}$ or over-temperature warning $T > 62^{\circ}\text{C}$
ON	OFF	Computer start / normal operation / delay time
ON	ON	$T < -5^{\circ}\text{C}$ or $T > 70^{\circ}\text{C}$
ON	FLASHING	Temperature sensor faulty

Table 5: Status of Power- and Temp-LED of the DNeT IPC 5/100

LCD connector

Version: OUPIIN, 68-wire

P27

Pin-No.	Signal	Pin-No.	Signal
A1	P24	B1	P30
A2	P25	B2	P31
A3	P26	B3	P32
A4	P27	B4	P33
A5	P28	B5	P34
A6	P29	B6	P35
A7	+5VBL	B7	+5VBL
A8	+5VBL	B8	+5VBL
A9	FLM	B9	GND
A10	LP	B10	P8
A11	SHFCLK	B11	P9
A12	ENAVEE	B12	P10
A13	P3	B13	P11
A14	P2	B14	P12
A15	P1	B15	P13
A16	P0	B16	P14
A17	SPEAKER	B17	P15
A18	DE	B18	GND
A19	LCDON	B19	P16
A20	ENAVDD	B20	P17
A21	DE	B21	P18
A22	P7	B22	P19
A23	P6	B23	P20
A24	P5	B24	P21
A25	P4	B25	P22
A26	ACTIVEHD	B26	P23
A27	GND	B27	GND
A28	+5V	B28	+3,3V
A29	+5V	B29	+3,3V
A30	GND	B30	ENABKL
A31	GND	B31	OPVNEG
A32	+5VBL	B32	+12V
A33	GND	B33	+12V
A34	+12V	B34	+12V

Signal	Pin-No.	Pin-No.	Signal
/MASTER	D1 7	C1 7	SD14
GND	D1 8	C1 8	SD15

n.c. = not connected

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Full Version Available

DLoG DNeT IPC 5/100 Industrial PC Service Manual

DLoG DNeT IPC 5/100 industrial pc service manual with BIOS, jumper, terminal and maintenance sections. 528 pages, English and German. Instant PDF download.

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