Operator's Manual

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Label Printer

A4+M / A4+T

Operator's Manual
for the following products

Family	Type
A4+M	A4+M/300
	A4+M/600
A4+T	A4+T/300

Edition: 02/2016 - **Part No.** 9008764

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1 Introduction

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.

Notice!
Gives you tips. They make a working sequence easier or draw attention to important working processes.

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 status 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 operating manual.
- The device printer is intended exclusively for printing suitable materials that have been approved by the manufacturer. 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 operating manual, including the manufacturer's maintenance recommendations and specifications.

Notice!
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, printer, 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 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 operating 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 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   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 printer 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

1	Cover
2	Margin stops
3	Roll retainer
4	Ribbon supply hub
5	Ribbon take-up hub
6	Print mechanics
7	Navigator pad
8	Display

Fig. 1   Overview

9	Ribbon deflection roller
10	Printhead retainer with printhead
11	Guides
12	Allen key
13	Printhead locking lever
14	Print roller
15	Guide roller
16	Label sensor
17	Knob for guide adjustment
18	Tear-off plate
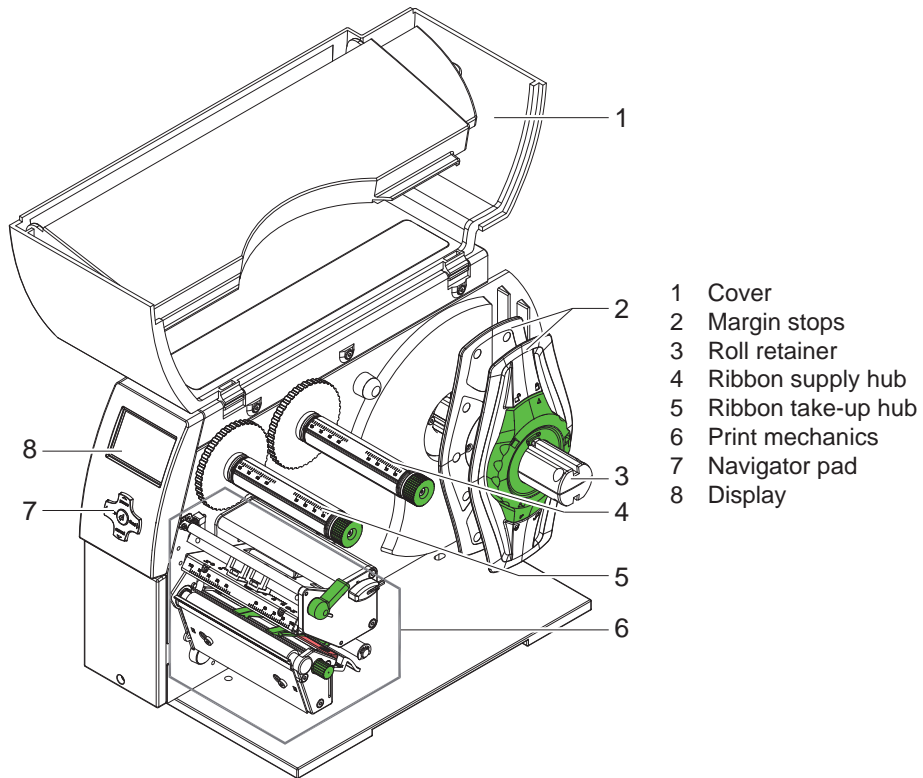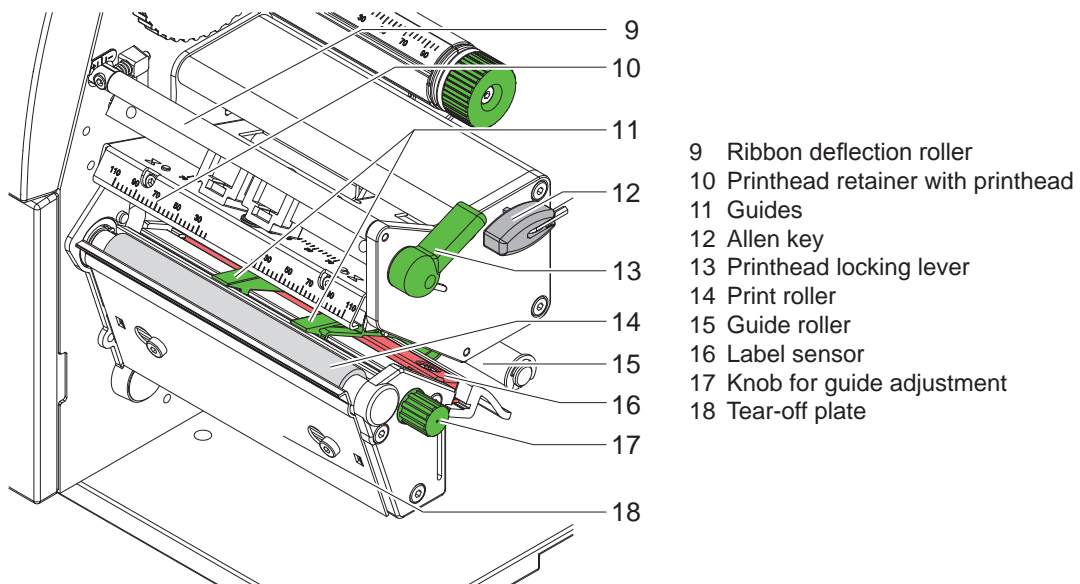
Fig. 2   Print mechanics A4+M

