

## Assembly Instructions



Print Module

# PX Q

## 2 Assembly Instructions for the following products

2

Family	Type
Print Module PX Q	PX Q4L
	PX Q4R
	PX Q4.3L
	PX Q4.3R
	PX Q6.3L
	PX Q6.3R

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## 1.1 Instructions

Important information and instructions in this documentation are designated as follows:



### **Danger!**

**Draws your attention to an exceptionally grave, impending danger to your health or life.**



### **Warning!**

**Indicates a hazardous situation that could lead to injuries or material damage.**



### **Attention!**

**Draws attention to possible dangers, material damage or loss of quality.**



### **Note!**

**Advice on how to make work easier or an important step to be carried out.**



### **Environment!**

Gives you tips on protecting the environment.



Handling instruction



Reference to section, position, illustration number or document.



Option (accessories, peripheral equipment, special fittings).

*Time*

Information in the display.

## 1.2 Intended Use

- The device is manufactured in accordance with the current technological standards and the recognized safety rules. However, danger to the life and limb of the user or third parties and/or damage to the device and other tangible assets can arise during use.
- The device may only be used for its intended purpose and if it is in perfect working order, and it must be used with regard to safety and dangers as stated in the manual.
- The print module is designed for the integration into a production line. It is intended exclusively for printing suitable materials. Any other use or use going beyond this shall be regarded as improper use. The manufacturer/supplier shall not be liable for damage resulting from unauthorized use; the user shall bear the risk alone.
- Usage for the intended purpose also includes complying with the manual, including.



### **Note!**

**The complete documentation is included in the scope of delivery on DVD, and can also currently be found in the Internet.**

## 1.3 Safety Instructions

- The device is configured for voltages of 100 to 240 V AC. It only has to be plugged into a grounded socket.
- Only connect the device to other devices which have a protective low voltage.
- Switch off all affected devices (computer, print module, accessories) before connecting or disconnecting.
- The device may only be used in a dry environment, do not expose it to moisture (sprays of water, mists, etc.).
- Do not use the device in an explosive atmosphere.
- Do not use the device close to high-voltage power lines.
- If the device is operated with the cover open, ensure that people's clothing, hair, jewelry etc. do not come into contact with the exposed rotating parts.
- The device or parts of it, especially the printhead can become hot while printing. Do not touch during operation, and allow to cool down before changing material and before disassembly.
- Risk of crushing when closing the cover. Touch the cover at the outside only. Do not reach into the swivel range of the cover.
- Perform only those actions described in this manual.  
Work going beyond this may only be performed by trained personnel or service technicians.
- Unauthorized interference with electronic modules or their software can cause malfunctions.

- Other unauthorized work on or modifications to the device can also endanger operational safety.
- Always have service work done in a qualified workshop, where the personnel have the technical knowledge and tools required to do the necessary work.
- There are various warning stickers on the device. They draw your attention to dangers. Warning stickers must therefore not be removed, as then you and other people cannot be aware of dangers and may be injured.
- The maximum sound pressure level LpA is less than 70 dB(A).



**Danger!**  
**Danger to life and limb from power supply.**  
 ► Do not open the device casing.



**Warning!**  
 This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

1.4 Safety Marking

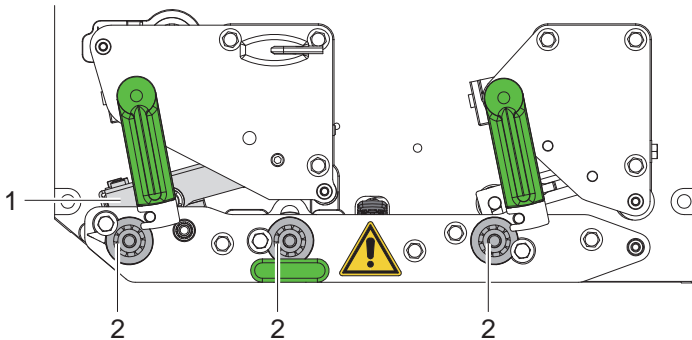


Fig. 1 Safety marking

	<p><b>Danger spot !</b></p> <ul style="list-style-type: none"> <li>• Risk of burning on the hot printhead assembly (1).</li> <li>► Do not touch the printhead during operation, and allow to cool down before changing material and before disassembly.</li> <li>• Entanglement hazard by turning rollers (2).</li> <li>► Ensure that people's clothing, hair, jewelry etc. do not come into contact with the exposed rotating parts.</li> </ul>
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1.5 Environment



Obsolete devices contain valuable recyclable materials that should be sent for recycling.

- Send to suitable collection points, separately from residual waste.

The modular construction of the print module enables it to be easily disassembled into its component parts.

- Send the parts for recycling.



The electronic circuit board of the device is equipped with a lithium battery.

- Take old batteries to collection boxes in shops or public waste disposal centers.

