



Print module

PX-Series The Executive Class

Edition 1
International

Precision - Made in Germany



For more than 30 years now cab has been developing and manufacturing label marking systems for industry, commerce and services. The constant requirements of changing markets demand innovative ideas and form tomorrow's products.

Our experience and our aim to make our printers more simple in operation have made cab to a leading manufacturer world-wide.

Made in Germany with a large vertical range of manufacture our quality system is subject to DIN ISO 9001 - from receiving inspection up to consignment.

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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 1000 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.

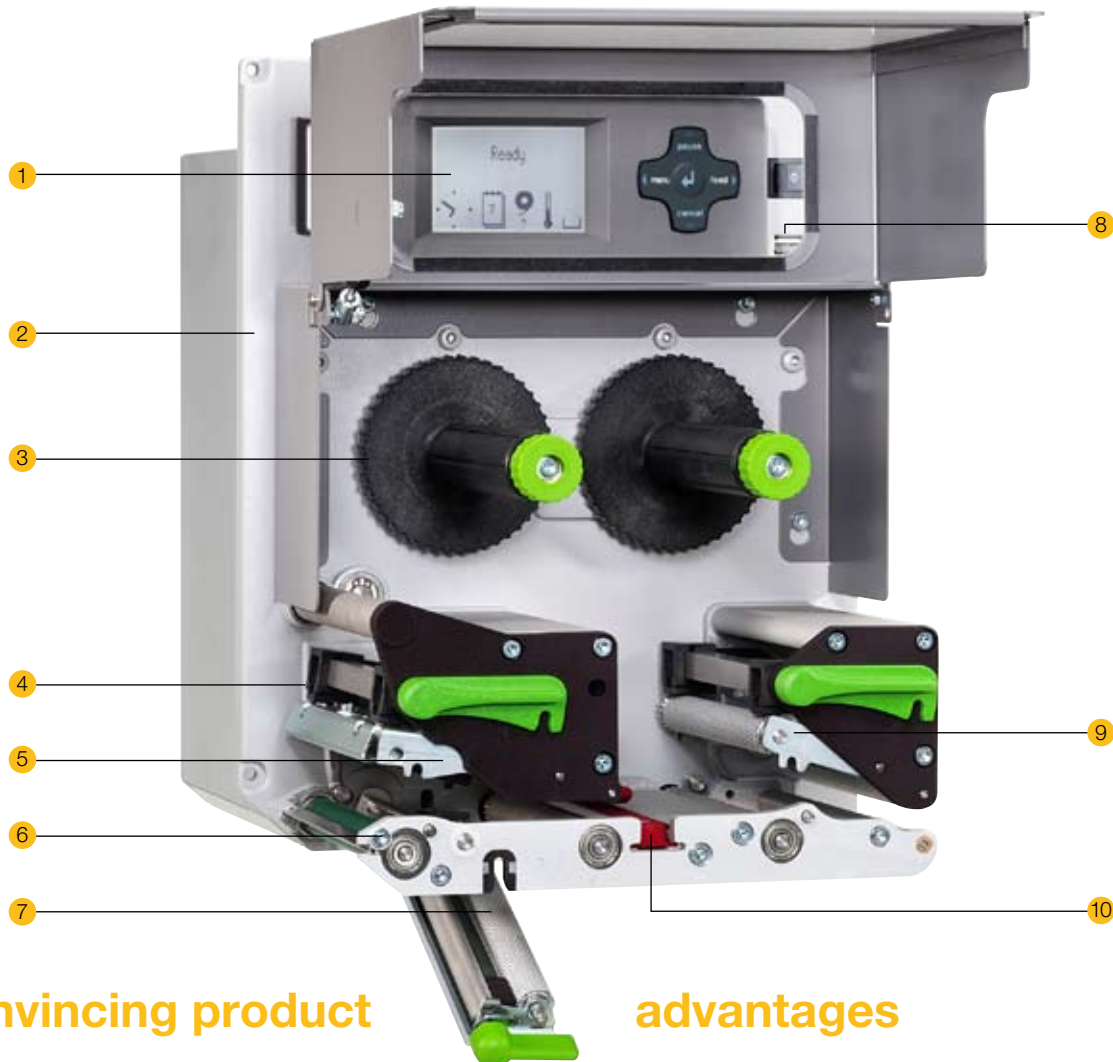
All required interfaces like Ethernet, USB or digital IO-interface are factory installed.