Fig. 3   Print mechanics A4+T

9   Ribbon deflection roller
10   Printhead retainer with printhead
11   Guides
12   Allen key
13   Printhead locking lever
14   Print roller
15   Guide roller
16   Label sensor
17   Knob for guide adjustment
19   Detent pin
20   Pressing roller system
21   Pinch roller

Fig. 4   Connections

22   Power switch
23   Power connection jack
24   Slot for PC Card Type II
25   Slot for CompactFlash memory card
26   Ethernet 10/100 Base-T
27   2 USB master ports for keyboard,
     scanner or service key
28   USB high-speed slave port
29   Serial RS-232 C port

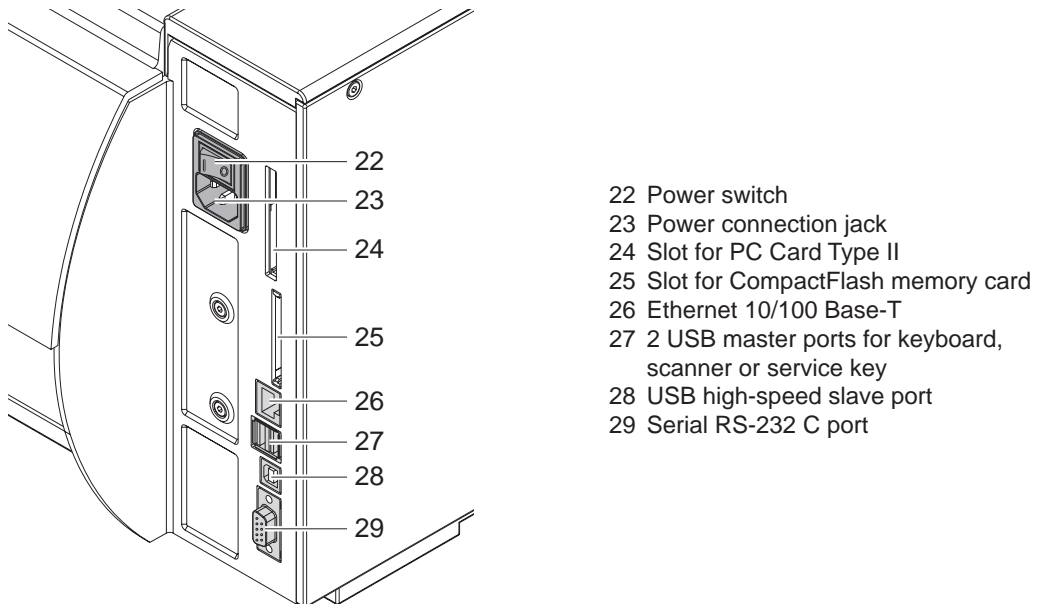## 2.2 Unpacking and Setting-up the Printer

▶ Lift the label printer out of the box via the straps.

