# Desktop Ticket/Card Printer

## GPT-4632/4633

Up to 200 mm/s Fast • High Resolution 203 dpi Text • Graphics • Bar Code • 28/56, 40/80 Characters/Line Interfaces: USB or RS232 optionally Different Paper Width 51-60/58-82,5 mm Small, Compact Design • Integrated Paper Cutter



#### Elektronik und Feinwerktechnik GmbH

Modules and devices for input, analysis, display and printing of analog and digital data.

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GPT-4633

GPT-4632

## **Operating Manual**

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## **1** Safety Instructions

#### 1.1 Symbols and their Meaning

Carefully read all safety instructions!

#### 

concerns your **personal safety** and **must be observed at all times**. It is essential to forward these instructions to all other personnel using this device.

#### Caution hot surfaces

concerns your **personal safety** and signals a **risk of being burned** upon touch. It is essential to forward these instructions to all other personnel using this device.

#### 🜗 тір

#### concerns equipment safety.

The adherence of all instructions, as well as the appropriate application and use in accordance with the op-erating instructions are binding for product liability and product warranty. Attempts by the customer to repair the device will make all warranty claims null and void.

## For technical questions, please contact GeBE Technical Support.

Instructions marked with a  $\checkmark$  require consultation with GeBE Technical Support.

Tips marked with a  $\checkmark$  will help you to utilize your printer to its fullest.

Documents or Internet links are marked with a <a></a>, referring to more detailed or additional information.

#### **1.2 Device Information**

Safe operation of this device is only warranteed, if the instructions in this operating manual have been complied with.

#### For installation:

Always disconnect system power supplies. Only use original parts and accessories.

#### 🜗 тір

• The device may only be opened or repaired by authorized personnel. Never open the device or carry out repairs yourself. Always contact authorized technical service personnel.

You can find all relevant data in the chapter "Service and Maintenance".

- Before the device is turned on, make sure that the system voltage of your installation matches the supply voltage of the device. The device characteristics are printed on the name plate and in the technical data.
- The name plate is located on the underside of the device.
- For the technical data of this device, refer to the chapter "Technical Data".

- Peripheral devices that are connected to the interfaces and the DC circuits of this device have to meet the requirements for low safety voltage in accordance with EN/IEC 60950.
- Switching off the device does not completely disconnect it from the power supply. Your device is only disconnected completely, when the power is unplugged.

#### 

• Please make sure that the power supply cable is routed in such a way that it is not a trip hazzard, and it cannot be damaged by other devices.

#### A CAUTION hot surfaces

• During operation, surfaces in the surrounding area of the print head may heat up. Therefore, direct contact with the print head must be avoided to prevent burning accidents. Do not put heat sensitive objects close to this heat source.

#### 🜗 тір

- Avoid constant high humidity and condensation. Protect the device from being splashed and from com-ing in contact with chemicals.
- Only use spare parts and accessories supplied or authorized by GeBE. The use of unauthorized parts or accessories may considerably affect the function and safety of the device. All parts included are listed in the chapter "Packing List", while the original accessories are listed in the chapter "Parts and Accessories ".
- It is no longer possible to safely operate the device, if:
- the housing has been damaged due to mechanical overload
- moisture reached the inside of the device
- smoke is coming from the inside of the device
- the power supply cord is damaged
- the device stopped working properly

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Unplug or turn off the device immediately, when such a failure occurs, and contact GeBE customer service. See chapter "Service and Maintenance".



We explicitly state that all product liability and guarantee claims are null and void, if the device has not been used in accordance with the instructions in this operating manual or on the device itself, or if it has been used inappropriately.

## **2 Description**

#### **Fast Printing**

Various applications - especially in the public domain - often demand significantly faster data output than most conventional thermal printers in the market can achieve with their 50 - 80 mm per second. The print speed is up to 200 mm per second, which is four times faster than most conventional thermal printers.