## 2.1 Device Overview

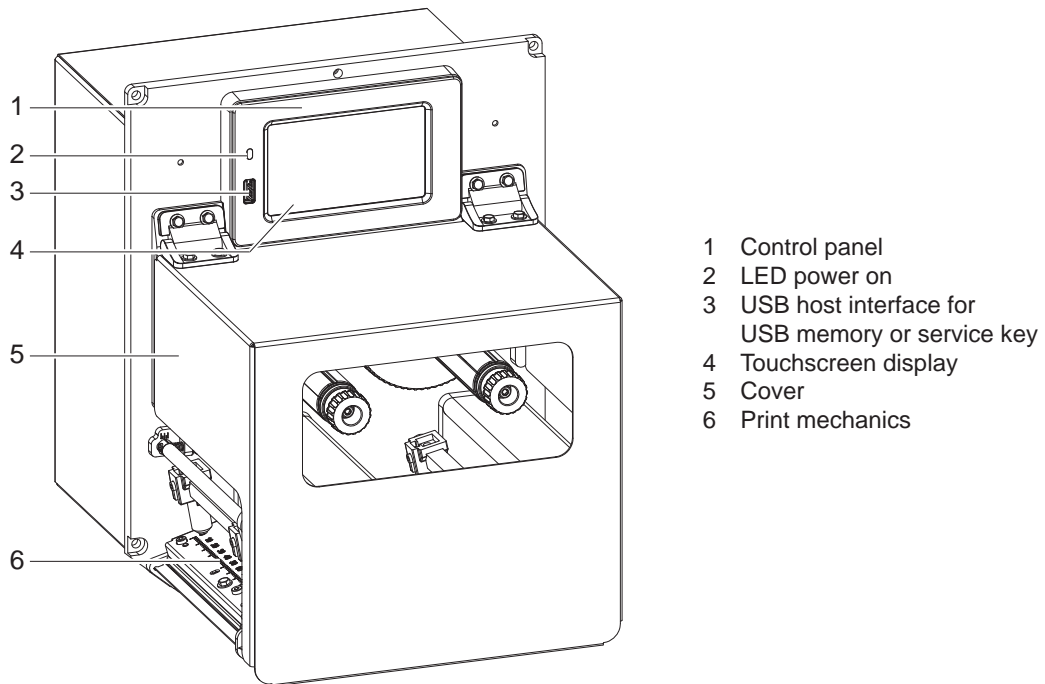


Fig. 2 Overview

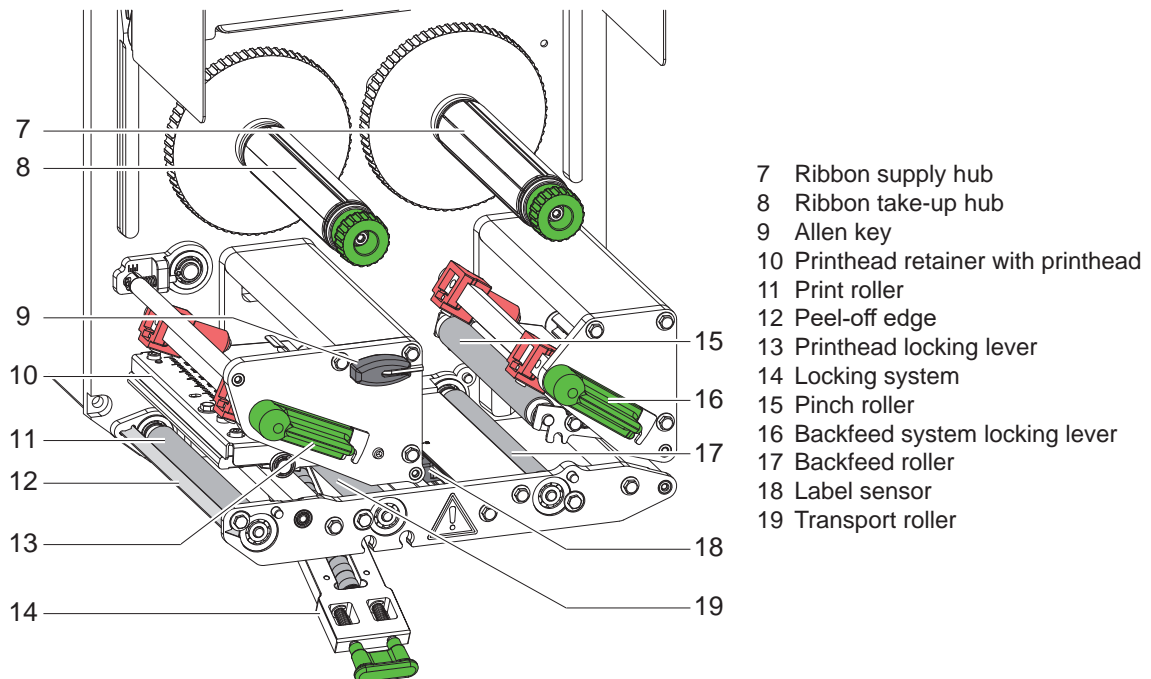


Fig. 3 Print mechanics

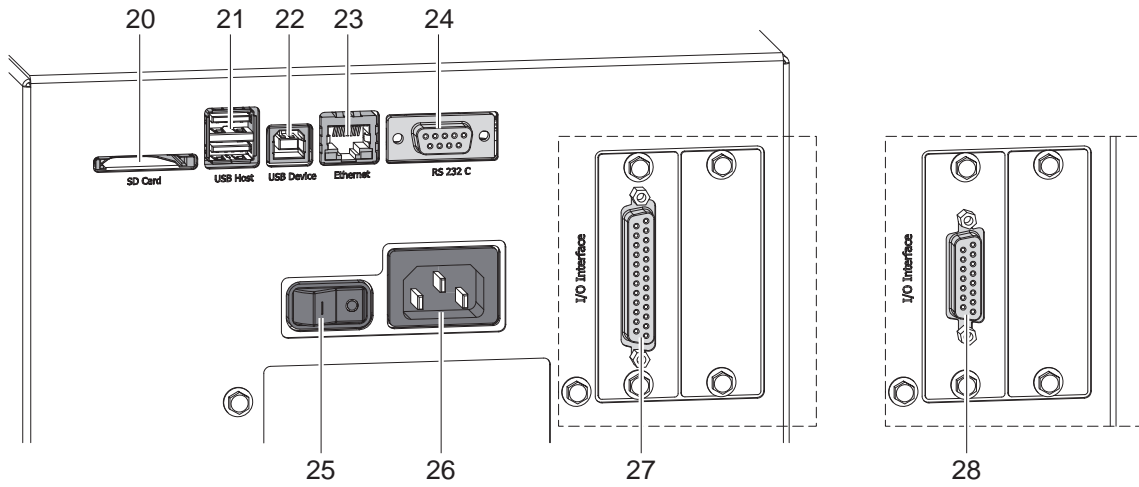


Fig. 4 Connections

- 1 Slot for SD card
- 2 2 USB host interfaces for service key, USB memory stick, keyboard, barcode scanner, WiFi adapter, external control panel or warning light
- 3 USB Hi-speed device interface
- 4 Ethernet 10/100 Base-T interface
- 5 Serial RS-232 C interface
- 24 Power switch
- 25 Power connection jack
- 26 Digital I/O interface 24 V
- alternative:*
- 27 Digital I/O interface 5 V

## 2.2 Unpacking and Setting-up the Print Module

- ▶ Lift the print module out of the box.
- ▶ Check print module for damage which may have occurred during transport.
- ▶ Check delivery for completeness.
- ▶ Attach the print module to the prepared construction using four screws M5x20 (Mounting dimensions ▷ 9 on page 25).
- ▶ Remove foam transportation safeguards at the printhead and the backfeed system.

Contents of delivery:

- Print module
- 4 Screws M5x20
- Power cable
- USB cable
- Assembly Instructions



### Note!

Please keep the original packaging in case the print module must be returned.



### Attention!

The device and printing materials will be damaged by moisture and wetness.

- ▶ Set up print modules only in dry locations protected from splash water.

## 2.3 Connecting the Device

The standard available interfaces and connectors are shown in Fig. 4.

### 2.3.1 Connecting to the Power Supply

The print module is equipped with a wide area power unit. The device can be operated with a supply voltage of 230 V~/50 Hz or 115 V~/60 Hz without adjustment.

1. Check that the device is switched off.
2. Plug the power cable into the power connection socket (26 / Fig. 4).
3. Plug the power cable into a grounded socket.

### 2.3.2 Connecting to a Computer or Computer Network



### Attention!

Inadequate or no grounding can cause malfunctions during operations.

Ensure that all computers and cables connected to the print module are grounded.

- ▶ Connect the print module to a computer or network by a suitable cable.

For details of the interfaces ▷ Interface Description.

## 2.4 Switching on the Device

When all connections have been made:

- ▶ Switch the print module on at the power switch (25 / Fig. 4).  
The print module performs a system test, and then shows the system status *Ready* in the display.

The user can control the operation of the printer with the touchscreen display, for example:

- Issuing, interrupting, continuing and canceling print jobs,
- Starting labelling cycles when operating the printer with applicator,
- Setting printing parameters, e.g. heat level of the printhead, print speed, interface configuration, language and time of day (▷ Configuration Manual),
- Control stand-alone operation with a memory module (▷ Configuration Manual),
- Update the firmware (▷ Configuration Manual).

Many functions and settings can also be controlled by software applications or by direct programming with a computer using the printer's own commands. ▷ Programming Manual for details.

Settings made on the touchscreen display make the basic settings of the label printer.



**Note!**

It is advantageous, whenever possible, to make adaptations to various print jobs in the software.