▶ Check label printer for damage which may have occurred during transport.

▶ Set up printer on a level surface.

▶ Remove foam transportation safeguards near the printhead.

▶ Check delivery for completeness.

Contents of delivery:

• Label printer

• Power cable

• USB cable

• Documentation

• DVD with label software, Windows driver and documentation

> **Notice!**
> **Please keep the original packaging in case the printer must be returned.**

> **Attention!**
> **The device and printing materials will be damaged by moisture and wetness.**
> ▶ **Set up label printers 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 printer 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 (20).

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 label printer are grounded.**

▶ Connect the label printer to a computer or network by a suitable cable.

For details of the configuration of the individual interfaces ▷ Configuration Manual.

2.4 Switching on the Device

When all connections have been made:

▶ Switch the printer on at the power switch (19).
The printer performs a system test, and then shows the system status `ready` in the display (8).

If an error occurs during the system test, the symbol 🕱 and type of error are displayed.

3.1   Structure of the Control Panel

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

• Issuing, interrupting, continuing and canceling print jobs,

• Setting printing parameters, e.g. heat level of the printhead, print speed, interface configuration, language and time of day (▷ Configuration Manual),

• Start the test functions (▷ 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 control panel make the basic settings of the label printer.

Notice!
It is advantageous, whenever possible, to make adaptations to various print jobs in the software.
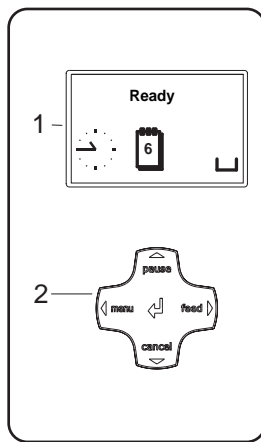
The control panel consists of a graphic display (1) and the navigator pad (2) with five integrated keys.

The graphic display indicates the current status of the printer and the print job, indicates faults and shows the printer settings in the menu.

Fig. 5   Control Panel

3.2   Symbol Displays

The symbols shown in the following table may appear in the status line of the display, depending on the printer configuration. They enable the current printer status to be seen quickly. For the configuration of the status line ▷ the Configuration Manual.

Symbol	Description	Symbol	Description	Symbol	Description
	Clock		Ethernet link status		User memory in the clock circuit
	Date sheet		Temperature of the printhead	MEM	Used memory
	Date/time digital		PPP funds	INP	Input buffer
	Ribbon supply	abc Debug	Debug window for abc programs		Access to memory card
	Wi-Fi signal strength	abc	Control of the lower display line is handed over to an abc program		Printer is receiving data

Table 1   Symbol displays

3.3 Printer States

| State	Display	Description
Ready	`Ready` and configured symbol displays, such as time and date [1]	The printer is in the ready state and can receive data.
Printing label	`Printing label` and the number of the printed label in the print job.	The printer is currently processing an active print job. Data can be transmitted for a new print job. The new print job will start when the previous one has finished.
Pause	`Pause` and the symbol	The printing process has been interrupted by the operator.
Correctable error	(STOP) and the type of error and the number of labels still to be printed.	An error has occurred that can be rectified by the operator without interrupting the print job. The print job can be continued after the error has been rectified.
Irrecoverable error	(STOP) and the type of error and the number of labels still to be printed.	An error has occurred that cannot be rectified without interrupting the print job.
Critical error	and the type of error	An error occurs during the system test. ▶ Switch the printer off and then on again at the power switch or ▶ Press **cancel** key. Call Service if the fault occurs persistently.
Power Save Mode	(ZZZZ) and the key lighting is switched off	If the printer is not used for a lengthy period, it automatically switches to power save mode. ▶ To exit power save mode: Press any key on the navigator pad.

