

Front Panel Printer Plastic Housing System

GEBE

Elektronik und
Feinwerktechnik GmbH
Modules and Devices for Input, Analysis,
Display, and Printing of Analog and Digital
Data.

Different Print Technologies

- 4 Needle-Plain Paper
- 8 Needle-Plain Paper
- Moving Thermal Print Head
- Fixed Thermal Print Line

GeBE Document No.:

SKI-E-303

German : SKI-D-302



Professional panel printer systems
in elegantly proportioned plastic housings
for 58 mm and 80 mm paper width

Errors and changes reserved. The technical data given are non-committal information and do not represent any assurance of certain features.
Our terms of payment and delivery apply. All rights reserved.

GeBE Elektronik und Feinwerktechnik GmbH

Beethovenstr 15 • D-82110 Germering near Munich • Germany

Phone ++49 (089) 89 41 41-0 • Fax: ++49 (089) 84 021 68

Printed 15. Jul 98 •

GeBE Dok.Nr.: Mulde System SKI-D-5/96-302

Application:

Producers of modern devices who rely on an up-to-date design don't want to do without comfortable standard solutions. The panel printers of the system 'Plastic Enclosure' present themselves in elegantly proportioned plastic enclosures which are especially appreciated in desk mounting applications. The simple installation cut-out assists the fitting in desk covers or standard housings. For front installation in compact devices, these printers are appreciated because of their small depth. Therefore, today you find printers in plastic enclosures used in cashier terminals as well as in portable measuring devices or switch cabinets. The selection of different print technologies and paper widths allows an optimal adaptation to the print result you require. Plain paper printers do their job in a rough environment, while thermal printer mechanisms with a moving head are designed for logging with a constant print quality and quiet printing.

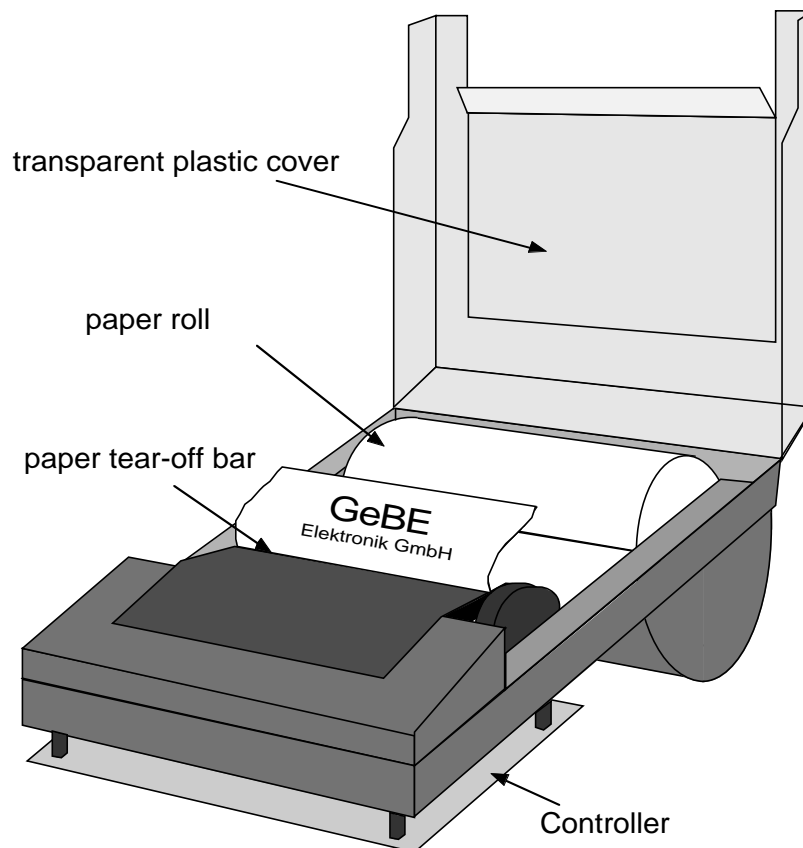
For a higher print speed and excellent text and graphic printouts, you should select a thermal printer that has a fixed print line.

Service friendly:

Service technicians will appreciate the easy handling on a hectic day.

