



Main applications

- Process supervisor
- Gateway between field and control systems
- Data centralization
- Human-machine interface (HMI) (*)
- Control of machines and systems
- Data display (*)

(*) with remote display

Main features

- Mounting on horizontal and vertical plates
- High performance
- Modularity
- Easy maintenance and access
- Reduced depth
- Scalable functions
- Connectivity
- No internal wires
- In Conformity with UL508

PROFILE

GF-BOX is a PC box with highly scalable control functions.

This version combines the typical functions of PC architecture with a number of specific control application functions (such as use of the VxWorks operating system with SEVEN programming environment) in a compact case.

Because GF-BOX can be operated with Windows XP (both Professional and Embedded), it can be used for many industrial applications, such as machine control units, data centralization systems, and supervision.

GF-BOX is equipped with a VGA interface (resolution 1024x768 at 16 million colors) for connection to external monitors and displays such as the Gefran DIGIPANEL.

GF-BOX is based on Intel™ processors, from the 400 MHz Celeron-m up to the more powerful Celeron-M 1.3 GHz and Pentium-M 1.8 GHz Centrino®.

This provides extremely efficient heat dissipation with minimum use of the PC cooling fan.

The processor does not require ventilation.

GF-BOX can be fitted with a DOM-type solid state mass storage or a 2.5" HD for better configuration, depending on the application and operating system used.

Thanks to the complete series of available ports (Ethernet, USB, serials, parallel, PS/2, etc.), GF-BOX can be connected to the various peripherals commonly used by industry.

Optional custom interfaces and standard PCI and PC104 expansion slots provide maximum connectivity.

Available interfaces include CAN bus, RS422/485 serial expansions and additional Ethernet channels.

A number of functions, such as keyboard control, LEDs, and switch-on logic output with programmable timer, are useful for controlling machines and industrial lines. Careful construction and mechanical design make it easy to install and give correct access to expansions. Simple maintenance guarantees long life and reliability.

TECHNICAL DATA

PROCESSORS

Intel™

- Celeron-m™ 400 Mhz 128 kb Cache L2 *
- Celeron-M™ 1300 Mhz 512 kb Cache L2
- Pentium-M™ 1800 Mhz 2 Mb Cache L2

CHIPSET

- VT8603C/VT82C686B
- Intel™ 82855 GME 400 MHz FSB*

GRAPHICS CARD

- S3 Savage 4 VT8606 AGP, 8 Mb VRAM*
- Intel Extreme Graphics2, 8 Mb VRam

DYNAMIC RAM

- 128Mb – 512 Mb* SODIMM PC133
- 256Mb - 1024 Mb SDRAM DDR

STATIC RAM

- 256 Kb with lithium backup battery

MASS STORAGE

SSD

- DOM 64Mb, 128Mb, 512Mb*
- DOM 1024Mb, 2048Mb

Magnetic

- Optional HDD 2.5 IDE
- Optional FDD to connect to specific port

(*) Version C40

I/O PORTS

- 2 RS 232 serial ports
- 2 USB 1.1, 2.0 ports
- 1 RJ45 10/100Mbps Ethernet port
- 1 VGA port for external monitor
- PS/2 ports for keyboard and mouse
- Centronics parallel port
- Synchronous serial port for matrix control max. 128 keys and 64 LEDs
- 24 VDC logic output, open collector, max 100 mA optically isolated for switch-on with programmable timer; can be activated even with system off.
- Connector for external battery

EXPANSIONS

- 1 PCI slot
- 1 PC104 16 Bit slot for 3 modules
- 4 Custom slots for optional interfaces
- 2 PCMCIA type II slots or 1 type III slot on request for quantities

DIAGNOSTICS

Alarm and operating state LEDs

OPTIONAL INTERFACES

- GT-SER2 module:
2 COM3, COM4 serial ports
2xRS232/RS422/RS485, optically isolated

COM4 is not available if a touch screen is installed.

- GT-CAN1 module:
1 optically isolated CAN L2 channel; Intel 82527CAN controller

- GT-CAN2 module:
2 optically isolated CAN L2 channels; Intel 82527CAN controller
- GT-ETH1 module:
1 Ethernet channel 10/100 Mbps Intel 82551ER Ethernet controller
- GT-ETH2 module;
2 Ethernet channels
Intel 82551ER Ethernet controller
(see specific documents)

GT-CAN(x) modules cannot be used for versions with Windows XP OS.