3.1 Start Screen

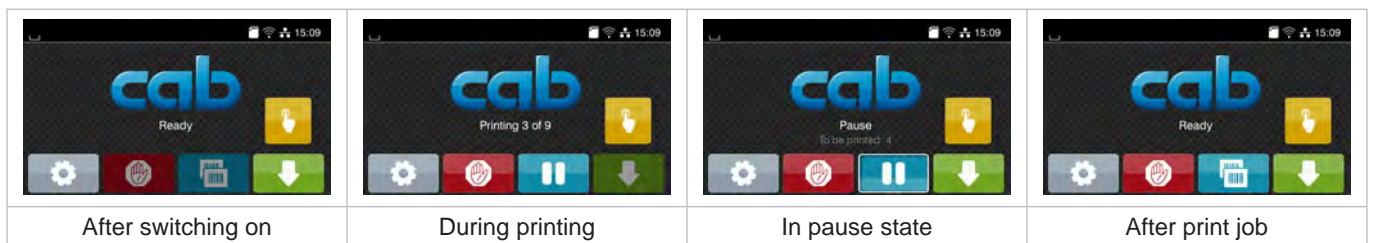


Figure 5 Start screen

The touchscreen display is operated directly by touch:

- To open a menu or select a menu item lightly touch the corresponding symbol.
- To scroll in lists slide finger up or down on the display.

	Open the menu		Repeat the last printed label
	Interrupt the print job		Cancel all print jobs
	Continue the print job		Feed a blank label
with applicator:			
	with print job: Alternately printing and applying a label		
	without print job: Starting an applicator action		

Table 1 Symbols on the start screen



**Note!**

Inactive symbols are shaded.

In the headline several information are displayed as widgets depending on the configuration:

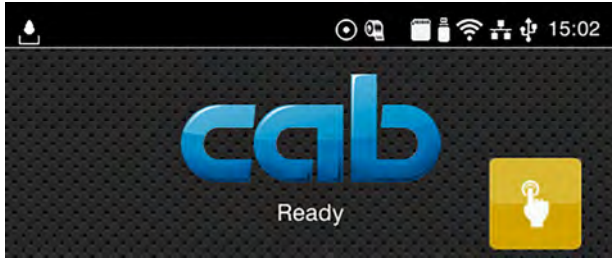


Figure 6 Widgets in the start screen











	Displays the current data transfer in the form of a falling drop.
	The <i>Save data stream</i> function is active ▷ Configuration manual All received data are stored in a .lbl file.
	Warning ribbon end ▷ Configuration manual The remaining diameter of the ribbon supply roll undershoots the set value.
	SD card installed
	USB memory installed
	WiFi connection active The WiFi strength is displayed by the number of white arcs.
	Ethernet connection active
	USB connection active
	abc program active
	Clock time

Table 2 Widgets in the start screen

3.2 Navigation in the Menu

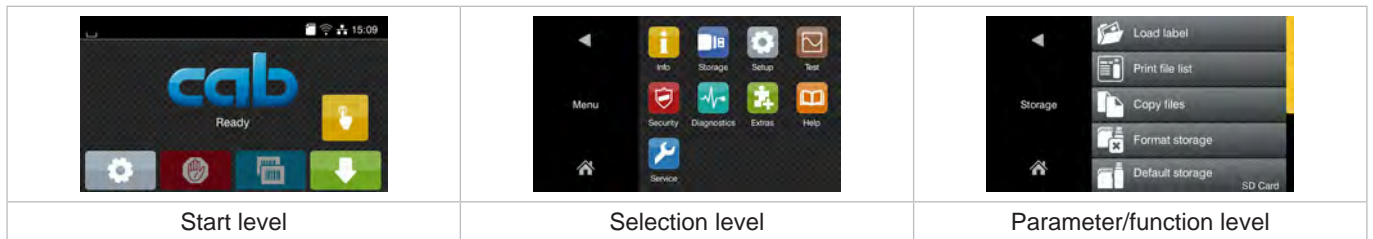





Figure 7 Menu levels

- ▶ To open the menu select  on the start screen.
- ▶ Select a theme in the selection level.  
Several themes have substructures again with selection levels.  
To return from the current level to the upper one select . To leave the menu select .
- ▶ Continue the selection until the parameter/function level is reached.
- ▶ Start a function. The function may only start after a preparatory dialog.  
- or -  
Select a parameter to set. The setup possibilities are depending from the parameter type.

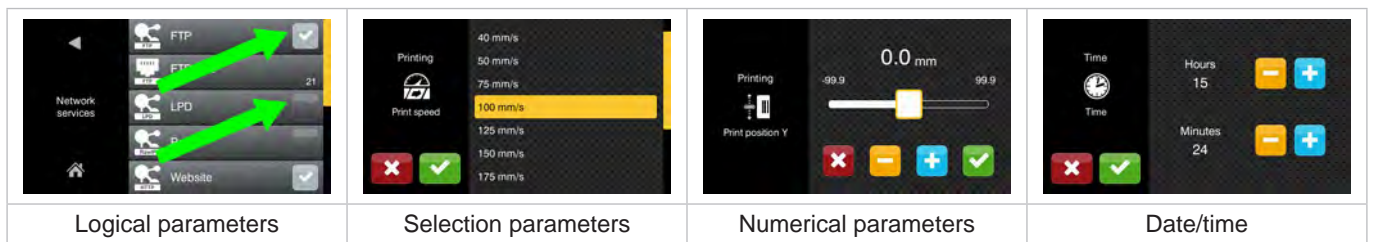


Figure 8 Samples for parameter setting








	Scroll bar for rough value setting
	Decreasing the value step-by-step
	Increasing the value step-by-step
	Return without saving the setting
	Return with saving the setting
	Parameter is disabled, touching enables the parameter
	Parameter is enabled, touching disables the parameter

Table 3 Buttons for parameter setting

**Note!**

For adjustments and simple installation work, use the accompanying Allen key located in the upper section of the print unit. No other tools are required for the work described here.

### 4.1 Loading Labels

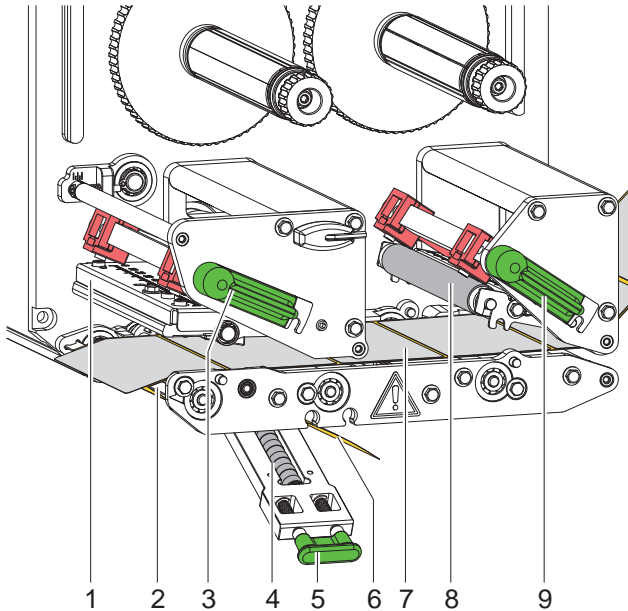


Fig. 9 Loading labels

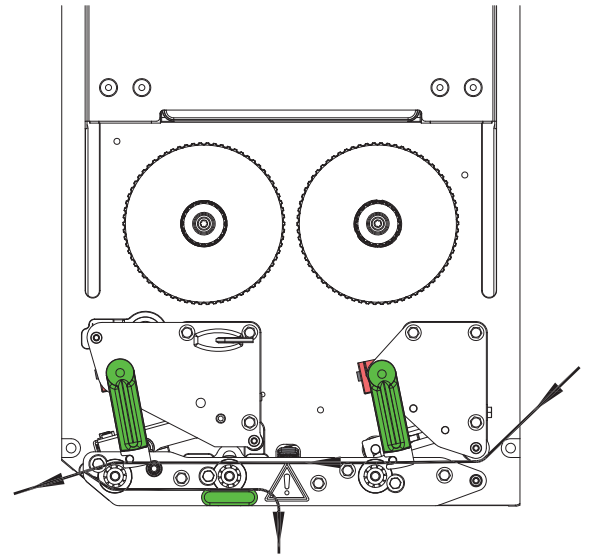


Fig. 10 Label feed path

1. Open cover.
2. Turn levers (3) and (9) counterclockwise to open the printhead (1) and the backfeed system (8).
3. Guide label strip (7) to the peel-off edge (2) as shown in the Fig. 10 and move to the mounting plate until it stops. The printing side of the label must be shown from above.
4. Forward the label strip over the peel-off edge, that the strip reaches back to the locking system (4). Remove the labels from the overhanging strip.
5. Turn levers (3) and (9) clockwise to close the printhead (1) and the backfeed system (8).