For a convenient exchange of paper, you only need to fold back the transparent plastic cover, put the paper roll into the enclosure, and have the paper pulled into the mechanism by the paper transport. The thermal printers with a fixed print head are equipped with a practical paper auto-load function. Service is finished by simply closing the cover.

Due to this elegant construction, the very involved and timely inserting of paper through front slots is a thing of the past.



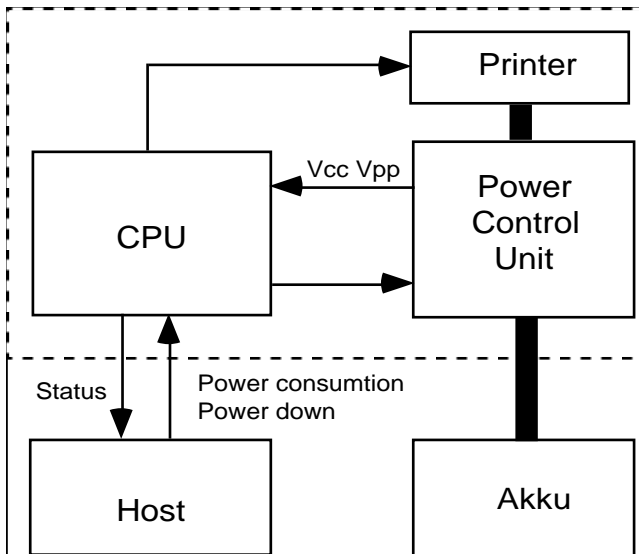
GeBE Elektronik und Feinwerktechnik GmbH

Beethovenstr 15 • D-82110 Germering near Munich • Germany

Phone ++49 (089) 89 41 41-0 • Fax: ++49 (089) 84 021 68

Power Supply:

This system offers the right solution for many fields of application. From the good value 5V operation through "Wide Power Range" supplies with cleverly thought-out power management for accumulator applications, up to the 24 V version, when a very high print performance is required.



Safe operation:

When we designed this printer system, we took special care to ensure that it was suitable for EMV, and in SMD technique. A permanent control of the operating voltage as well as the watchdog function used in all controller boards ensure safe operation.

Interface:

The standard printer has a serial RS232 interface. A TTL interface that allows the use of RS422/485 or current loop interface adapters is available as an option.

In addition, these very fast thermal printers with a fixed print line are equipped with a parallel Centronics interface. With matching cable connections, the printers can be directly connected to the usual PC interfaces.

To relieve the host systems, most of the printer types are equipped with a large data buffer.

The Different Print Technologies

Plain Paper Shuttle Printer: GPN-1950

- 4-needles horizontally side-by-side
- Print speed: app. 1 line/sec
- 8-needles horizontally side-by-side
- Print speed: app. 2.5 line/sec
- Prints line by line (app. 70 dpi)
- Text and graphics
- Easy exchange of ink ribbon due to ink cartridge
- No special paper necessary

Thermal Printer, Moving Head: GPT- 1250 / 1252

- Moving print head with 8 printing dots vertically one below the other
- Print speed: up to 0,8 lines /sec
- Prints text and graphics
- No ink ribbon necessary
- Constant print quality
- No loud impact of printing needles: quiet printing
- good value thermal printing

Thermal Printer with Fixed Head: GPT-3250 / 4850 / 3352 / 3852

- High print speed up to 62 mm/sec
- Prints line by line
- Highest print quality: (200 dpi)
- Several font sizes
- Print attributes can be mixed within the line
- Gray printing
- Inverse printing
- Graphics in simple picture quality
- Graphics and text can be mixed
- Bar code
- Quiet printing
- Robust, since only a few parts move

GeBE Elektronik und Feinwerktechnik GmbH

Beethovenstr 15 • D-82110 Germering near Munich • Germany

Phone ++49 (089) 89 41 41-0 • Fax: ++49 (089) 84 021 68

Fonts and resolution:

All printers are equipped with an IBM II character set. The print samples below show text and graphics printouts of the print technologies 'fixed print head' and 'moving print head' for comparable font sizes. For types with moving print head, the number of characters per line is determined by the printer mechanism that is used. The types that have a fixed print line are designed to print different font sizes and high-resolution graphics.