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

1. Operation panel

The large display with white backlight offers best readability.

User-friendly navigator pad with interactive menu navigation.

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

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.

advantages

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. Additional USB-slot at the front

For the service key, a key pad and, respectively, a barcode scanner.

9. Back-feed system

After printing the next label can be back-fed to the label edge.

10. 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.
PC connection: 25-pin SubD plug
Printer connection: USB Master
- **4. Serial RS422** for long distance communication
Serial RS485 for networking up to 25 printers.
Serial interface: 25-pin SubD plug
Printer connection: USB Master
- **5. Label selection box**
Up to 16 different input signals for automatic loading and printing of labels from the memory card.
Serial interface: 25-pin SubD plug
Printer connection: USB Master



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/Compact-Flash administration.
Error messages can be sent via e-mail or SNMP.
Time and date synchronisation through time server
- **7. Wireless LAN** connection via plug-in-card
- **8. WLAN-card IEEE 802.11 b/g** for wireless 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



Peripheral connection

- **10.** Three **USB-Master** interfaces to connect external operation panel, keyboard, scanner
- **11. Digital I/O-interface** 25-pin SubD plug
Input DC isolated 24 Volts (opto coupler)

1. Label feed	4. Label in presentation position
2. Start of print job	5. Reset (deletes the print job)
3. Label issued	

Output DC isolated up to 24 Volts (solid state relai)

1. Ready for operation	7. End of label
2. Print job available	8. Sensor: end of ribbon
3. End of print job	9. End of ribbon
4. Label in present position	10. Signal freely programmable
5. Error	11. Signal freely programmable
6. Sensor: end of label	

The following peripheries and electronic devices can be offered on request:
Sensor: end of label
Indicator lamp
Periphery connector for applicators

Stand-Alone operation without PC

- Label formats are discarded on the memory card in the printer. It may be used either a CompactFlash- or a PC-Card.
- The labels are called via a standard key pad with USB-connection. The variable text is input or changed, shown in the display and then printed.
- **15.** Slot **CompactFlash-card** to store fixed data
 - **7.** Slot for **PC-Card Type II** (PCMCIA)
 - **10.** **USB-Master** interface for keyboard, scanner

6 Technical data

The data for all devices

■ Standard □ Option

	PX4+			PX4.3+		PX6+
1. Print head						
Printing method Transfer	■	■	■	□	□	■
Thermal direct	-	-	-	■	■	■
Print resolution dpi	203	300	600	203	300	300
Print speed up to mm/s	300	300	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 mm / Weight g/m ²	0.07 - 0.25 / 60 - 160					
Liner width mm with a thickness 0.07 - 0.35 mm	25 - 120					50-180
with a thickness 0.25 - 0.35 mm	10 - 120					-
Label width mm	4 - 116					50-176
Label height mm	5 - 2000					6 -2000
3. Ribbon						
Ink	inside or outside					
Roll diameter up to mm	102					
Core diameter mm	25					
Ribbon length variable up to m	1000					
Width up to mm	114					165
5. Dimension 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 1 GB	■	
Slot for Cardbus / PC-Card Type II	■	
Real-time clock, Printout of date and time	■	
8. Operation panel		
Digits/LEDS illuminated while operation	Pause, Feed, Cancel, Menu, Enter, 4 x Cursor	
LCD-Graphics Display	Width x Height in mm	60 x 40
	Text lines/characters	4 / ca. 20
Slot CompactFlash Type I up to 1 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, DHCP, HTTP, FTP, SMTP, SNMP, Time client	■	
RS 422, RS 485 1.200 up to 230.400 Baud/8 Bit	□	
WLAN Karte 802.11b/g	□	
Wireless Bridge 802.11b	□	
USB Master for keyboard and scanner	3x ■	
Digital I/O interface	■	
10. Settings	Country specific (Arabisch, CZ, D, DK, E, F, GB/USA, H, I, IL, N, NL, P, PL, RUS, S, SF, TR), system settings, print parameter, interfaces, security.	
11. Monitoring		
Stop printing if	End of ribbon end of label printhead open Rückzugsystem open	