**Note!**

For a good label tracking it is necessary to brake slightly (about 3 N) the incoming material. This must be done outside of the print module.

6. Pull the knob (5) and swing downward the locking system (4). Guide the liner (6) from the peel-off edge (2) over the locking system (4).
7. Tighten the liner, pull the knob (5) and swing the locking system upwards. Ensure that the knob snaps in completely into the side plate.
8. Close cover.

## 4.2 Setting the Label Sensor

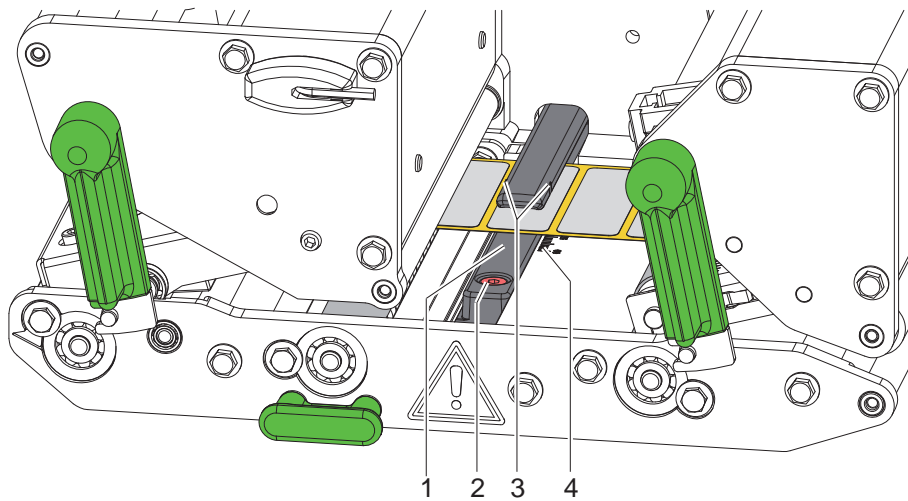


Fig. 11 Setting the label sensor

The label sensor (1) can be shifted perpendicular to the direction of media flow for adaptation to the media. The sensor unit is marked with indentation (3) on the label sensor retainer.

- ▶ Loosen screw (2) slightly.
- ▶ Position label sensor by moving it in such a way that the sensor can detect the label gap or a reflex or cut-out mark.
- or, if the labels deviate from a rectangular shape, -
- ▶ Align label sensor with the front edge of the label in the direction of paper flow.
- ▶ Tighten screw (2).

**Note!**

Using the scale (4) the label sensor also can be set before loading the labels.

### 4.3 Setting the Head Locking System

The printhead is pushed on via two plungers. The location of the outer plunger must be set to the width of the label medium used so as to

- achieve even print quality across the entire label width
- prevent wrinkles in the feed path of the transfer ribbon
- prevent premature wearing of the print roller and printhead.

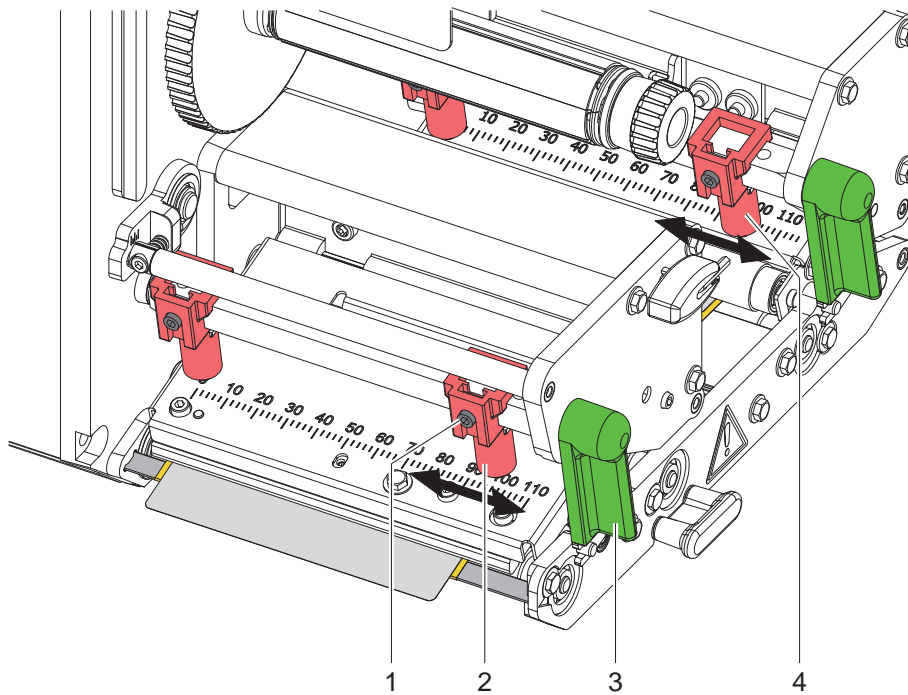


Fig. 12 Setting the head locking system

1. Turn lever (3) clockwise to lock the printhead.
2. Loosen threaded pin (1) at outer plunger (2) with Allen key.
3. Align outer plunger (2) to the outer label edge and tighten threaded pin (1).
4. Position outer plunger (4) at the backfeed system in the same manner.

## 4.4 Loading Transfer Ribbon

**Note!**

With direct thermal printing, do not load a transfer ribbon; if one has already been loaded, remove it.