Bar code:

A bar code that can be read reliably should be printed with a resolution of at least >150 dpi. The thermal printers with a fixed print line are very good for this application.

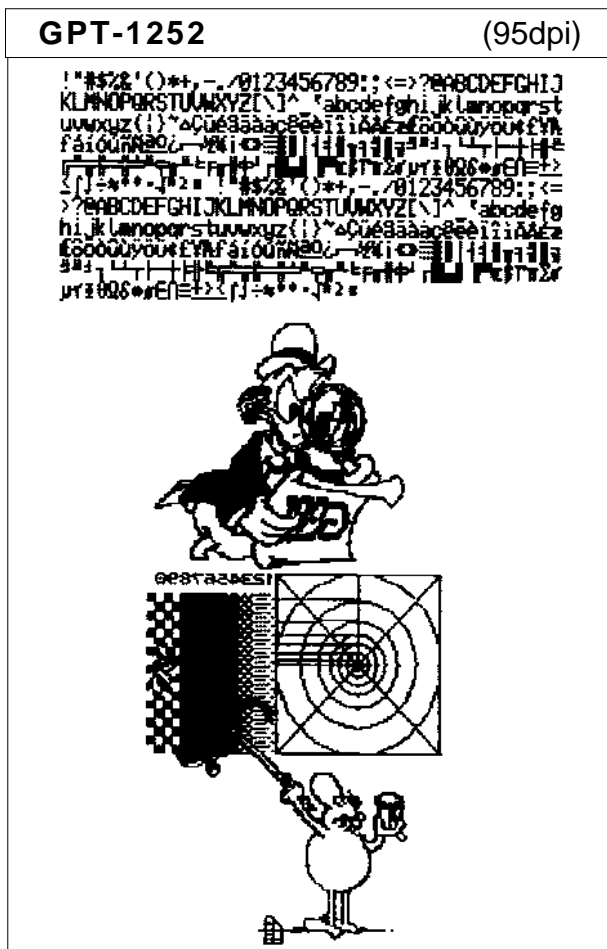
Two-ply paper:

All types can print on two-ply paper.

Printing official documents:

Nowadays, a standard thermal paper can be stored over a long period of time without any problems, without the printing suffering considerably. If the printing is required to be light-resistant, you have to use paper that is accepted for use in official documents. The thermal printing technology has developed rapidly within the last years. Today, grease-, water-, alcohol-, and light-resistant are available with a 7-year warranty.

Tell us about your application. We will be happy to assist you in selecting the right paper.



GeBE Elektronik und Feinwerktechnik GmbH
 Beethovenstr 15 • D-82110 Germering near Munich • Germany
 Phone ++49 (089) 89 41 41-0 • Fax: ++49 (089) 84 021 68

Self test and online diagnosis:

After power-on and during operation, self-diagnosis routines are monitoring the printer status continuously, and automatically report occurrences at the printer (e.g. paper end) to the host system.

Simple system inclusion:

As far as the printing technology allows, the devices are equipped with the same software platform, so that different types can be operated with the same host software. For controlling the data buffer and including the printers in the process of superior devices, synchronous characters can be sent specifically from the printer to the host.

Parallel and serial interfaces:

The high efficiency of a printer of this series is also based on the ability to receive data or give feedback through both interfaces at the same time, while carrying out the printing at the same time.

Convenient print attributes:

All printers have convenient print attributes for formatting text, and they all print pixel graphics.

Helpful stored text files:

Advertising text, small logos, initialization, or even macros can be filed in the often used stored text files, and fetched by command.