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, KOI8-R. All West and East European latin, cyrillic, greek, hebrew and arabic characters are supported. Optional chinese (simplified chinese)	

■ 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 Interleaved 2/5 Code 39 Full ASCII Ident- and Lead- Code 128 A, B, C code of german Codabar Post AG EAN 8, 13 JAN 8, 13 EAN/UCC 128 MSI EAN/UPC Anhang 2 Plessey EAN/UPC Anhang 5 Postnet FIM RSS 14 HIBC 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 cha- racters and Start/Stop code, depending on code type.

16. Software		
Programming	J-Script direct programing	■
	abc-Basic Compiler	■
	Database Connector	□
System diagnosis/ Administration	cab-printer monitoring	■
	cab-Network Manager	□
	cab-Card 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 not condensing	30 - 85%	
Safety regulation	CE, FCC class A, CB, CCC	
18. Optionen		
Ribbon saver module		□
RFID Read-write module		□

The current specifications are according to our technical know-
ledge. They are subject to change.

1. Memory card



Label formats, fonts, texts and gra-
phics can be saved. It can be acces-
sed from the printer or from the PC.

Memory card	
CompactFlash Typ I	512 MB

2. External operation panel



Same operation like the operation pa-
nel on the machine, with an additional
slot for a memory card.

External operation panel	
Connection	USB Mini
Keys	Menu, Pause, Feed, Cancel, Enter, 4 x Cursor
Graphic Displ.	60 x 40 mm
Slot for	CompactFlash-card Typ I
L x W x H mm	182 x 68 x 30

3. Num. keyboard



For the input of numeric
data in stand-alone-
mode.

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

4. Compact keyboard



For direct input of vari-
able data in stand-alo-
ne-mode.

Compact keyboard	
Connection	USB
No. of keys	86
L x W mm	282 x 132

Optimal output through optimal input

Printer Control

Direct programming with J-Script

J	Job Start
H 100	Speed (100 mm/s)
O R	Orientation rotated by 180°
S 11;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)

cab J-Script allows easy programming of the printer by using text strings and this independently from the used label software. Labels can be designed and the status of the printer can be en-quired. The memory card allows to save complex layouts, graphics and fonts, which reduces the data transmission time.

abc - Basic Compiler

```

default.lbl - Editor
Datei Bearbeiten Format Ansicht ?
<ABC>
DO
LINE INPUT a$
IF LEFT$(a$,15)="194300301480070" THEN
PRINT "R t2;";MID$(a$,16)
ENDIF
IF LEFT$(a$,15)="194300300580172" THEN
PRINT "R t3;";MID$(a$,16)
ENDIF
IF LEFT$(a$,15)="194300301970073" THEN
PRINT "R t1;";MID$(a$,16)
ENDIF
IF a$="Q0001" THEN
PRINT "A 1"
ENDIF
LOOP
</ABC>
    
```

The cab Basic Compiler is always one step ahead. With an easy basic programming data is operated or logically combined before they are sent to the printer for further processing. This offers e.g. the possibility to emulate other printers or to integrate data strings from barcode readers or scales in printing processes. All data received is printed in real time.

Database Connector

The cab database connector allows to link up stand-alone printers via TCP/IP interface to central SQL databases in the network. Data can be requested, printed and written back during the printing process.