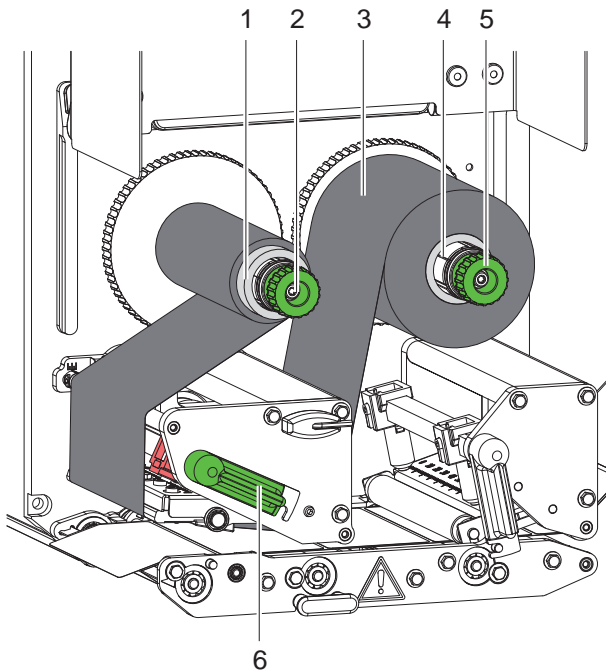


Fig. 13 Loading transfer ribbon

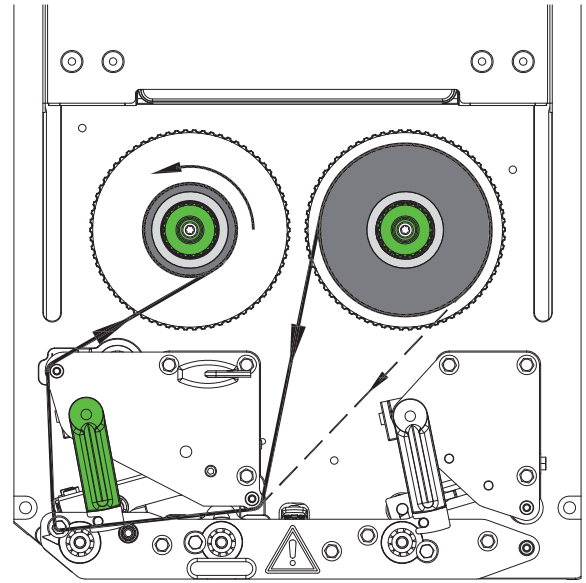


Fig. 14 Transfer ribbon feed path

1. Clean printhead before loading the transfer ribbon (▷ 6.3 on page 18).
2. Turn lever (6) counterclockwise to open the printhead.
3. Slide transfer ribbon roll (3) onto the ribbon supply hub (4) until it stops and so that the color coating of the ribbon faces away from the printhead after loading.
4. Hold ribbon supply hub (4) firmly and turn knob (5) counterclockwise until the transfer ribbon roll is secured.
5. Slide suitable ribbon core (1) onto the transfer ribbon take-up hub (2) and secure it in the same way.
6. Guide transfer ribbon through the print unit as shown in Fig. 14.
7. Secure starting end of transfer ribbon to the transfer ribbon core (1) with adhesive tape. Ensure counterclockwise rotation direction of the transfer ribbon take-up hub here.
8. Turn transfer ribbon take-up hub (2) counterclockwise to smooth out the feed path of the transfer ribbon.
9. Turn lever (6) clockwise to close the printhead.

## 4.5 Setting the Feed Path of the Transfer Ribbon

Transfer ribbon wrinkling can lead to print image errors. Transfer ribbon deflection (1) can be adjusted so as to prevent wrinkles.

**Note!**

A maladjustment of the head locking system may also cause ribbon wrinkling

► Check first the setting of the head locking system (▷ 4.3 on page 14).

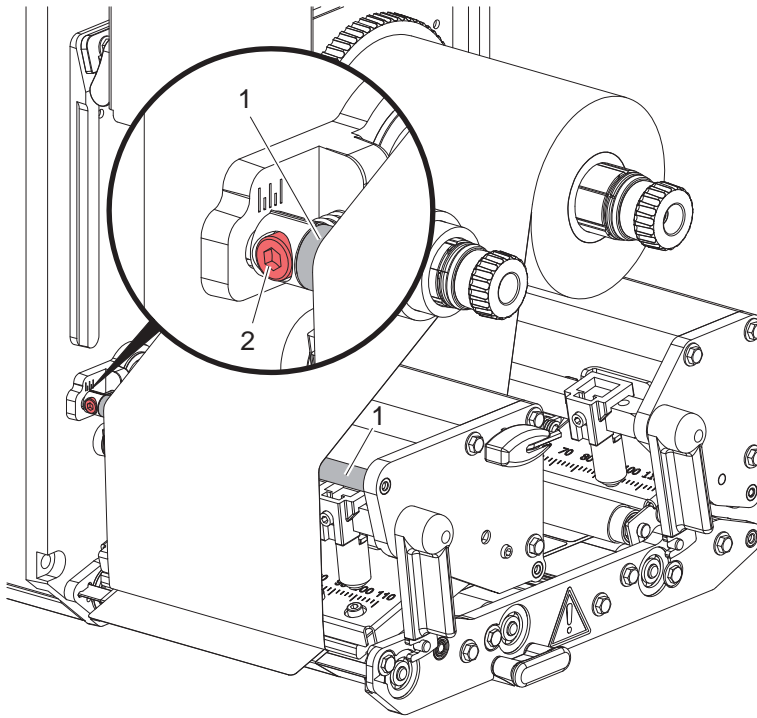


Fig. 15 Setting the feed path of the transfer ribbon

**Note!**

**The adjustment is best carried out during printing.**

1. Read current setting on the scale and record if necessary.
2. Turn screw (2) with Allen key and observe the behavior of the ribbon.  
Clockwise turning - the inner edge of the transfer ribbon is tightened  
Counterclockwise turning - the outer edge of the transfer ribbon is tightened

## 5.1 Printhead Protection




### Attention!

Printhead damage caused by improper handling!

- ▶ Do not touch the underside of the printhead with fingers or sharp objects.
- ▶ Ensure that the labels are clean.
- ▶ Print with the lowest possible printhead temperature.

## 5.2 Synchronization of the Paper Feed

After the label stock has been inserted, a synchronization of the paper feed is required. That way the first label, which is detected by the label sensor, will be transported to the print position and all labels in front will be fed out of the print module. So the synchronization avoids, that blank labels are peeled-off together with the first printed label. This can cause useless first label.

- ▶ Press  to start the synchronization.
- ▶ Remove the blank labels peeled-off during the synchronization.



### Note!

Synchronization is not necessary if the printhead was not opened between different print jobs, even if the print module was switched off.

## 5.3 Printing



### Attention!

To start the print operation two steps are necessary :

- ▶ Send a print job via data interface or load a print job from a memory medium.
  - ▷ Programming Manual, Configuration Manual
- ▶ Start a print cycle by sending external signals via I/O interface.
  - ▷ Interface Description

### 5.3.1 Peel-off Mode

In Peel-off mode, the labels are automatically peeled off the liner after printing and presented for removal.



### Attention!

- ▶ Activate the peel-off mode in the software.  
This is done with the "P command" in the direct programming, ▷ Programming Manual.

### 5.3.2 External Rewinding

The printed labels are leaving the print module at the peel-off edge and may be wound up externally with the liner for later use.

### 5.3.3 Ribbon Saving

If there is no information to print during a longer label feed, the printhead will be lifted, and the transfer ribbon will be paused from feeding. This will reduce the ribbon consumption. The minimum length for ribbon saving is defined in the firmware and depends on the print speed.

The ribbon saver can permanently be activated in the printer configuration (▷ Configuration Manual) or job-oriented by the software (▷ Programming Manual).

## 6.1 Cleaning Information



### Danger!

Risk of death via electric shock!

- ▶ Disconnect the print module from the power supply before performing any maintenance work.

The print module requires very little maintenance.

It is important to clean the thermal printhead regularly. This guarantees a consistently good printed image and plays a major part in preventing premature wear of the printhead.

Otherwise, the maintenance is limited to monthly cleaning of the device.



### Attention!

The print module can be damaged by aggressive cleansers.

- ▶ Do not use abrasive cleaners or solvents for cleaning the external surfaces or modules.

#### Recommended Cleaners

Print and rewind guide roller	Roller cleaner W1 (Part No. 9200051)
Printhead and label sensor	Isopropanol > 99,9%
Other surfaces	Isopropanol 70-100%

Table 4 Recommended cleaners

- ▶ Remove dust and paper fluff from the print area with a soft brush or vacuum cleaner.

## 6.2 Cleaning the Rollers

Accumulations of dirt on the print and transport rollers may impair the media transport and the print quality.