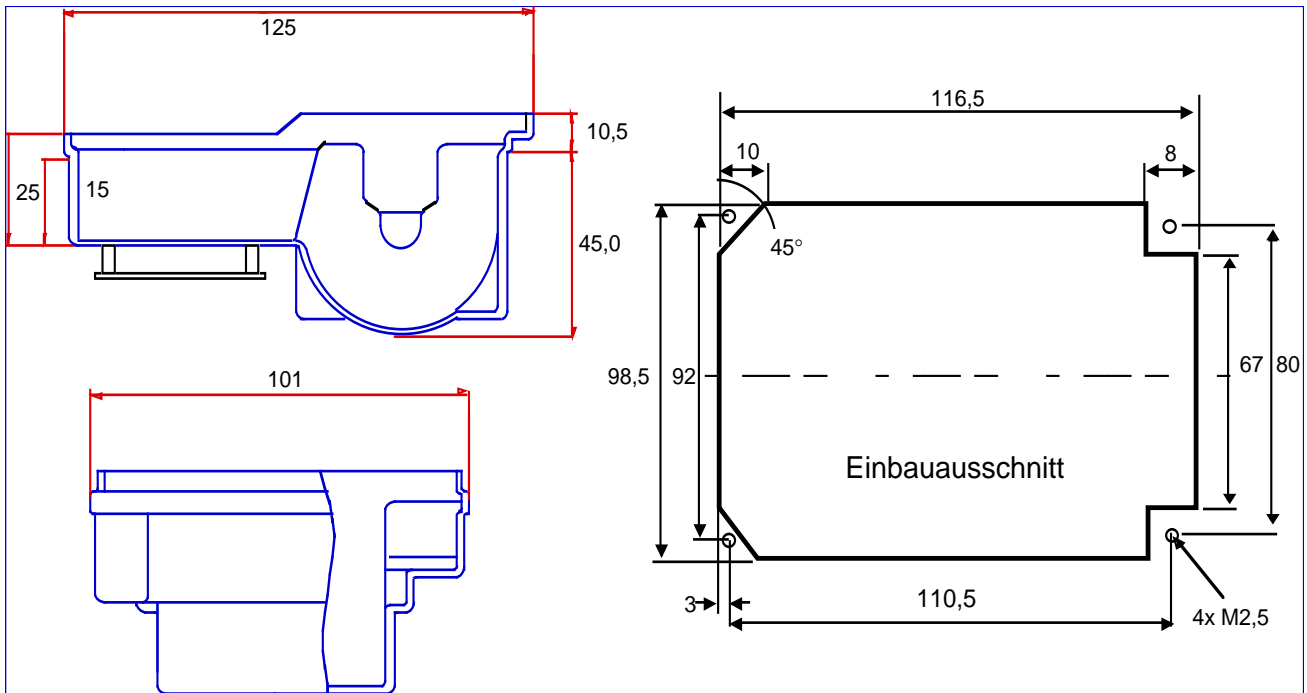
ESC-Sequences are controlling the printers (extract)

	Hex	GPN-1950
	02	• Print horizontal bars
	06	• Predefine bar pattern
	09	• Abs. TAB to char. raster r
	12	• Software RESET
	16	• Print horizontal dot line
ESC	(0)	• Print data mode
ESC	(1)	• Pixel graphics
ESC	(2)	• Print double width
ESC	(3)	• Print double height

CHR	GPT-1250 / 1252	GPT-3250/4850/3352/3852
@	• Software RESET	• Software RESET
A	• Erase print buffer	• Erase print buffer
B	• Print horizontal bars	• Print horizontal bars
C	• Activate auto cutter	• Activate auto cutter
D	• Print data mode	• Print data mode
E		• Power down
F	• Feed by f lines (10 dots lines)	• Feed by f lines
G	• Pixel graphics	• Pixel graphics
H	• Print double height	• Print double height
I	• Pixel graphics	• Print white on black
J	• Select character set	• Print bold
K		• Print italic
L		• Print underline
M	• Predefine bar pattern	• Print gray
N	• AbsoluteTAB to pixel position	• AbsoluteTAB to pixel position
O		• Print superscript
P		• Charakter set Nr. ...
Q		• Print letter-quality mode
R	• Abs. TAB to character raster	• Relative TAB to pixel position
S		
T	• Stored text file no. t	• Stored text file no. t
U		• Print subscript
V	• Serial feedback	• Serial feedback
W	• Print double width	• Print double width
X	• Inquiry of the 10% sensor	• Print complete line with graphics
Y	• Adjust blackening	• Adjust blackening
Z	• Print special character no. z	
(• Adjust power consumption
\		• Reverse paper feed by n lines

