PRODUCT MARKING

Print module

PX-Series The Executive Class

Edition 5

cab Produkttechnik

Precision - Made in Germany

For more than 30 years now cab has been developing and manufacturing label marking systems for industry, commerce and services. Our ultimate ambitions are always best quality and best technical solutions. Our device: “Always as good as possible” instead of “Only as good as necessary”.

The constant requirements, duties and responsibilities of our customers and partners demand innovative ideas and form tomorrow´s products.

Our development and the entire manufacturing -according to ISO 9001- is based in Germany. Due to the fact that we manufacture the better part of our components with the latest manufacturing machines und production processes ourselves, we can ensure a continuous quality control and offer – on a competitive basis- to the international market.

Due to our wide experience, our high aims und our customers we have become an international accepted and leading manufacturer in our branch of trade.

More than 230 employees in Germany, five cab overseas branches and 350 fully-qualified distributors in nearly 60 countries are helping us to strengthen our position within the next years.

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The specifications are according to our current technical knowledge. They are subject to change.

ENERGY STAR

Environmentally sensitive
Energy-saving
Durable

Primary features

Ultimate ambitions of construction:
High reliability, easy handling, short maintenance and repair.

It is made for fully automatic printing and labelling in a superior industrial environment. The PX print modul prints and dispenses in every installation position and can be integrated in every production line.

The print mechanism and its function units are made of buckling resistant cast materials and are perfectly harmonised in their form and their functions.

All PX modules are available in either left-handed or right-handed printing with a printing resolution of 200, 300 or 600 dpi.

Spare and wear parts are easy to change.

Transfer ribbons are applicable to a length up to 600 m. The print module can be equipped optionally with a ribbon-saver option.

With the high-tech 32-bit processor, 64 MB RAM and 8 MB flash memory the data process happens in split seconds. The additional memory card on the operation panel or on the CPU stores texts, graphics or specific settings.

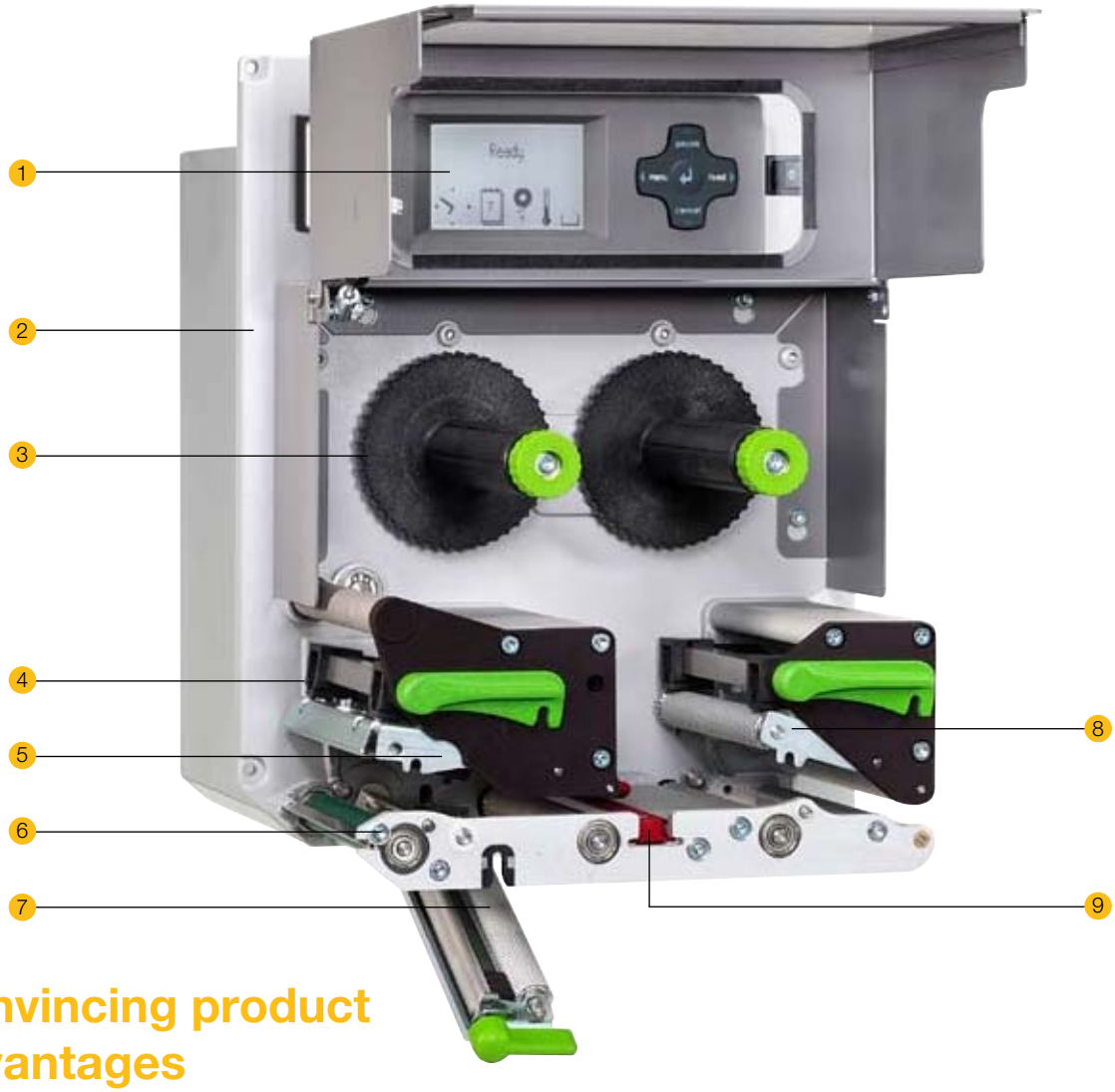
All required interfaces like Ethernet, USB or digital IO-interface are factory installed.