- ▶ Lift the printhead, open the transport systems.
- ▶ Remove labels and transfer ribbon from the print module.
- ▶ Remove deposits with roller cleaner W1 and a soft cloth.
- ▶ Wait 2–3 minutes before commissioning the printer.
- ▶ If a roller is badly soiled or appear damaged, replace it ▷ Service Manual.

## 6.3 Cleaning the Printhead

Cleaning intervals:      direct thermal printing      - every media roll change  
    thermal transfer printing      - every ribbon roll change

Substances may accumulate on the printhead during printing and adversely affect printing, e.g. differences in contrast or vertical stripes.



### Attention!

Printhead can be damaged!

- ▶ Do not use sharp or hard objects to clean the printhead.
- ▶ Do not touch protective glass layer of the printhead with fingers.



### Attention!

Risk of injury from the hot printhead.

- ▶ Ensure that the printhead has cooled down before starting cleaning.

- ▶ Lift the printhead.
- ▶ Remove labels and transfer ribbon from the printer.
- ▶ Clean printhead surface with a cotton swab or a soft cloth soaked in >99% isopropanol.
- ▶ Allow printhead to dry for 2–3 minutes before resuming printing.

## 7.1 Error Display

The appearance of an error will be shown on the display:

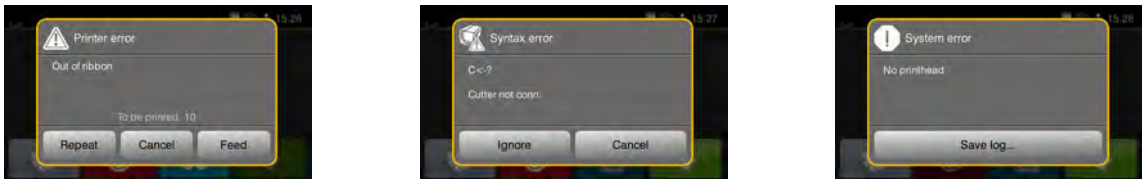


Figure 16 Error display

The error correction depends on the error type ▷ 7.2 on page 19.

The display offers the following possibilities to continue after an error occurred:

<i>Repeat</i>	The print job will be continued after clearing the error cause.
<i>Cancel</i>	The print job will be cancelled.
<i>Feed</i>	The paper feed will be synchronized. Then the print job can be continued.
<i>Ignore</i>	The error message will be ignored. The print job will be continued, possibly with limited performance.
<i>Save log</i>	The error does not allow print operation. For detailed analysis several system files can be saved on an external memory.

Table 5 Buttons in the error display

## 7.2 Error Messages and Fault Correction

Error message	Cause	Remedy
<i>Barcode error</i>	Invalid barcode content, e.g. alphanumeric characters in a numerical barcode	Correct the barcode content.
<i>Barcode too big</i>	The barcode is too big for the allocated area of the label	Reduce the size of the barcode or move it.
<i>Buffer overflow</i>	The input buffer memory is full and the computer is still transmitting data.	Use data transmission via protocol (preferably RTS/CTS).
<i>Device not conn.</i>	Programming addresses a non-existent device	Either connect this device or correct the programming.
<i>File not found</i>	Requested file is not on the card	Check the contents of the card.
<i>Font not found</i>	Error with the selected download font	Cancel current print job, change font.
<i>Memory overflow</i>	Current print job contains too much information, e.g. selected font, large graphics	Cancel current print job. Reduce amount of data to be printed.
<i>Name exists</i>	Duplicate usage of field name in the direct programming	Correct programming
<i>No label found</i>	There are labels missing on the label material	Press <i>Repeat</i> repeatedly until printer recognizes the next label on the material.
	The label format as set in the software does not correspond with the real label format	Cancel current print job. Change the label format set in the software. Restart print job.
<i>No label size</i>	The size of the label is not defined in the programming.	Check programming.
<i>Out of paper</i>	Out of label roll	Load labels.
	Error in the paper feed	Check paper feed.

Error message	Cause	Remedy
<i>Out of ribbon</i>	Out of transfer ribbon	Insert new transfer ribbon.
	Transfer ribbon melted during printing	Cancel current print job. Change the heat level via software. Clean the printhead ▷ 6.3 on page 18 Load transfer ribbon. Restart print job.
	The printer is loaded with direct thermal label material, but the software is set to transfer printing	Cancel current print job. Set software to direct thermal printing. Restart print job.
<i>Pinch roller open</i>	The backfeed system is not locked	Close the backfeed system.
<i>Printhead open</i>	Printhead not locked	Lock printhead.
<i>Printhead too hot</i>	Printhead is overheated	After pausing, the print job will be continued automatically. If the fault recurs repeatedly, reduce the heat level or the print speed via software.
<i>Read error</i>	Read error when reading from the memory card	Check data of the card. Backup data, reformat card.
<i>Remove ribbon</i>	Transfer ribbon is loaded although the printer is set to direct thermal printing	for direct thermal printing remove ribbon
		for thermal transfer printing set the printer in the configuration or in the software to transfer printing
<i>Ribbon ink side</i>	Identified ribbon unwinding direction does not match to the setup setting	Ribbon loaded incorrectly. Clean the printhead ▷ 6.3 on page 18 Load the ribbon correctly.
		Setting does not match to the used ribbon. Correct the setting.
<i>Syntax error</i>	Printer has received an unknown or invalid command from the computer.	Press <i>Ignore</i> to skip the command or press <i>Cancel</i> to cancel the print job.
<i>Unknown card</i>	Card not formatted, Type of card not supported	Format card, use different type of card.
<i>Voltage error</i>	Hardware error	Switch the printer off and then on. If error recurs call service. It is shown which voltage has failed. Please note.
<i>Write error</i>	Hardware error	Repeat the write process, reformat card.

Table 6 Error Messages and Fault Correction

## 7.3 Problem Solution

Problem	Cause	Remedy
Transfer ribbon creases	Transfer ribbon deflection not adjusted	Adjust the transfer ribbon deflection. ▷ 4.5 on page 16
	Head locking system not adjusted	Adjust the head locking system. ▷ 4.3 on page 14
	Transfer ribbon too wide	Use a transfer ribbon slightly wider than the width of label.
Print image has smears or voids	Printhead is dirty	Clean the printhead ▷ 6.3 on page 18
	Temperature too high	Decrease temperature via software.
	Unsuitable combination of labels and transfer ribbon	Use different type of ribbon.
Printer does not stop after transfer ribbon runs out	Thermal printing is chosen in the software	Change to thermal transfer printing.
Printer prints a sequence of characters instead of the label format	Printer is in ASCII dump mode	Cancel the ASCII dump mode.
Printer transports label media, but transfer ribbon does not move	Transfer ribbon incorrectly inserted.	Check and, if necessary, correct the transfer ribbon web and the orientation of the label side.
	Unsuitable combination of labels and transfer ribbon	Use different type of ribbon.
Printer only prints each second label	Setting of the size in the software is too large.	Change the size in the software.
Vertical white lines in the print image	Printhead is dirty	Clean the printhead ▷ 6.3 on page 18
	Printhead is defective (failure of heat elements)	Change the printhead. ▷ Service Manual.
Horizontal white lines in the print image	Printer is used with the <i>backfeed &gt; smart</i> in the cut or peel-off mode	Set the <i>backfeed &gt; always</i> in the setup. ▷ Configuration Manual.
Print image is irregular, one side is lighter	Printhead is dirty	Clean the printhead ▷ 6.3 on page 18
	Head locking system not adjusted	Adjust the head locking system. ▷ 4.3 on page 14