KEYBOARD AND CURSORS

- Optional DIGITAST keyboard with optional mousepad

POWER SUPPLY

- 18..30 VDC 2.5A max. with polarity protection
- Galvanic insulation
- Short circuit protection with resettable PTC
- ON/OFF switch

OPERATING SYSTEMS

- VxWorks™
- Microsoft Windows XP Pro MUI Pack™
- Microsoft Windows XP Embedded™

AMBIENT OPERATING CONDITIONS

- IP 20 protection
- Operating temperature 0°C..+50°C
- Storage temperature -20°C..+70°C
- Humidity: 90% max., non-condensing

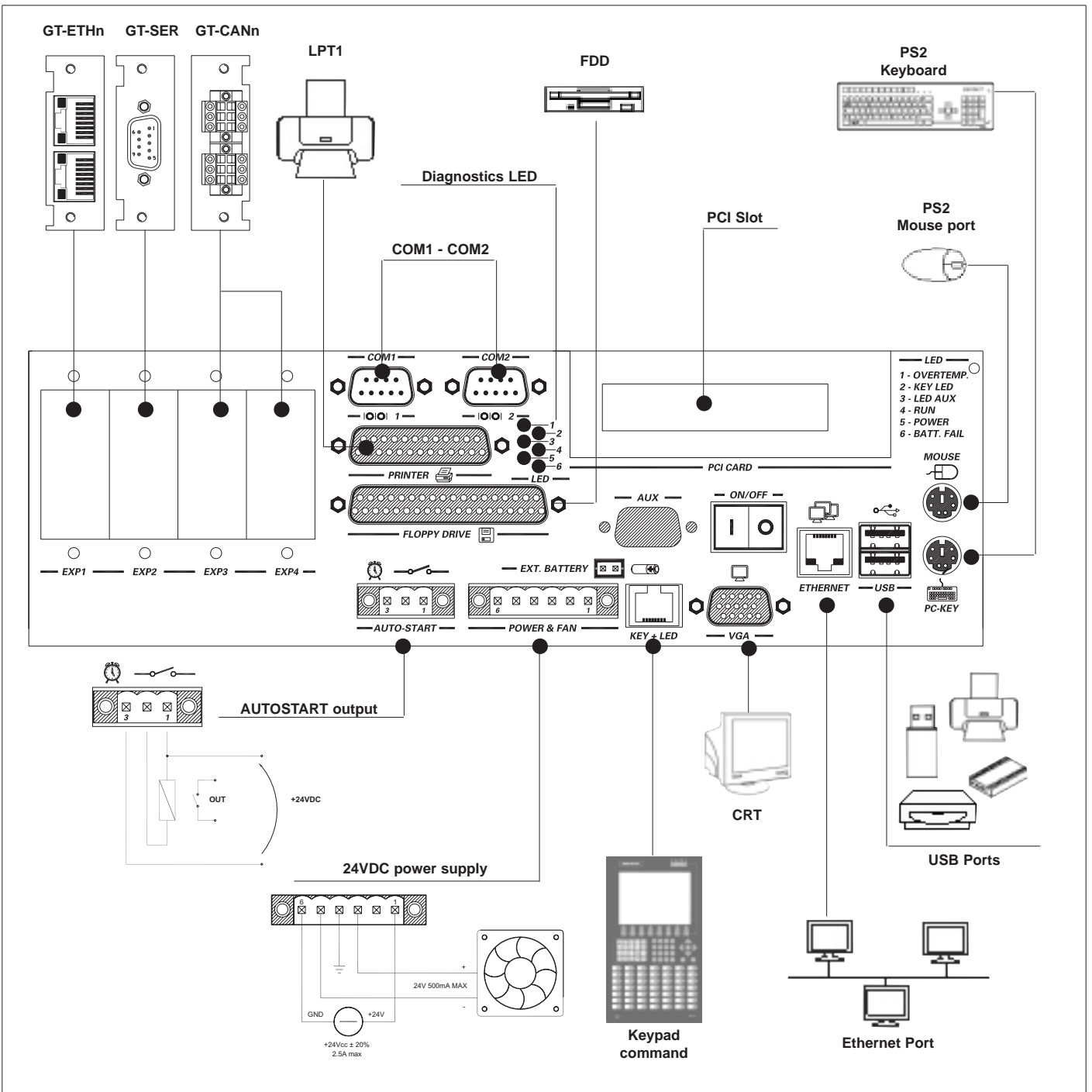
DIMENSIONS AND WEIGHTS

- without bracket:
275x205x90 mm - 4 Kg max
- with bracket:
275x205x90 mm – 4.5 Kg max

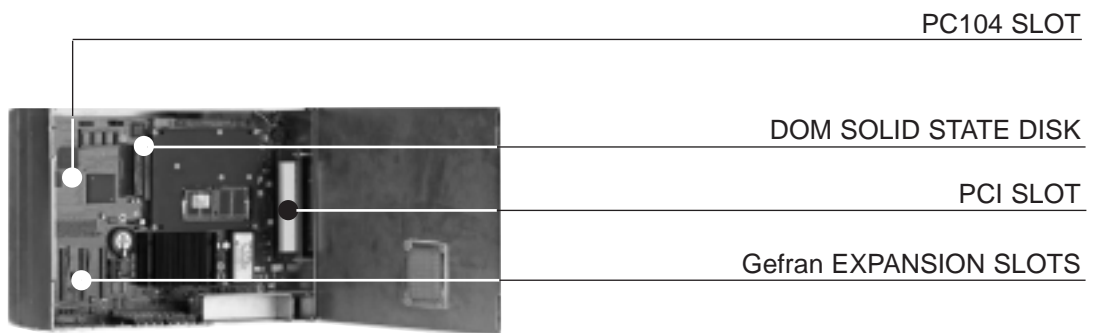
FRONT PANEL



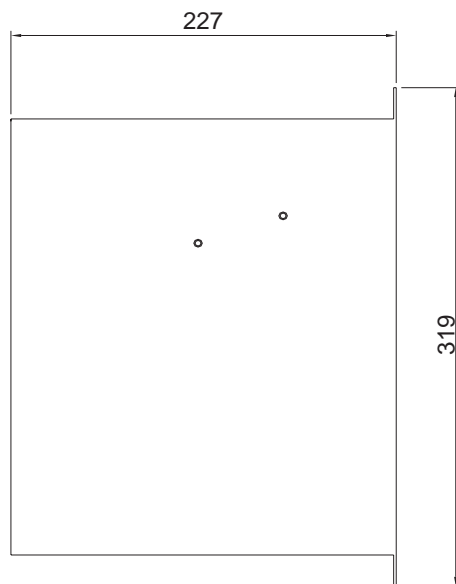
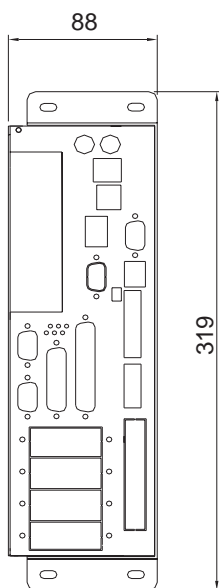
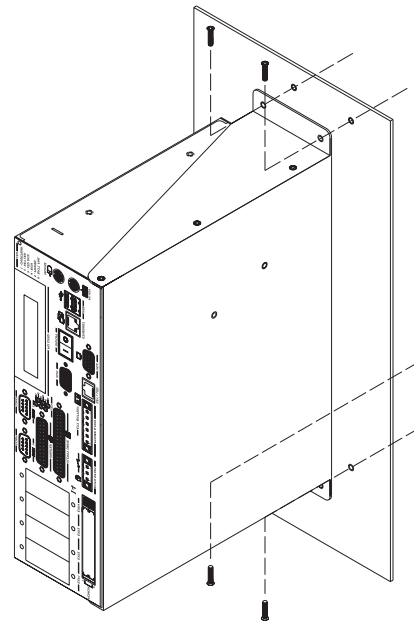
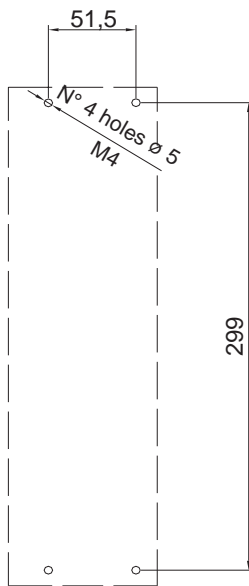
CONNECTIONS and OPTIONS