Many software tools for direct programming, design and administration are available.

The mechanic installation dimensions are compatible to the systems from Zebra, Sato, Datamax etc.

4 Technical details

Perfection to the detail



Convincing product advantages

1. Operation panel
The large display with white backlight offers best readability.

User-friendly navigator pad with interactive menu navigation.

CF-Memory card slot for storage of label formats, fonts, texts, graphics and data bases.

Additional USB-slot for service keys, keyboard, scanner or USB-memory card.

An additional external operation panel can be attached via one of the three USB-interfaces.

2. Solid metal cover
It is made of dye-cast aluminium. All devices are assembled to it.

3. Ribbon rewinder and unwinder
The threepart tightening axles with adjustable diameter allow a fast and easy ribbon exchange. Small ribbons can be fixed in every position.

4. Easy adjustment for the printout
The printed design is set up by moving the pinch roller.

5. Print head with ribbon saving function
In only a few steps the print heads can be replaced.
The print head can be lifted up while dispensing or while label back-feed.

6. Roller replacement
For cleaning or replacement the roller can be easily loosened.

7. Easy replacement of material
The labels are inserted edgewise up to the end position. The print head and the pinch rollers are locked with the levers.

8. Back-feed system
After printing the next label can be back-fed to the label edge.

9. Photo cell for transmitted light and reflex
For label positioning and identification of the end of material.
Detection up to 60 mm.

All interfaces built in

■ Standard
☐ Option

PC/SPS interfaces

■ **1. Serial RS232 C** interface up to 230.400 Baud

■ **2. USB 2.0 High Speed Slave** interface

☐ **3. Parallel Centronics** acc. IEEE 1284
The data from the Centronics interface are converted onto the USB Full Speed interface.

☐ **4. Serial RS422** for long distance communication
Serial RS485 for networking up to 25 printers.

☐ **5. Label selection box**
Up to 16 different input signals for automatic loading and printing of labels from the memory card.

Peripherical connection

■ **9.** Two **USB-Master** interfaces to connect external operation panel, keyboard, scanner

■ **10.** Slot **for memory card CompactFlash Type I** up to 2 GB

■ **11. Digital I/O-interface** 25-pin SubD plug

Input DC isolated 24 Volts (opto coupler)
1. Label feed
2. Start of print job
3. Label issued
4. Label in presentation position
5. Reset (deletes the print job)

Output DC isolated up to 24 Volts (solid state relais)
1. Ready for operation
2. Print job available
3. End of print job
4. Label in present position
5. Error
6. Sensor: end of label
7. End of label
8. Sensor: end of ribbon
9. End of ribbon
10. Signal freely programmable
11. Signal freely programmable

☐ **Sensor: end of label**

☐ **Indicator lampe**
- Ready for operation
- Warning: ribbon or labels
- error print module or applicator