Table 7 Problem solution

8.1 Label Dimensions

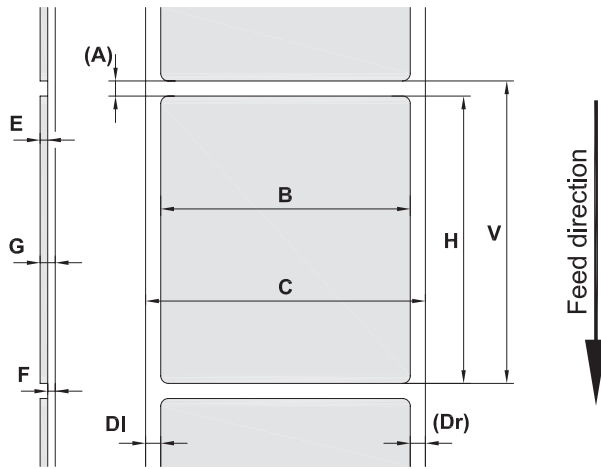


Fig. 17 Label dimensions

Dim.	Designation	Dim. in mm								
		PX Q4		PX Q4.3		PX Q6				
		dpi		300	600	203	300	203	300	
B	Label width	10 - 116				46 - 176				
H	Label height	min. without backfeed	4				6			
		max.	5000	4000	5000	4000	4000	3000		
A	Label distance	> 2								
C	Width of liner	16 - 120				50 - 180				
DI	Left margin	≥ 0								
Dr	Right margin	≥ 0								
E	Label thickness	0,025 - 0,6								
F	Liner thickness	0,03 - 0,16								
G	Thickness label with liner	0,055 - 0,76								
V	Label feed	> 6				> 8				
	<ul style="list-style-type: none"> <li>Small label sizes, thin materials or strong glue can lead to limitations. Critical applications need to be tested and cleared.</li> </ul>									

Table 8 Label dimensions

8.2 Device Dimensions

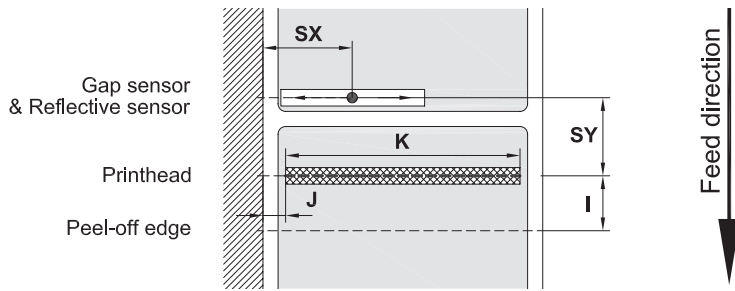


Fig. 18 Device dimensions

Dim.	Designation	PX Q4		PX Q4.3		PX Q6.3		
		dpi		300	600	203	300	
I	Distance printhead - peel-off edge	14,4						
J	Distance 1st heating point - material edge without ribbon saver	L	1,0	1,0	1,0	1,0	1,0	
		R	1,0	1,0	1,0	1,0	1,0	
	with ribbon saver	L	2,0	2,0	3,2	1,0	1,2	3,8
		R	2,0	2,0	2,6	0,4	1,2	3,8
K	Print width	105,7	105,7	104	108,4	168	162,6	
SX	Distance gap/reflective sensor - material edge, i.e. permissible distance of reflex or cut-out marks to the material edge	4 - 60						
SY	Distance gap/reflective sensor - printhead	94,5						

Table 9 Device dimensions

8.3 Reflex Mark Dimensions

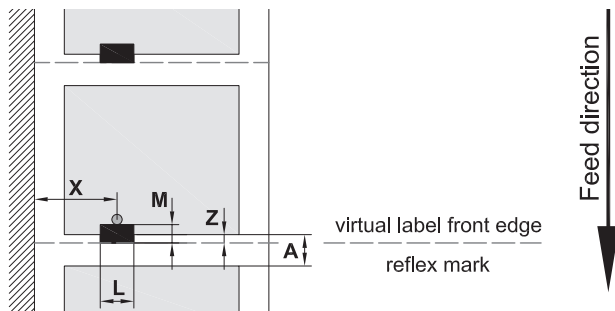
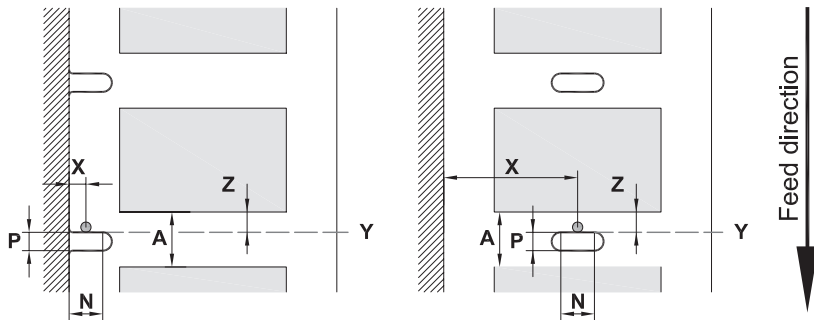


Fig. 19 Reflex mark dimensions

Dim.	Designation	Dim. in mm
A	Label distance	> 2
L	Width of reflex mark	> 5
M	Height of reflex mark	3 - 10
X	Distance mark - material edge	4 - 60
Z	Distance virtual label front edge - actual label front edge ▶ Adjust software settings	0 up to A / recomm. : 0
	<ul style="list-style-type: none"> <li>• Reflex marks must be on the back side of the material (liner).</li> <li>• Label sensor for reflex marks on the top side on request.</li> <li>• Specification is valid for black marks.</li> <li>• Recognition of colored marks may fail. ▶ Preliminary tests are needed.</li> </ul>	

Table 10 Reflex mark dimensions

### 8.4 Cut-out Mark Dimensions



for marginal cut-out marks  
 minimum liner thickness 0,06 mm

Fig. 20 Cut-out mark dimensions

Dim.	Designation	Dim. in mm
A	Label distance	> 2
N	Width of cut-out mark for marginal cut-out	> 5 > 8
P	Height of cut-out mark	2 - 10
X	Distance mark - material edge	4 - 60
Y	Sensor recognized virtual label front edge with gap sensor recognition	Rear edge cut-out
Z	Distance recognized front edge - actual label front edge ▶ Adjust software settings	0 up to A-P