#### **GeBE Controller**

The controller GCT-4692, developed by GeBE is reliably controlling these fast printouts. It has been united with a robust printer mechanism to form a new product. The mechanics of the printer mechanims originate from the long established industrial printer module family COMPACT PLUS from GeBE. In addition to its speed, this fast and compact ticket printer stands out due to high reliability, its service and application friendliness.

#### **Integrated Cutter**

Papers with a thickness of up to 220  $\mu$ m can be used. For printing, tickets can be fed either individually, as Leporello, folded zig-zag or from a paper roll. The position marker sensor recognizes the position of the ticket and will automatically start the printing. The cutting at the end of the ticket by the integrated cutter is initiated via command. Alternatively, tickets may also be torn off if they are perforated, making this printer ideal for printing admission tabs or flight tickets.

#### **Various Paper Widths**

selectable through slide-in adjuster GPT-4632: 51 / 54 / 60 mm GPT-4633: 58 / 60 / 63,5 / 68 / 76,2 / 82,5 mm

#### **Extensive Layout Commands**

Extensive layout commands and the choice of 8 character sizes contribute to an attractive ticket design.

#### **Integrated Text Conserves**

GeBE-PIANO<sup>®</sup> GPT-4632 has the possibility to preprogram 8 different text conserves, such as logos, graphics or texts. The integrated selection switch enables editing the desired conserve directly at the printer by turning the switch in position 1 to 8.

#### Simple Software Adaptation

Setup settings, such as blackening, text size etc., can be established by the administrator. On request, GeBE also offers factory adaptations for commands and character sets.

#### **Data Interfaces**

By default, the printer is equipped with a USB interface. RS232 is available as an option.

#### Downloads

Firmware, fonts, logos, macros, settings, etc. can easily be sent as a file from the PC through the active interface to the printer, where they can be stored permanently.

#### **Power Supply Unit**

The printer is operated with 24 VDC from an external GeBE power supply unit (Art. No.: GNG-24V-4A-AC-T).

## 3 Packing List

#### 3.1 Unpacking

Please check during the unpacking process that all parts have been delivered completely and undamaged. Make sure to remove all parts from the packaging material. Claims for damages caused during transport can only be asserted, if the carrier is informed without delay. Please prepare a survey report and send it back to the supplier along with the damaged part.

#### **3.2 Standard Accessories**

The printers are equipped with

output lip

will be delivered in a box with:

- power supply GKA 304-2-5000
- interface cable USB
- operation manual SMAN-673



#### 3.3 Driver Software

The printer is supported by the following drivers:

- "Tiny Driver"
- for Windows®CE 4.2, 5.0 and 6.0
- "GeBE Universal Driver"
  for MS Windows® 2000, XP, VISTA and 7
- "Linux Driver" for CUPS (successfully tested with CUPS 1.2 or 1.4)

The driver software is available for download from the Internet at: <u>www.oem-printer.com.</u>

#### 3.4 Options

- paper roll holder for two positions
- · leporello paper holder
- paper exit ramp
- output bezel
- mounting base
- slide-in paper width adjuster

## **Layout and Functions**

#### **4 Layout and Functions**

#### 🜗 тір

The technology and equipment of the product described in this manual are in accordance with the latest state of national and international requirements in regard to function and safety. Further developments and advancements are continously being considered. For this reason, illustrations, dimensions, technical data, and general content shown in the following may change without prior notice.

This operating manual is designed to help you operate our product, which has been developed and manufactured according to the most modern technology standards, with its multiple options, optimally and securely. Please read this manual carefully before initial operation and store it in close proximity of the device, so it will be available if needed.

Should you have any further questions, please contact our personnel. Phone numbers and email addresses are listed in the chapter "Service and Maintenance".



#### Designations

- 1 Connection Power
- 2 Connection USB or RS232
- 3 Output bezel
- 4 Feed button
- 5 Feed paper till exit, programmable button
- 6 Status lamp
- 7 Adjuster positions for paper width
- 8 Optional election switch for text concerves (GPT-4632 only)

#### 4.1 Connections

#### 4.1.1 Power Supply

The printer is operated with 24 VDC from an external GeBE power supply (1) unit (Art. No.: GNG-24V-3,7A-AC-T).