Network connection

■ **6. Ethernet 10/100 Base T**- interface with TCP/IP protocol Printing with LPR/LPD, Raw IP or FTP.
IP adress can be set manually or obtained via DHCP.
Status information and set up via internet browser.
FTP for firmware updates and PC-card Type II/CompactFlash administration.
Error messages can be sent via e-mail or SNMP.
Time and date synchronisation through time server

■ **7.** Slot for **Wireless LAN**-card
or **PC-Card Typ II** (PCMCIA)

☐ **8. WLAN-card IEEE 802.11 b/g** for wireles network connection, dependend on chip set
IEEE 802.11 b: 11 MBit/s, 2,4 GHz Band
IEEE 802.11 g: 54 MBit/s, 2,4 GHz Band

Stand-Alone operation without PC

Complete labels can be created on a PC with a labelling software program such as cablabel R2, Codesoft or Easylabel. It will be saved on a CompactFlash card in the printer.

Select these labels from the printer with a keyboard. Add variable text, database values and graphics, then print out the requested labels.

Additionally data from scanners or e.g. scales can be transmitted.

6 Technical data

■ Standard □ Option

1. Print head	PX4+			PX4.3+		PX6+
Printing method Transfer	■	■	■	□	□	■
Thermal direct	-	-	-	■	■	■
Print resolution dpi	203	300	600	203	300	300
Print speed up to mm/s	200	200	100	200	150	200
Print width up to mm	104	105.6	105.6	104	108.4	162.6
2. Labels						
Material	Thermal- and standard paper, plastic foils PE, PP, PVC, PA, PI					
Material thickness (Label + carrier tape) mm / Weight g/m²	0.55 - 0.35 / 60 - 160					
Liner width mm	25 - 120					50-180
Label width mm	10 - 116					50-176
Label height mm	6 - 1.000					
3. Ribbon						
Ink	inside or outside					
Roll diameter up to mm	106					
Core diameter mm	25					
Ribbon length variable up to m	600					
Width up to mm	114					165
5. Dimensions printer						
Weight kg	8					12

6. Label sensor	
See-through/Reflective sensor from below, adjustable mm	4 - 60
7. Electronics	
Processor high speed 32 Bit ColdFire/speed MHz	266
RAM MB	64
ROM MB Flash	8
Slot for CompactFlash card Type I up to 2 GB	■
Slot for Cardbus / PC-Card Type II	■
Real-time clock, Printout of date and time	■
8. Operation panel	
Digits/LEDS iluminated while operating	Pause, Feed, Cancel, Menu, 4 x Cursor
LCD-Graphics Display Width x Height in mm	60 x 40
LCD-Graphics Display Text lines/characters	4 / ca. 20
Slot CompactFlash Type I up to 2 GB	■
9. Interfaces	
Parallel centronics bi-directional acc. IEEE 1284	□
Serial RS 232 C 1.200 up to 230.400 Baud/8 Bit	■
USB 2.0 High Speed Slave for PC connection	■
Ethernet 10/100 Base T, LPD, RawIP-Printing, ftp-Printing, DHCP, HTTP, FTP, SMTP, SNMP, NTP, Zeroconf, mDNS	■
Serial RS422, RS485 1.200 up to 230.400 Baud/8 Bit	□
WLAN card 802.11b/g	□
Wireless bridge 802.11b	□
USB Master for keyboard and scanner	3x ■
Digital I/O interface	■
10. Monitoring	
Stop printing if	End of ribbon, end of label, pinthead open, retraction system open
11. Settings	
Country and language settings BE, BG, CH, CN, CZ, DK, ES, FI, FR, GR, HR, HU, IR, IT, LT, MK, MX, NL, NO, PL, PT, RU, RS, SE, SI, TH, TR, UK, US, ZA system settings, print parameters, interfaces, security	

12. Test routines	
	System diagnosis of memory and print head when switched on, short status, status print, font list, device list, profile of print head, profile of label, test grid, monitor mode.
Status reports	Extensive status print with information about instrument setting, for example print length counter, runtime counter. Request of the machine status via software command. Detailed status messages on the display, for example network error-no link, barcode error etc.
13. Fonts	
Font types	5 Bitmap fonts incl. OCR-A, OCR-B and 3 Vector fonts Swiss 721, Swiss 721 Bold and Monospace 821 available internally, loadable TrueType fonts.
Character sets	Windows 1250 up to 1257, DOS 437, 737, 775, 850, 852, 857, 862, 864, 866, 869, EBCDIC 500, ISO 8859-1 up to -10 and -13 up to -16, WinOEM 720, UTF-8, Macintosh Roman, DEC MCS, K0I8-R. All West and East European latin, cyrillic, greek, hebrew and arabic caracters are supported. Optional Chinese (simplified Chinese)