Table 11 Cut-out mark dimensions

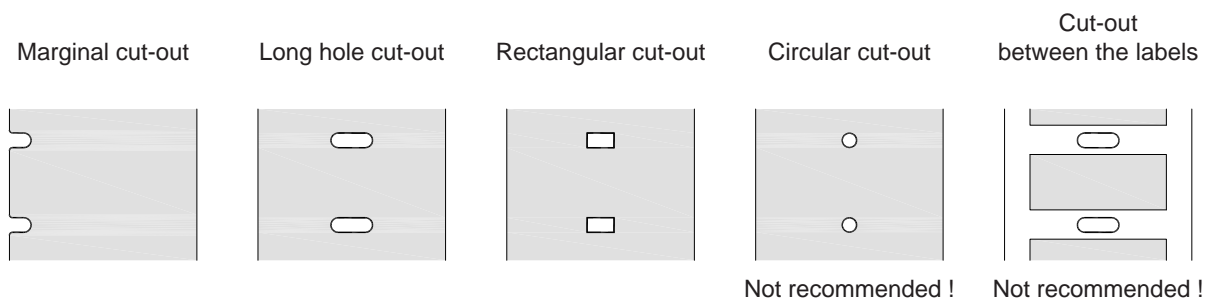


Fig. 21 Samples for cut-out marks

○ Attachment point for screws M5x20

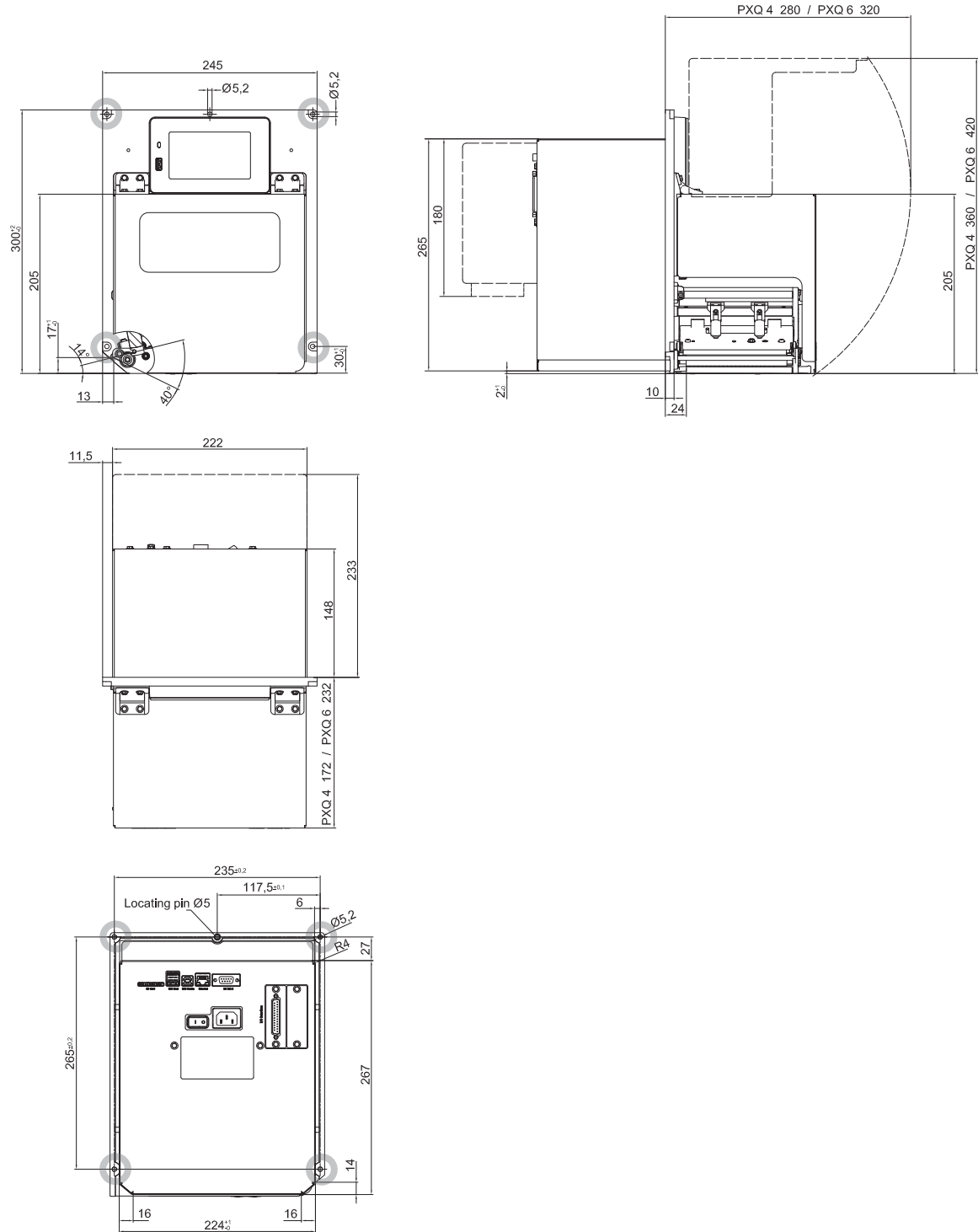


Fig. 22 Mounting Dimensions

## 10.1 Declaration of Incorporation




cab Produkttechnik  
GmbH & Co KG  
Wilhelm-Schickard-Str. 14  
D-76131 Karlsruhe  
Germany

### Declaration of Incorporation

We declare herewith that the following „partly completed machinery“ as a result of design, construction and the version put in circulation complies with the essential requirements of the **Directive 2006/42/EC on machinery** :

Annex I, Article 1.1.2, 1.1.3, 1.1.5, 1.1.6, 1.2.1, 1.2.4.1, 1.3.2, 1.5.1, 1.5.2, 1.5.8, 1.6.3

In the event of any alteration which has not been approved by us being made to any device as designated below, this statement shall thereby be made invalid.

Device:	<b>Print Module</b>
Type:	<b>PX Q</b>
Applied EC Regulations and Norms:	
<b>Directive 2006/42/EC on machinery</b>	<ul style="list-style-type: none"> <li>• EN ISO 12100:2010</li> <li>• EN ISO 13857:2008</li> <li>• EN 349:1993+A1:2008</li> <li>• EN ISO 13849-1:2015</li> <li>• EN 62368-1: 2014+AC:2015</li> </ul>
Other Relevant Directives:	
<ul style="list-style-type: none"> <li>• <b>Directive 2014/30/EU relating to electromagnetic compatibility</b></li> <li>• <b>Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment</b></li> </ul>	
Person authorised to compile the technical file :	<b>Erwin Fascher Am Unterwege 18/20 99610 Sömmerda</b>
Signed for, and on behalf of the Manufacturer :	<b>Sömmerda, 23.09.2019</b>
<b>cab Produkttechnik Sömmerda Gesellschaft für Computer- und Automationsbausteine mbH 99610 Sömmerda</b>	 <b>Erwin Fascher Managing Director</b>

Start-up is forbidden until determined that the machine, into which the incomplete machine is to be built corresponds to the regulations of the machine directive.

The documents according annex VII part B from the incomplete machinery are created and will commit to state agencies on request in electronic kinds.


10.2 EU Declaration of Conformity



cab Produkttechnik  
 GmbH & Co KG  
 Wilhelm-Schickard-Str. 14  
 D-76131 Karlsruhe  
 Germany

**EU Declaration of Conformity**

We declare herewith that as a result of the manner in which the device designated below was designed, the type of construction and the devices which, as a result have been brought on to the general market comply with the relevant fundamental regulations of the EU Rules for Safety and Health. In the event of any alteration which has not been approved by us being made to any device as designated below, this statement shall thereby be made invalid.

Device:	<b>Print Module</b>
Type:	<b>PX Q</b>
Applied EU Regulations and Norms:	
<b>Directive 2014/30/EU relating to electromagnetic compatibility</b>	<ul style="list-style-type: none"> <li>• EN 55024:2010</li> <li>• EN 55032:2012</li> <li>• EN 61000-3-2:2014</li> <li>• EN 61000-3-3:2013</li> <li>• EN 61000-6-2:2005</li> </ul>
<b>Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment</b>	<ul style="list-style-type: none"> <li>• EN 50581:2012</li> </ul>
<b>Commission delegated directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances</b>	
Signed for, and on behalf of the Manufacturer :	<b>Sömmerda, 23.09.2019</b>
<b>cab Produkttechnik Sömmerda          Gesellschaft für Computer-          und Automationsbausteine mbH          99610 Sömmerda</b>	 <b>Erwin Fascher          Managing Director</b>

10.3 FCC

**NOTE :** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. The equipment generates, uses, and can radiate radio frequency and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user may be required to correct the interference at his own expense.

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