## **Layout and Functions**

#### 4.2 Paper insert

The printers are specified for paper width 51-60/58-82.5  $\pm$  0.5 mm paper widths and up to 220  $\mu m$  paper thickness.

#### 4.2.1 Print side

The thermo printer can only print to the thermo sensitive side of the paper!

Normally, the inside of the paper is the printable side. To verify, try the finger nail test: Quickly run the tip of a finger nail across the paper, applying pressure. Heat caused by the friction will result in blackening on the thermo sensitive side.

#### 4.2.2 Single ticket print

Insert a single ticket from the paper insert side. If the ticket is narrow, adjust the insert with the slide-in adjuster.

#### 4.2.3 Slide-in adjuster for paper width

Adjuster for using paper of different widths.



Different positions are available for the adjuster. To install the adjuster, slide it in one of the prepared positions until inner stop. For removal, simply pull out the adjuster.

#### 4.2.4 Paper holder for paper rolls

A paper roll holder is optionally available. The holder has two mounting bolts (8). To fix the holder to the printer insert the bolts in the two mounting hole (9) at the bottom side of the printer. Slide the printer towards the holder until the holder snaps in place.





slide towards untill stop

#### 4.2.4.1 Moving the paper holder

The paper holder has two mounting positions to enable the use of paper rolls with different roll diameters. Paper roll size holder position  $1 = \max$ . 150 mm Paper roll size holder position  $2 = \max$ . 185 mm

To change axle positions, the holder has to be disassemled completely before the axle can be screwed into the new position.



#### 4.2.4.2 Exchanging paper roll

- Pull empty paper roll core off of the paper axle.
- Remove paper rest, if necessary, by opening the housing (see 4.2.6) or pressing the feed button for transporting the remaining paper out of the printer.
- Replace with new paper roll.
- Regard that the thermal sensitive print side has to show upwards.
- Position paper on the paper feeding tray and push it toward the printer mechanism.
- The paper is insert automatically.



#### 4.2.5 Ticket print from leporoller holder

(on request)

The ticket paper is often available as leporello fanfold.



#### 4.2.5.1 Exchanging leporello paper

- Fill a new pile of leporello paper into the holder.
- Regard that the thermal sensitiv print side has to show upwards.
- Remove paper rest, if necessary, by opening the housing (see 4.2.6) or pressing the feed button for transporting the remaining paper out of the printer.
- Position paper on the paper feeding tray and push it toward the printer mechanism.
- The paper is insert automatically.

#### 4.2.6 Black mark sensor (AUX1)

Paper with position marks will be positioned by a black mark sensor. This allows for reliable positioning, so that the printout appears at the desired position on the paper. Opening the mechanism gives access to the black mark sensor (10). To open the device to see the mark sensor proceed as follows:

- a) place the printer on the paper insert side
- b) press the metal profile upwards
- c) the housing should easily open







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## **Layout and Functions**

#### 4.3 Paper exit

#### 4.3.1 Cutter

After printing, the paper/ticket will be cut and fad out of the device. The paper can be completely cut by using the full cut command or partial cut by segment cut command. The command is either programmed in the driver software or can also be given directly.

#### 4.3.2 Output lip

The printer exits paper the through the output lip, as shown in picture below. After a full cut the ticket/paper falls down. After a segment cut the ticket lolls out of the output lip and can be ripped off.



#### 4.3.3 Paper exit ramp

#### (on request)

After a full cut, the ticket can be held in a paper exit ramp (optional). The ramp will be fixed onto the output lip.



#### 4.3.4 Output bezel

Alternatively, after a full cut the ticket can be held by the printer through the use of an optional output bezel (11). The output bezel will be installed onto the output lip. Therefore the printer has to be opened as described under section 4.2.6.