Technical data 7

■ Standard ☐ Option

13. Fonts		
Bitmap fonts	Size of width and height 1 - 3 mm zoom 2-10 Orientation 0°, 90°, 180°, 270°	
Vector-/ TrueType fonts	Size of width and height 0.9 - 128 mm variable zoom , Orientation 360° in steps of 1°,	
Font formats	Bold, italic, underlined, outline, negative, grey, vertical, depending on character fonts	
Font width	Variable	
14. Graphics		
Graphic elements	Line, arrow, box, circle, ellipse, filled and filled with fading	
Graphic formats	PCX, IMG, BMP, TIF, MAC, GIF, PNG	
15. Codes		
Lineare Barcodes	Code 39, Code 93 Code 39 Full ASCII Code 128 A, B, C Codabar EAN 8, 13 EAN/UCC 128 EAN/UPC Anhang 2 EAN/UPC Anhang 5 FIM HIBC	Interleaved 2/5 Ident- and Lead-code of german Post AG JAN 8, 13 MSI Plessey Postnet RSS 14 UPC A, E, E0
2D-Codes	Aztec, Codablock F, Data Matrix, PDF 417, Micro PDF 417, UPS Maxicode, QR-Code, RSS 14	
	All codes variable in height, module width and ratio. Orientation 0°, 90°, 180°, 270°. Optionally with check digit, printed characters and Start/Stop code, depending on code type.	

16. Software		
Programming	J-Script direct programming	■
	abc-Basic Compiler	■
	Database Connector	☐
System diagnosis/ Administration	printer monitoring	■
	Network Manager	☐
cab Label software	cablabel R2 Lite	■
	cablabel R2 Pro	☐
More Label software	Easylabel, Codesoft, Nicelabel, Bartender, Label Matrix, Labelview	☐
Windows driver	98, ME, 2000, 2003, XP Windows NT from version 4.0	■
Mac driver	OS X printer driver from version 10.3	■
Linux driver	Testet with Suse 9.0, CUPS based	■
17. Operation data		
Power supply	100 - 240 V ~ 50/60 Hz, PFC	
Energy consumption	max. 250 W	
Operation temperat.	10 - 35°C	
Humidity	30 - 85% not condensing	
Approvals	CE, FCC class A, CB, CCC	
18. Optionen		
Ribbon saver module		☐
RFID Read-write module		☐

The current specifications are according to our technical knowledge. They are subject to change.

Accessories 7

External panel

Connection: USB
Button: Pause, Feed, Cancel, Menu, Enter, 4 x Cursor
Display: 60 x 40 mm
Slot for: CF-card Type I
Interface: USB Master

Numerical keyboard

Connection: USB
No. of keys: 19
L x W mm: 120 x 76

Compact keyboard

Connection: USB
No. of keys: 86
L x W mm: 282 x 132
Cherry Classic Line G84-4100 LCM

Standard keyboard

Connection: USB
No. of keys: 115
L x W mm: 460 x 192
Cherry G83-6504 LAD

Memory card

CompactFlash Type I

Label formats, fonts, texts and graphics can be saved. It can be accessed from the printer or from the PC.

On this account the operation and the compliance with CE-standards is only warranted by using cab-made materials or materials recommended by cab.

8 Software tools

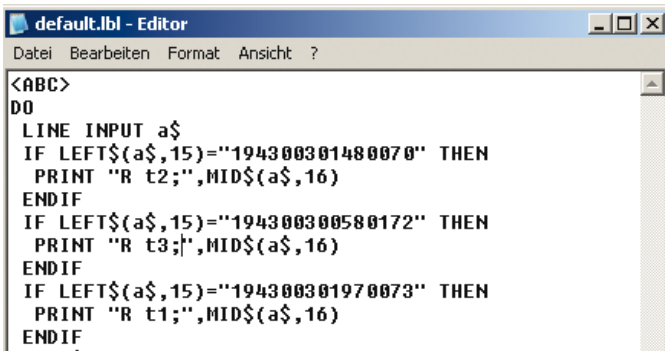
Printer Control

Direct programming with J-Script

J	**Job Start**
H 100	**Speed (100 mm/s)**
O R	**Orientation rotated by 180°**
S l1;0,0,68,70,100	**Size of label (100x68 mm, gap 2 mm)**
T 10,10,0,5,pt20;sample	**Text object/font: Swiss bold, 20 pt**
B 10,20,0,EAN-13,SC2;401234512345	**Barcode EAN 13, size SC 2**
G 8,3.5,0;R:30,9,0.3,0.3	**Graphic, box 30 x 9 mm, Line strength 0.3 mm**
A 1	**Number of labels (in this example 1)**