	GPN-1950-83 4 Needle Shuttle printhead	GPN-1950-84 4 Needle Shuttle printhead	GPT-1250 moving Thermohead	GPT-3250-82 fixed Thermohead	GPT-3250-83 fixed Thermohead	GPT-4250 fixed Thermohead	GPT-4850 fixed Thermohead	GPT-1252 moving Thermohead	GPT-3352 fixed Thermohead	GPT-3852 fixed Thermohead
Controller	GCN-1983	GCN-1984	GCT-1282	GCT-3282	GCT-3283	GCT-4282	GCT-4882	GCT-1282	GCT-3383	GCT-3883
print methode	24, 32 oder 40	24, 32 oder 40	24, 26 and 20	24,32,42 or 48	(24)32,42 and 48	24,32 and 42	24,32,42,48 and 61	40 , 42 and 36	36, 52, 64 and 82	36, 52, 64 and 82
fontsize	57.5 / 48 mm	57.5 / 48 mm	57.5 / 47 mm	57.5 / 48 mm	57.5 / 48 mm	57.5 / 48 mm	57.5 / 54 mm	79.5 / 68 mm	79.5 / 72 mm	79.5 / 72 mm
resolution Pt / mm	3, 4 or 5	3, 4 or 5	3.6	8	8	8	8	4,1	8	8
resolution dpi	76, 101 or 127	76, 101 or 127	92	203	203	203	203	104	203	203
points per line	144, 192 or 240	144, 192 or 240	166	384	384	384	432	280	576	576
printspeed lines/sec	0,7 0,5 or 0,4	2,5 1,9 or 1,5	0,8	7-12 = 22,5 mm/s	7-12 = 22,5 mm/s	21-32 = 60 mm/s	20 - 30 = 60 mm/s	0,6	15-22 = 45 mm / s	15-32 = 62 mm / s
voltage	5 V	5 V	5 V	5 V	5 V	5 V	24V	5 V	5 - 7 V	24 V
current: max.	3 A	3.6 A	3 A	3 - 8 A software	3 - 8 A software	3 - 8 A software	4 - 6.5 A software	3 A	1.5 - 13 A software	2.5 - 6 A software
current: idle	-	-	< 30 mA	-	< 50 µA	< 5mA or < 50µA	-	< 30 mA	< 1 mA	-
MCBF	5 x 10 ⁵ lines	1 x 10 ⁶ lines	5 x 10 ⁵ lines	30 Km	30 Km	100 Km	100 Km	5 x 10 ⁵ lines	30 Km	30 Km
dimensions l x w x d	127x101x61 mm	127x101x61 mm	127x101x61 mm	127x101x61 mm	127x101x61 mm	127x101x61 mm	127x101x61 mm	165x119x64mm	165x119x64mm	165x119x64mm
features										
Power Down	-	-	Idle Mode	-	yes	yes	-	Idle Mode	yes	-
Centronics	-	-	-	yes	yes	yes	yes	-	yes	yes
Auto Load	-	-	-	yes	yes	yes	yes	-	yes	yes
Paper end	-	-	-	yes	yes	yes	yes	-	yes	yes
Watch	ext. Modul	ext. Modul	-	-	ext. Modul	-	ext. Modul	-	-	ext. Modul
Text module	-	-	yes	user	user	user	user	yes	user	user
Selftest	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Watchdog	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Synchron character	-	-	yes	yes	yes	yes	yes	yes	yes	yes
Barcode	-	-	-	-	on request	yes	on request	-	code 39 / 2 aus 5	irpode 39 / 2 aus 5
Text / Datamode	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Adjust blackening	-	-	yes	yes	yes	yes	yes	yes	yes	yes