Slide the output bezel onto the profile and close the printer housing.



With the output bezel the cut paper (or a single ticket print) will be held at the printer exit until the customer takes it off or until the next printout pushes it out of the printer.





(optional available)

4.3.4.1 Mounting base

Use 4 screws to mount this plate on cabinets or special holders (2).

Installation example:



The plate has two mounting bolts (3). To fix the holder to the printer, insert the bolts in the two mounting hole at the bottom side of the printer. Slide the printer towards the holder until the holder snaps in place.





## **5 Paper Specification**

#### Selecting the Right Thermal Paper

The color processing in thermal printing is generated in the coating itself, making the thermal paper part of the printing system and decisively affecting the overall result. The wrong thermal paper or one of minor quality can damage a printer within a short period of time. Only specified papers guarantee that the indicated life time is to be achieved.

Many mistakes can be made when printing on thermal paper.

We have been successfully cooperating with companies that have a lot of experience with the technology and that are very familiar with our printers.

#### **Rules for Printing on Preprinted Paper**

- 1. Ink application in the areas for printing should be kept to a minimum, preferably zero.
- 2. Only use specified thermal printing ink with a minimum temperature tolerance of 230°C.
- 3. Sensitive, metallic and luminescent ink may not be printed on. Hologram film should also be placed outside of the print layout.
- 4. The thermal output (blackening = 20) has to be reduced, and a different printer setting may have to be selected. Please contact GeBE for details.

#### 5.1 Approved Paper from Kanzan

For low speed printing (up to 130 mm/s) KPO 412 / KPO 415 / KL 412 / KL 415

For high speed printing up to 200 mm/s KL 515 / KL 515 PR / KL 517 PR

#### 5.2 Approved Paper from Mitsubishi

For low speed printing T1437 and T1737

For high speed printing up to 200 mm/s TF1775 and 1875 / TF1467 and 1767

#### Further details see Short-Information KI-605.

#### 5.3 Ticket size - set black mark

The printer is factory preset for the use of GeBE standard ticket GPL-CARD01-082-150-100:

#### Parameter

- 16 := 254 maximum ticket length = 254 mm17 := 10 minimum black mark length = 10 dot lines18 := 112 length till paper end detection = 14 mm19 := 28 black mark position
- 34 := 80 distance print head cutter = 10 mm

For most tickets, parameter 19 has to be changed only. Tolerances in imprinting black marks or in the sensor system can cause the need of readjusting each new paper stable. To simplify this setting, GeBE offers a little tool: "setcutposition.exe".

Alternatively also the "GeBE Toolbox" or "WinZ1" can be used to process this adjustments.

#### 6 Cleaning and Maintenance

After larger print efforts, depending on the paper quality and adverse environmental conditions, it may be necessary to clean the print head, sensor and the platen roll, especially, if some areas are no longer printed properly.

- 1. To open the printer place the printer on the paper insert side and press the metal profile upwards. The housing should easily open.
- 2. Blow forcefully into printer mechanism and onto position mark sensor (10), in order to remove coarse dust.

On principle the printer has to be kept dust-free.

- 4. Use a small brush to clean paper carrier roll, sensor and tear-off edge from dirt.
- 5. Soak Q-tip in isopropanol (IPA) and clean the print bar. Other stubborn debris can also be removed with a Q-tip

Never use sharp objects for cleaning. This might cause damage print head. Do not touch the print head. This might cause damage through electrostatic charge.







## **Character Sets**

## 7 Character Sets

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#### **Font Sizes**

The number of printable characters per line depends on the physical features of the printer used. The table below lists some examples:

Font cyrillic

Font		640 Dots/Line	Width	Height
Small Font	(8x16)	80 CPL	normal	normal
Low Font	(16x16)	40 CPL	double	normal
Narrow Font	(8x32)	80 CPL	normal	double
Normal Font	(16x32)	40 CPL	double	double
Wide Font	(32x32)	20 CPL	quadruple	double
High Font	(16x64)	40 CPL	double	quadruple
Large Font	(32x64)	20 CPL	quadruple	quadruple
Xlarge Font	(64x128)	10 CPL	eight times	eight times

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## 8 Interfaces

#### 8.1 USB Interface

The printer equipped with an USB interface

(USB printer class):

USB V1.1 full speed (12 Mbit/s)

USB V2.0 compatible (full speed/12 Mbit/s)

The connections is done through a USB connector type B.