INTERNAL VIEW AND CONFIGURATION OPTIONS



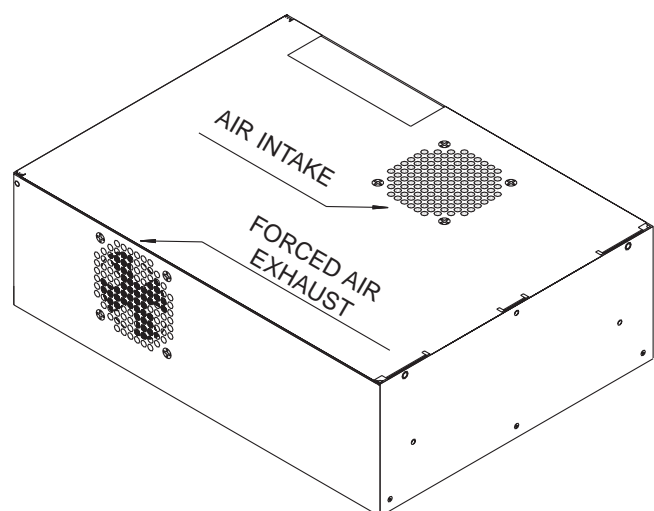
MECHANICAL CHARACTERISTICS AND OVERALL DIMENSIONS



Installation warnings

DO NOT install the product in devices or boxes without adequate air circulation or heat exchange sufficient to maintain the temperature below 50°C.

When installing the product, be careful to position it so as to prevent accidental knocking.



ORDER CODE

	CONN	OS	μP	RAM	DOM	EXP1	EXP2	EXP3	EXP4	
GFBOX	-	-	-	-	-	-	-	-	-	000

DISTANZA DEL DISPLAY	
Locale (max 3 m)	LOC

OPERATING SYSTEM	
Rom-dos	00
VxWorks (*)	VW
Windows XP Pro MUI Pack ™(1)	XP
Windows XP Embedded™	XE

CPU	
CELERON™ 400 MHz	C40
Classe CELERON M™	PCM
Classe PENTIUN M™	PMT

DRAM	
sodimm 128 MB (*)	R128
sodimm 256 MB	R256
sodimm 512 MB	R512

DOM & HD	
DOM 64 Mb (*)	D064
DOM 512 Mb (*)	D512
DOM 1024 Mb (2)	D1G0
DOM 2048 Mb	D2G0
Hard Disk (3)	HD20

CUSTOM SLOT 4 EXPANSION	
00	none
C1	1 CAN channel (*) GT-CAN1
C2	2 CAN channels (*) GT-CAN2

CUSTOM SLOT 3 EXPANSION	
00	none
C1	1 CAN channel (*) GT-CAN1
C2	2 CAN channels (*) GT-CAN2



CUSTOM SLOT 2 EXPANSION	
00	none
SR	2 serial channels (2) GT-SER2

CUSTOM SLOT 1 EXPANSION	
00	none
E1	1 Ethernet channel GT-ETH1
E2	2 Ethernet channels GT-ETH2

(*) Not available for CPU PCM and PMT
 (1) Requires options R256 and HD20
 (2) Standard in models PCM and PMT
 (3) Minimum hard disk capacity depends on availability

Kindly contact GEFTRAN for information on available codes.

GEFRAN spa reserves the right to make aesthetic or functional changes at any time and without notice

	Conformity UL508 File no. E198546
	The device conforms to European Union Directives 89/336/CEE and 73/23/CEE with reference to generic standards: CEI-EN 61000-6-2 (immunity in industrial environment) – EN 61000-6-3 (emissions in residential environments) – EN 61010-1 (safety) – EN 61161-2 (product standard)