The printer language is easy to understand and integrate into your host system. Linkage of variable data with host application. Label design, graphics and fonts are recorded on the compact flash card. The host computer sends only the variable data to the printer.

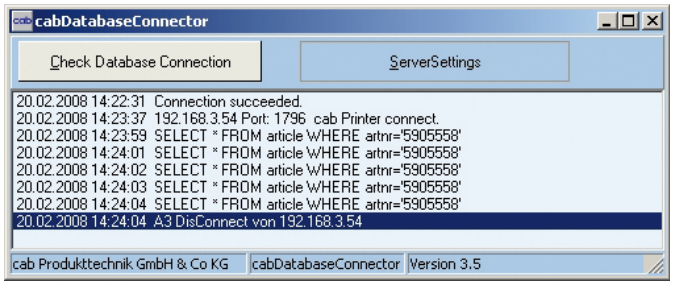
abc - Basic Compiler



As an integrated element of the firmware it enables the printer to process data via BASIC programming before being transmitted to print editing. Thereby external printer languages can be replaced or data from other systems, e.g. SPS, can be transferred to be printed on different label sizes.

Database Connector

The database connector enables stand-alone printers to link up data from a SQL-compatible database and to print. Data can be rewritten and modified simultaneously to the printing process.



Monitoring

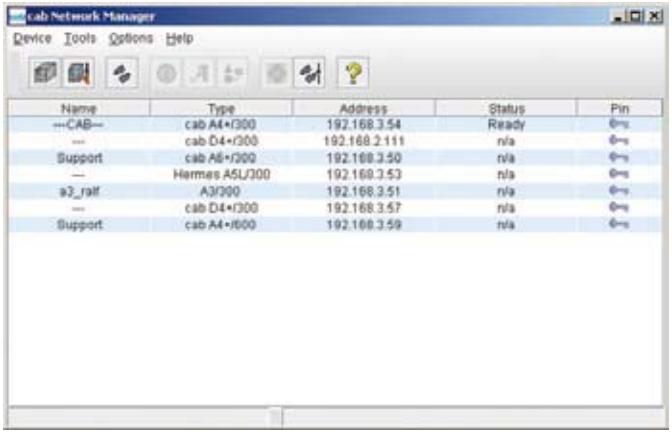
Printer monitoring with Intra- and Internet

The integrated HTTP- and FTP-Server enables, with standard programs like web browser or FTP-clients, the print monitoring, configuration, the firmware-update and the administration of the memory card. Status signals, warning or error signals are sent to users or administrators either as email or SNMP-datagram via SNMP- and SMTP-clients.

Administration

Network Manager

The cab network manager enables the user to govern several printers within the network at the same time. It supports monitoring, configuration, firmware updates, memory card, datasynchronization and PIN-administration centrally.



Windows driver

Create and print your label with a Windows program for ex. MS Word, Excel, Access, Works, Corel Draw etc.

Windows printer driver are provided for 2000, XP 32/64 bit, 2003 32/64 bit, Vista 32/64 bit.

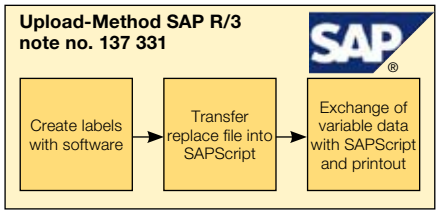
Mac OS X-Treiber

For MAC OS X cab offers a CUPS based printer driver.

Linux-Treiber

For LINUX cab offers also a CUPS based printer driver.

Integration into SAP R/3



cab developed together with SAP the "replacefile" application. This is a simple way to run cab printers with SAPScript out of SAP R/3.

The software to create labels

Perfect labels need optimized text fonts. cab offers a large number of bitmap and vector fonts. Height and width of the font can be scaled and the object can be positioned and arranged. Additional true type fonts can be downloaded to the memory card. Most of the country specific codepages are supported.