Monitoring

cab printer monitoring with Intra and Internet



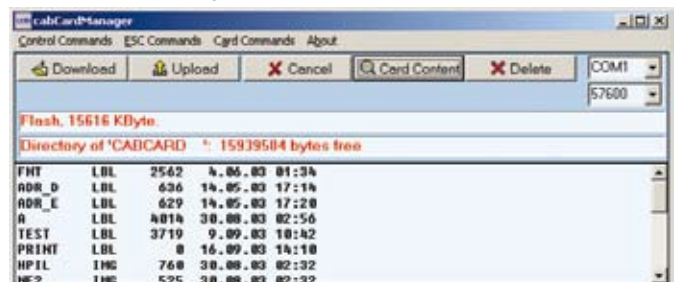
cab printers provide to be monitored and configured with standard web browsers or FTP clients. Firmware updates or data management on the memory card are easy to handle. By the use of SNMP- and SMTP clients, status, warning and error messages are sent via email or SNMP telegram to the network.

Administration

cab-Network Manager

The cab network administration enables the administrator to manage all printers connected to one network at the same time. With a single mouse click different printers can be monitored, configured or updated with firmware; furthermore PIN codes of the printers are changed and data on the memory card can be managed.

cab-Card Manager



Via RS 232 port the memory card can be administrated fast and easily. Label layouts, special text fonts, complex graphics or databases can be up- or downloaded.

cablabel software for cab printers



Perfect labels need optimized text fonts. cab offers a large number of bit-map 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.

cab Windows driver



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

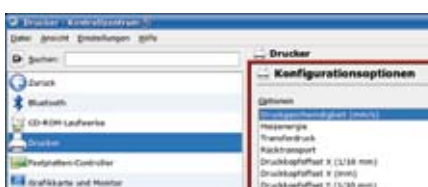
Windows printer driver are provided for Windows 98, ME, 2000, XP, 2003 and NT 4.0

Mac OS X driver



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

Linux driver



For LINUX cab offers also a CUPS based printer driver.

The software to create labels

Powerful functions enable the creation and printing of even complex labels within minutes.

Take advantage of using the multiple possibilities of cablabel R2.

● cablabel R2 Lite

is equivalent to the previous Advanced-version. You get it - free of charge - with every cab printer.

● cablabel R2 Pro

Assistant for UCC/EAN 128 barcode. Allows the collection of printing data from different data bases.

Whether 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 individual respond to all different function of cab printers. This most effective way of communication between software and printer enables to achieve perfect results.

Further label Software

cab offers a range of additional label software (Easylabel, Codesoft, Nice-Label) enabling to program printers, to print and to apply systems.

cablabel R2	Lite	Pro
32-Bit Platform compatibility	■	■
Languages European Version: Arabisch, CZ, D, DK, E, F, FIN, GB/USA, H, I, IL,N, NL, P, PL, RUS, S, TR	■	■
Languages Asian Version : Chinesisch, EST, J, LV, ROK	■	■
Label samples	■	■
Online documentationwith tutorials	■	■
Multi-level Undo number of levels	■	■
Graphic format import	■	■
Color support	■	■
Color graphic reduction		■
Text art		■
True Type font	■	■
Graphic barcodes numbers	■	■
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 formatting		■
Basic formular		■
User Input Fields		
Text alignment		■
Set input format		■
Minimum input length		■
Selection of default values		■
Automatic prompt		■
Extras		
UCC/EAN 128 and Maxicode Assistant		■