USB Specification	V1.1 (V2.0 compatible)	
Device Type	Vendor Specific Device or Printer Class	
USB	Full Speed 12 Mbit/s	
Power Consumptid No Printing Typ.		Тур.
	USB active /Printer active	30 mA
	USB active /Printer sleep	25 mA
	USB suspend / Printer sleep	300 µA
•		

Pin	Signal	Input/ Output	Comment
1	Vcc-USB	-	
2	D-	I/0	
3	D+	I/0	
4	GND	-	

## 8.2 RS232 Interface

optional available

#### Pin assignment RS232

Connector at the printer:

(5pin) serial cable. The other end has a 9 pin SUB-D socket. The assignment is 1:1 matching the serial COM interface of the PC.

1	ano Mini-USB onnector		Pin Assignment of the Serial Interface Cable	COM Interfac 9pin SUB-D	e PC
Pir	Signal	I/O	Comment	Signal	Pin
1	стѕ	0	If the level is logic-true, the controller can receive data.	CTS	8
2	TxD	I	Print data	TxD	3
3	RxD	0	Error messages and Xon/Xoff messages	RxD	2
4	VAUX/RTS	I/O	VP, VCC, or RTS selectable at the factory through solder bridges	RTS	7
5	GND signal	GND		GND signal	5
	Frame		At the controller, screen is connected to GNDF (frame ground)	Frame	1,4,6, 9 = NC

## 9 Installation

#### 9.1 Windows® universal driver

For easy start up use the Windows® universal driver included in the delivery content or available from the GeBE website: www.gebe.net.

#### Important:

Delete other universal drivers from your computer prior to the installation. Otherwise the GeBE-Piano application will not function properly.

The driver manual contains also a detailed description "UniversalDriver.pdf".

- 1. Connect the printer via USB interface with your computer.
- 2. The computer will recognize the connected printer automatically
- 3. If following message appear, please do not follow the installation guide. *This way will not install the driver properly.* To quit and avoid this message for the next time, confirm the setup as follows:
  - a) Select automatic installation and click "next".
  - b) As the software is not found, the wizard prompts "hardware installation not possible".
  - c) Mark the check box below and confirm the message with "Finish". This welcome setup will then no more appear for the next time.



- 4. Now the installation will be carried out through the printer installation assistant. Use START/system settings/printer&fax in order to add a new printer to your computer. Follow the installation wizard of the assistant.
- 5. At the first installation select the virtual printer port USB001 for printer connection. In case a GeBE printer has already been installed before, it may happen that Windows® does connect to another port e.g. USB002. This will cause the printer to report that the document can not be printed. In that case manually change the printer port settings of the already installed printer from port USB001 to any other port number.

6. Please ignore the message of missing driver certifcation and continue the installation until the end.

#### 9.2 Linux driver

"Linux Driver" for CUPS is successfully tested with CUPS 1.2 or 1.4.

Installation example for CUPS 1.4.1, Kubuntu 9.10, Linux 2.6.31-17-generic:

- 1. Connect the printer via USB or serial (option) interface with your computer.
- Open the CUPS configuration (http://localhost:631/ admin).
- 3. Printer/ add printer.
- 4. Select under local printers: GeBE USB Printer A8.
- 5. Click "next".
- 6. nsert Name/Description/Location as you like.
- 7. Click "next" and add printer
- Select the standard settings of your ticket, e.g. 80x181mm,
- color mode: gray scale, resolution: 203dpi
- 9. Store standard settlings as default settings.
- 10. Control the printer (http://localhost:631/printers).
- 11. The printer should show up as "GeBE\_USB\_Printer\_A8" (Type and Model: "GeBE A8 Printer with 203dpi, 1.2").