● cablabel R2 Lite

Extensive standard label software. You get it - free of charge - with every cab printer.

● cablabel R2 Pro

Allows of the embedding of diverse data bases into a label. An assistant supports the creation of UCC/EAN 128 barcodes.

Wether simple texts, barcodes, graphics and the connection of databases, cablabel R2 is most flexible - all in 24 languages.

MDI (Multiple Document Interface) helps to open and handle several labels at the same time. Objects can be copied, moved and inserted into another label.

cablabel R2 provides its own drivers with greater response to all different functions of cab printers.

Take advantage of using the multiple possibilties of cablabel R2.

Additional label Software

The transfer printers and print and apply systems can be easily controlled with Codesoft, Bartender or NiceLabel.

cablabel R2	Lite	Pro
32-Bit Platform-compatibility Windows 2000 SP4, XP Professionnel SP2 Server 2003 SP2 and Vista 32 bit	■	■
Country specific BE, BG, CH, CN, CZ, DE, DK, ES, EE, FR, FI, GB, GR, HU, HR, IT, IL, JP, KR, LT, LV, MK, MX, NO, NL, PT, PL, RU,	■	■
Label samples	■	■
Online document. with tutorials	■	■
Multi-level Undo	■	■
number of levels	1	40
Graphic format import	■	■
Color support	■	■
Color graphic reduction		■
Text art		■
TrueType font	■	■
Graphic barcodes	■	■
numbers	9	37
Native printer barcodes	■	■
Hidden (not printable) objects		■
Label preview	■	■
Graphics preview	■	■
Grid view/print		■
OLE-Client		■
Windows driver support		■
Control of printers	1	99
Support of net printer (TCP/IP)	■	■
Bi-directional communication to the printer		■
Stand-alone		
Printing to file	■	■
Font Downloader	■	■
Database		
Database Manager Access, DBF		■
ASCII, ODBC, OLEDB		■
Variables		
Flexible date and time stamping	■	■
Host of date and time with Date offset		■
Printing counter	■	■
Host counter		■
Variable graphic images		■
Free variables		■
Global files		■
Decimal value formating		■
Basic formula		■
User input fields		
Text alignment		■
Definition input format		■
Minimum input length		■
Selection of default values		■
Automatic input		■
Extras		
UCC/EAN 128 and Maxicode Assistent		■

10 Delivery program

Print module

Part No.	Description
5956102	Print module PX4L/200
5956103	Print module PX4L/300
5956106	Print module PX4L/600
5956112	Print module PX4R/200
5956113	Print module PX4R/300
5956116	Print module PX4R/600
5956142	Print module PX4.3L/200
5956143	Print module PX4.3L/300
5956152	Print module PX4.3R/200
5956153	Print module PX4.3R/300
5956123	Print module PX6L/300
5956133	Print module PX6R/300

59561xx.202 Print module PX../xxx with ribbon saver module (Extension)

Content of delivery:
Label printer, power supply, operation manual, Windows driver, cablabel R2 Lite, Service manual on CD-ROM

Spare parts

5954081.001	Printhead 4/203
5954072.001	Printhead 4/300
5954077.001	Printhead 4/600
5954085.001	Printhead 4.3/203
5954089.001	Printhead 4.3/300
5954106.001	Printhead 6/300