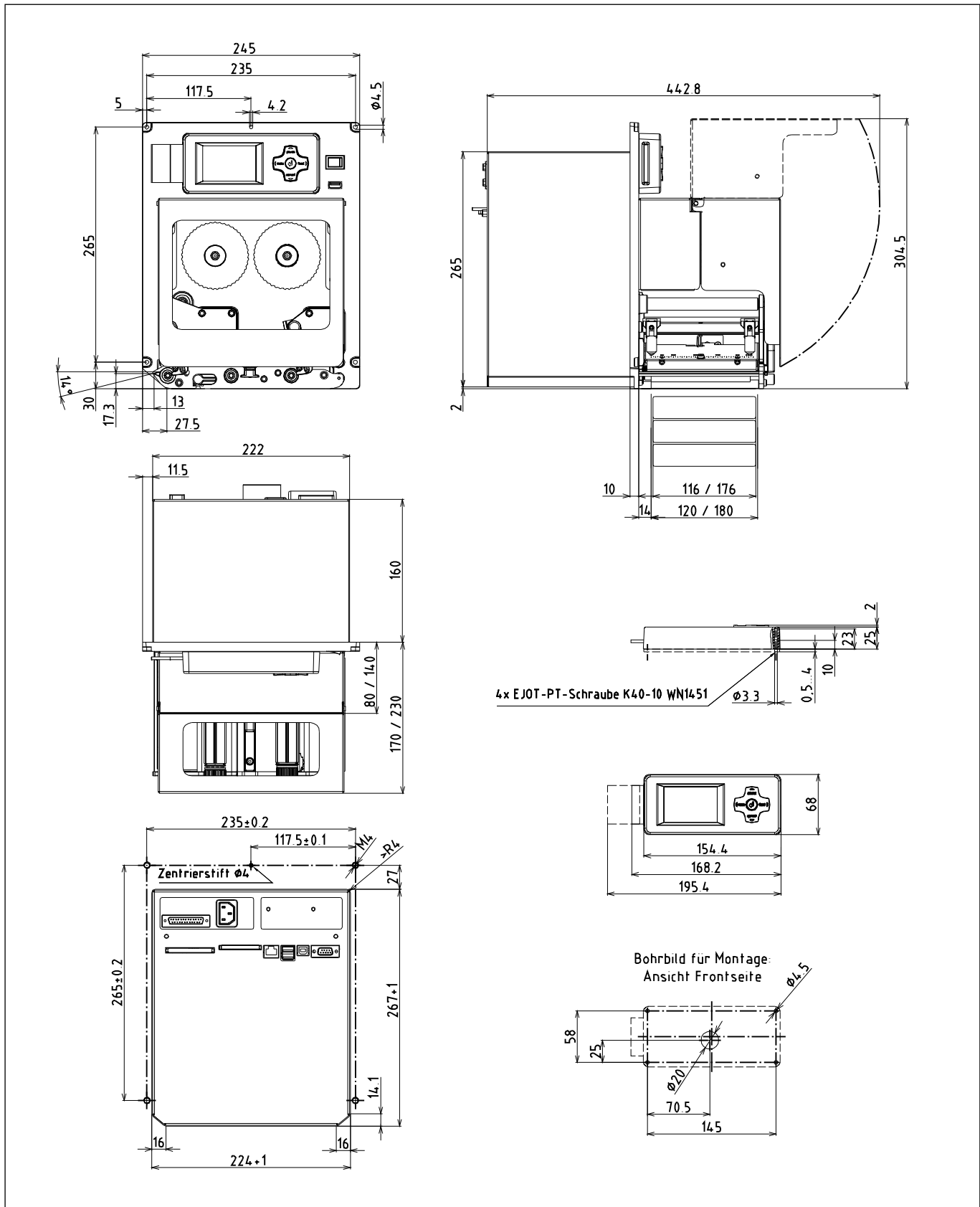
10 Delivery program



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.201	Print module PX../xxx with RFID read-write unit 13,56 MHz
59561xx.202	Print module PX../xxx with ribbon saver module (Extension)
59561xx.203	Print module PX../xxx with ribbon saver module and RFID
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
5901656	Connecting cable USB Mini Lenght 3 m
Accessories	
5954380	External operation panel
5917909	Numerical PC keyboard USB
5901630	Compact PC keyboard USB Cherry Classic Line G84 4100
5561043	Memory card 512 MB CompactFlash Type 1
Software	
5580212	Database Connector
5580215	Network Manager
5580216	cab-Card Manager
5580220	Label software cablabel R2 Lite
5580221	Label software cablabel R2 Pro





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