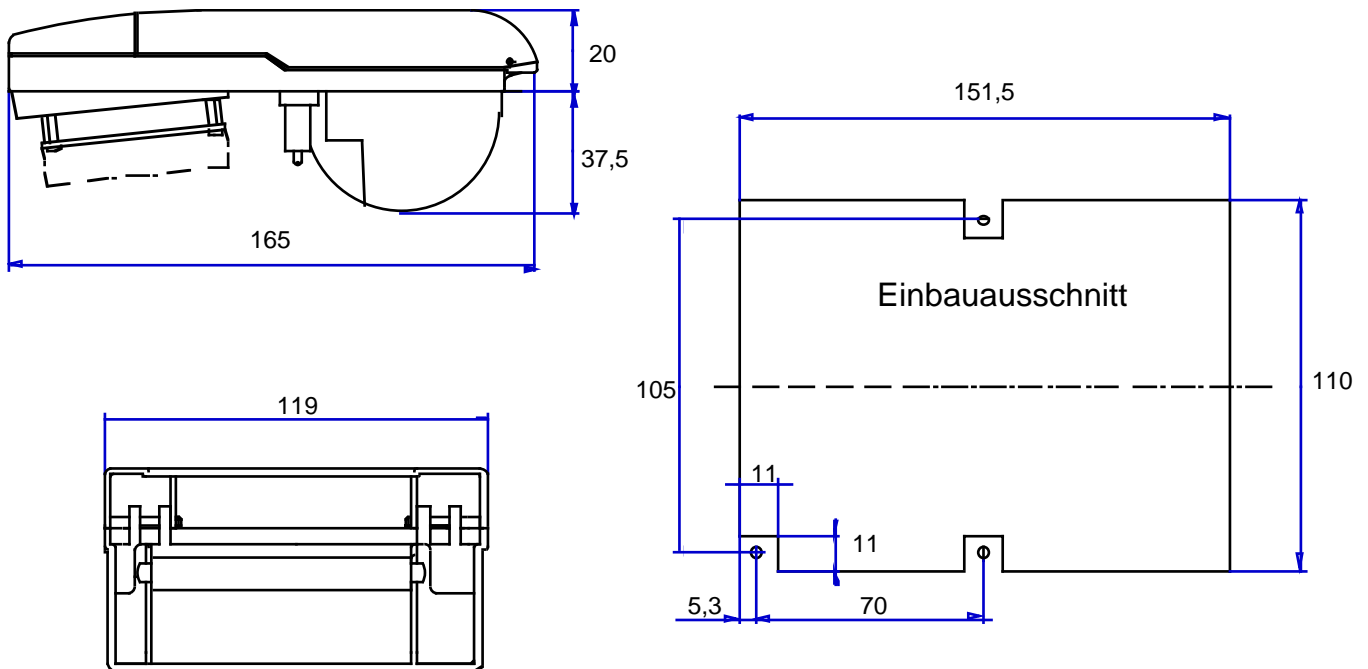
Dimensions and Cut-Out of the M58 Plastic Enclosure



Standard colors: black or light gray : similar to RAL 7044

(other colors on request)

Dimensions and Cut-Out of the M80 Plastic Housing



Standard colors: arav. similar to RAL 7035

(other colors on request)

GeBE Elektronik und Feinwerktechnik GmbH

Beethovenstr 15 • D-82110 Germering near Munich • Germany

Phone ++49 (089) 89 41 41-0 • Fax: ++49 (089) 84 021 68

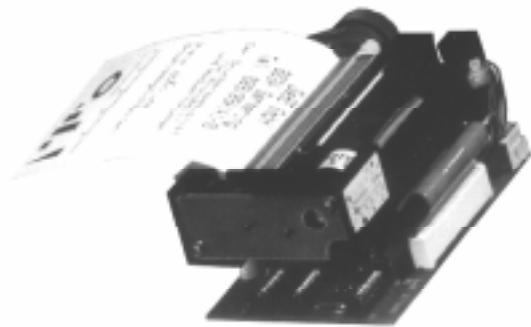


Front Panel Printers System Z1

**Different Print Technologies
Several Installation Variants**

Printer System VARIO

**Different Print Technologies
with 58, 80 or 112 mm Paper Width**



Printer Mechanisms and Controller Boards

**Different Print Technologies
Paper Width from 45 mm up to 210 mm**

**Special Printers
Keyboards and Terminals
Special Developments
Manufacturing**

GeBE Elektronik und Feinwerktechnik GmbH
Beethovenstr 15 • D-82110 Germering near Munich • Germany
Phone ++49 (089) 89 41 41-0 • Fax: ++49 (089) 84 021 68