5954180.001	Driver roller DR4
5954245.001	Driver roller DR6

Interfaces

5561041 WLAN-card 802.11 b/g

5954200 Parallel Centronics

5954201 Serial RS422/RS485

5954191 Labels selection box

5561034 Wireless Bridge with connecting cable and power supply

5550818 Connecting cable RS232 C 9/9-pin, Lenght 3 m

5901616 Connecting cable USB Lenght 3 m

Accessories

5954380 External operation panel

5917909 Numerical PC keyboard USB

on request Compact keyboard USB, Cherry Classic Line G84-4100 LCM

on request Standard keyboard USB Cherry G83-6504 LAD

5561043 Memory card CompactFlash Type 1

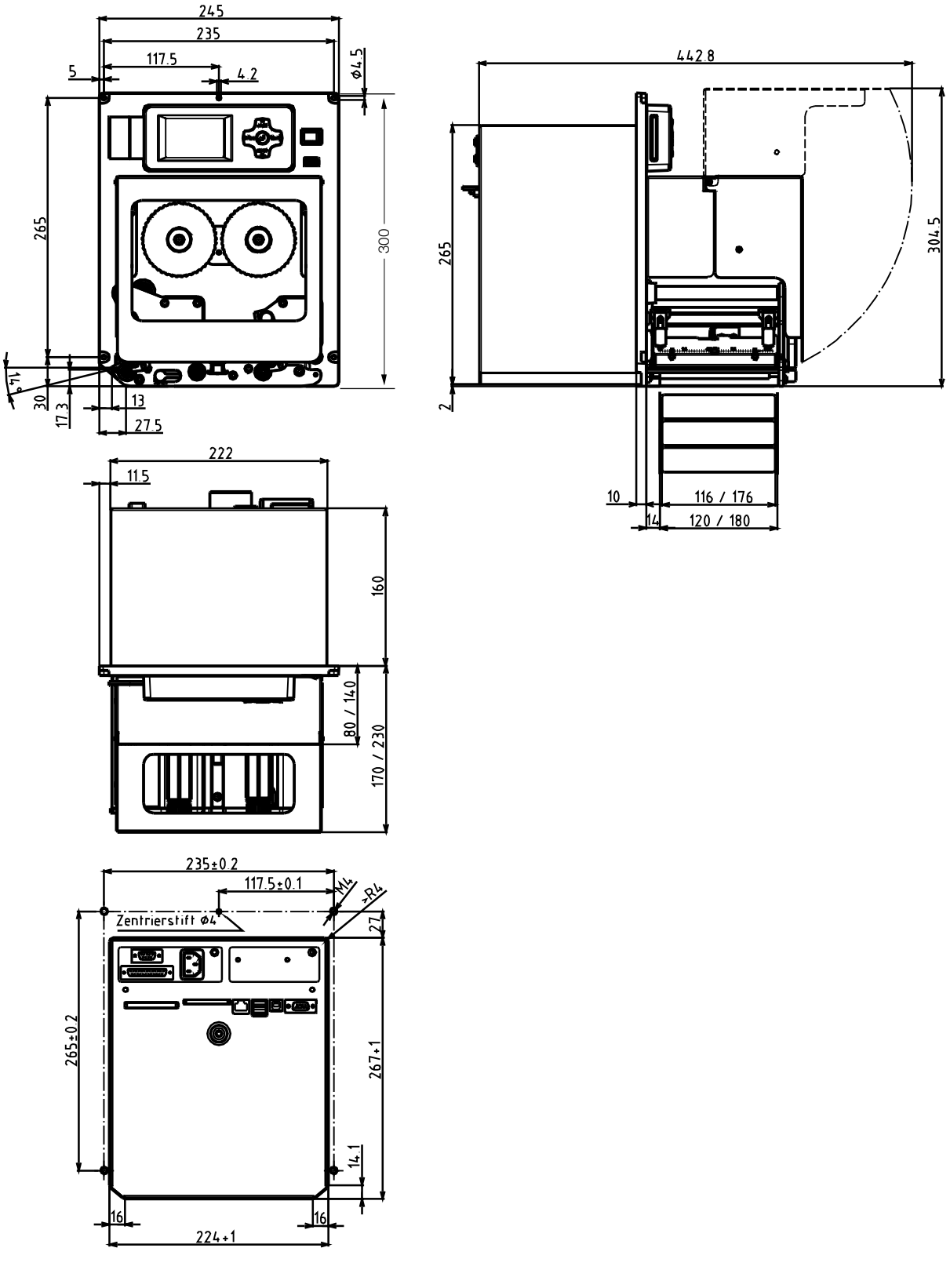
Software

5580212 Database Connector

5580215 Network Manager

5580220 Label software cablabel R2 Lite
5580221 Label software cablabel R2 Pro

9008486 Programming manual


245
235
117.5
5
4.2
Φ4.5
265
300
14°
30
17.3
13
27.5
442.8
265
304.5
2
10
116 / 176
14
120 / 180
222
11.5
160
80 / 140
170 / 230
235±0.2
117.5±0.1
M4
R4
Zentrierstift Φ4
27
265±0.2
267+1
14.1
16
16
224+1

Product marking

cab product range

Transfer printer
MACH4

Transfer printer
A+ series

Print and Apply
Hermes A

Print engine
PX-series

Transfer printer e4

Inkjet Colour Printer
LX 810

Labels / Ribbons

Label software

Label dispenser
HS150

Scanner and MDE

Laser Marking System
FL-series

Safety housing
with accessories

Germany
cab Produkttechnik
GmbH & Co KG

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