## **10 Ticket Print**

Please refer to software manual SoMAN 559 for adjusting a ticket or settings by software commands.

#### 10.1 Create a ticket

Using the Windows® driver, tickets can be created under WORD in .doc, OpenOffice in .odt or in .pdf format.

Example for OpenOffice:

- 1. Start a new document
- 2. Adjust the document size according to ticket size.
- 3. Create your ticket.
- 4. Save your document.

#### HINT: Use and modify the example ticket from the "Piano support package" to create your ticket for the first time.



#### 10.2 Print your ticket

- 1. Select File>Print.
- 2. Select the GeBE-Piano printer from the list.



3. Set the properties under Properties>Ticket/Label. Select the paper source.

4. Set the properties under Properties>Advanced



#### 10.2.1 Print settings

The print settings define which actions will be performed by the printer at begin or at the end of a ticket.

Following settings are available:

Document start:

- No action
- Retract to Top of Page
- Feed 10 mm

#### Page start:

- No action
- Retract to Top of Page
- Feed 10 mm

#### Page end:

\_

\_

\_

- No action
- EoT Feed to Tearbar
- EoT Full Cut
- EoT Double Cut

#### Document end:

- No action
- EoT Feed to Tearbar
- EoT Full Cut
- EoT Double Cut

## **Ticket Print**

#### 10.2.1.1 Printing single tickets

If one single ticket paper is inserted manually, no action is needed at start or end. Therefore following setting is required:	<u>Group tickets</u> If several tickets, e.g. 3 should be printed, remain sticking together and be cut/torn off at the end, following settings are required:
Document start:	
- No action	Set the print settings copies to 3 (see chapter 5.3.3.1).
Page start:	
- No action	Document start:
Page end:	- No action
- No action	Page start:
Document end:	- No action
- EoT Eject Single Ticket	Page end:
	- No action
	Document end:
	- EoT Feed to Tearbar

#### **10.2.1.2 Ticket print from roll or leporello stack**

#### Cutting ticket

If one ticket should be printed and cut at the end, settings for Full, Half or Double Cut are available:

Document s	start:
-	No action
Page start:	
-	No action
Page end:	
-	EoT Full Cut
-	EoT Double Cut
Document e	end:
-	No action

Information: The Double Cut function is used to cut out the perforation at ticket end.

Tear off ticket If one ticket should be printed and torn off at the end, the following settings are required:

- Document start: No action Page start: No action Retract to Top of Page Page end: EoT Feed to Tearbar Document end:
- No action \_

EoT Full Cut

EoT Double Cut

## **Troubleshooting and Recovery**

## **11 Troubleshooting and Recovery**

Not every failure means that there is an error that cannot be cleared by the user himself. You will save time and money by recognizing and fixing simple errors on your own. The following tips are meant to help you with this: **Hardware RESET:** Activated by unplugging and reconnecting the power supply after a short break. This reinitializes the printer.

Symptom	Possible Cause	Remedy
The printer seems to be printing, but the paper is not blackened.		Insert paper correctly.
The printer only prints a few characters in one line. If more is entered, it stops printing altogether.		Use sufficiently sized power supply and short feed lines. Check all connections for possible transfer resistances. Since high peak currents occur with thermal printers, even the smallest transfer resistances can result in intolerable voltage drops. In
The printer only prints a few dots in one line.	Wrong printer settings	this case, no power supply would be strong enough. Buffering with capacitors is possible, if the power supply is only too weak by a small margin and large capacitors (e.g. 4,700 $\mu$ F; high switching capability) are used.
The printer does not recognize black marks	Wrong label settings.	Check settings and change if required.
	Black mark sensor is dirty.	Clean black mark sensor.

## **12 Service**

#### Warranty

We guarantee that all goods supplied by GeBE possess the warranted features. The guarantee period for OEMs is 12 months unless other terms have been agreed upon in writing. The guarantee period is calculated from the date of shipment.

The warranty is null and void, if the customer fails to claim an occuring defect without delay and in writing. Detailed information on our warranty is part of our terms of delivery and payment, which can be seen and downloaded at www.oem-printer.com/lzb (home page chapter: About Us).

## **Service**

For service or questions, please contact: GeBE Elektronik und Feinwerktechnik GmbH Beethovenstr. 15 • 82110 Germering • Germany • www.gebe.net Phone:++49 (0) 89/894141-0 • Fax:++49 (0) 89/8402168 • e-mail: sales.ef@gebe.net

## Further Information

Further information is available at www.oem-printer.com/piano. At this address, you can also find a personal consultant you can turn to with your questions. Or, contact the GeBE sales team via email: sales.ef@gebe.net For orders you can use this fax number: +49 (0) 89/894141-33

## **Declaration of Conformity**

#### **13 Declaration of Conformity**

## DECLARATION OF COMFORMITY

in compliance with EN45014

## KONFORMITÄTSERKLÄRUNG

in Übereinstimmung mit EN45014

Supplier: Anbieter:	GeBE Elektronik und Feinwerktechnik GmbH
Address: Anschrift:	Beethovenstr.15 82110 Germering Germany
Products: Produkte:	begining with Serial Number: <b>1003xxxx</b> beginnend mit Seriennummer: <b>1003xxxx</b>
	GPT-4632-94-USB

GPT-4632-94-USB GPT-4632-94-V.24 GPT-4633-92-USB GPT-4633-92-V.24

## The Products described above are in conformity with: Die oben beschriebenen Produkte ist konform mit:

EMC Directive / EMV Richtlinie	89/336/EWG
Information technology equipment	
Einrichtungen der Informationstechnik	
Radio disturbance characteristics	EN 55022 1998
Immunity characteristics	EN 55024 2003
Störfestigkeitseigenschaften	

Germering, the 11/05/2010, den 5.11.2010

Chaus Belik

Klaus Baldig Head of R&D/ Leiter der Entwicklung

GeBE Elektronik und Feinwerktechnik GmbH GKV 027-1

## **14 Mechanical Dimensions**

#### **GPT-4632 GeBE-PIANO<sup>®</sup>**

#### **GPT-4633 GeBE-PIANO<sup>®</sup>**





## **15 Technical Data**

	GPT-4632	GPT-4633	
Graphics printing	448 dots/line	640 dots/line	
Resolution	8 dpmm / 203 dpi		
Cutter	2 million cut	(S *) **)	
Printer Buffer	256 By	te	
Print Speed	up to 200 r	nm/s	
Paper / Print Width	51, 54, 60 / max. 58 mm	58, 60, 63,5, 68, 76,2, 82,5 / max. 80 mm	
Operating voltage	24 V D	C	
Max. Current Standby	80 mA	N Contraction of the second se	
Max. Printing Current	2 to 4 A adjustable by command (pro	eset to supplied power supply)	
Interfaces	USB, RS232 optionally		
Data Compression	factor approx. 3 :1 (for graphic commands); PC-compatible; Windows® driver		
Characters/line	28, 56 40, 80		
Print modes	Text / graphics / bar code 39, 128c, EAN13, 2of5 interleaved		
Environment	-10°C to +60°C *)		
	10% to 80% rel. humidity, no condensation		
MTBF*)	150 km paper cycle **)		
Paper roll diameter	max. 185 mm		
Paper Thickness	80 -220 μm *)		
Ticket feeding options	Leporello, incl. tickets, fan-folded		
Housing	ALU / PS		
Standards	CE : see Declaration of Conformity		
Weight	660 g	985 g	
Dimensions	122 x 86,6 x 93,5 mm	146 x 92,8 x 104,5 mm	

\*) using specified paper
 \*\*) according to mechanism testing conditions of the manufacturer

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