Table 2   Printer states

3.4   Key Functions

The key functions depend on the current printer state:
- Active functions: Labels and symbols on the navigator pad keys light up.
- Active functions light up white in print mode (e. g. **menu** or **feed**).
- Active functions light up orange in the offline menu (arrows, key ↵).

Key		Display	State	Function
menu	lights	`Ready`	**Ready**	To the offline menu
feed	lights	`Ready`	**Ready**	Feeds a blank label
pause	lights	`Ready`	**Ready**	After the end of a print job, reprint the last label
		`Printing label`	**Printing label**	Interrupt print job, printer goes into "Pause" state
		`Pause`	**Pause**	Continue the print job, printer goes into "Printing label" state
	flashes	(STOP)	**Correctable error**	Continue the print job after rectifying the error, printer goes into "Printing label" state
cancel	lights	`Ready`	**Ready**	Delete internal memory, the last label can no longer be reprinted.
		`Printing label`	**Printing label**	Short press → cancels the current print job
		`Pause`	**Pause**	Longer press → cancels the current print job and deletes all print jobs
		(STOP)	**Correctable error**	
	flashes	(STOP)	**Irrecoverable error**	
↵	lights	(STOP)	**Error**	Call Help - Concise information for rectifying the fault will be displayed

Table 3   Key functions in the print mode

Key	Menu	Parameter setting	
		Parameter choice	**Numeric value**
↑	Return from a submenu	-	Increase of the number at the cursor position
↓	Jump into a submenu	-	Decrease of the number at the cursor position
←	Menu option to the left	Sheets to the left	Cursor shift to the left
→	Menu option to the right	Sheets to the right	Cursor shift to the right
↵	Start of a selected menu option	Confirmation of the selected value	
	Pressing 2 s: Leaving the offline menu	Pressing 2 s: Abort without changing the value	

Table 4   Key functions in the offline menu

> ℹ **Notice!**
> **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 or Continuous Media from Roll

4.1.1   Positioning the Media Roll on the Roll Retainer
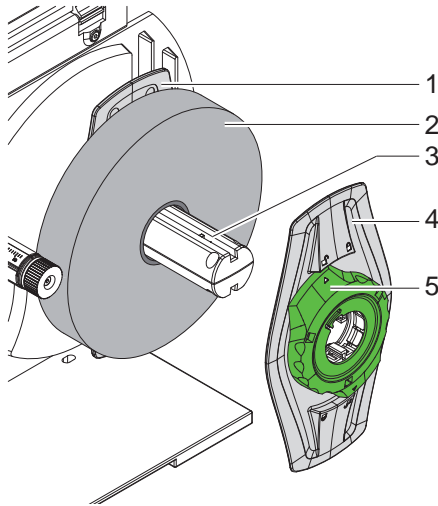

Fig. 6   Loading media from roll
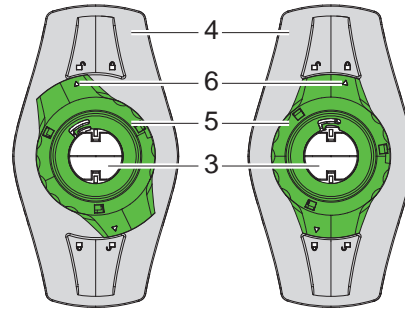
Fig. 7   Margin stop unfixed (left) and fixed (right)

1. Open cover (13).
2. Turn ring (5) counterclockwise, so that the arrow (6) points to the symbol 🔓, and thus release the margin stop (4).
3. Remove the margin stop (4) from the roll retainer (3).
4. Load label roll (2) on the roll retainer (3) in such a way that the labels can be inserted into the printhead in the right position. The printing side of the labels must be visible from above.
5. Re-mount the margin stop (4) onto the roll retainer (3). Push the margin stop (4) until both margin stops (1, 4) touch the label roll (2) and a clear resistance is encountered.
6. Turn ring (5) clockwise, so that the arrow (6) points to the symbol 🔒, and thus fix the margin stop (4) on the roll retainer (3).
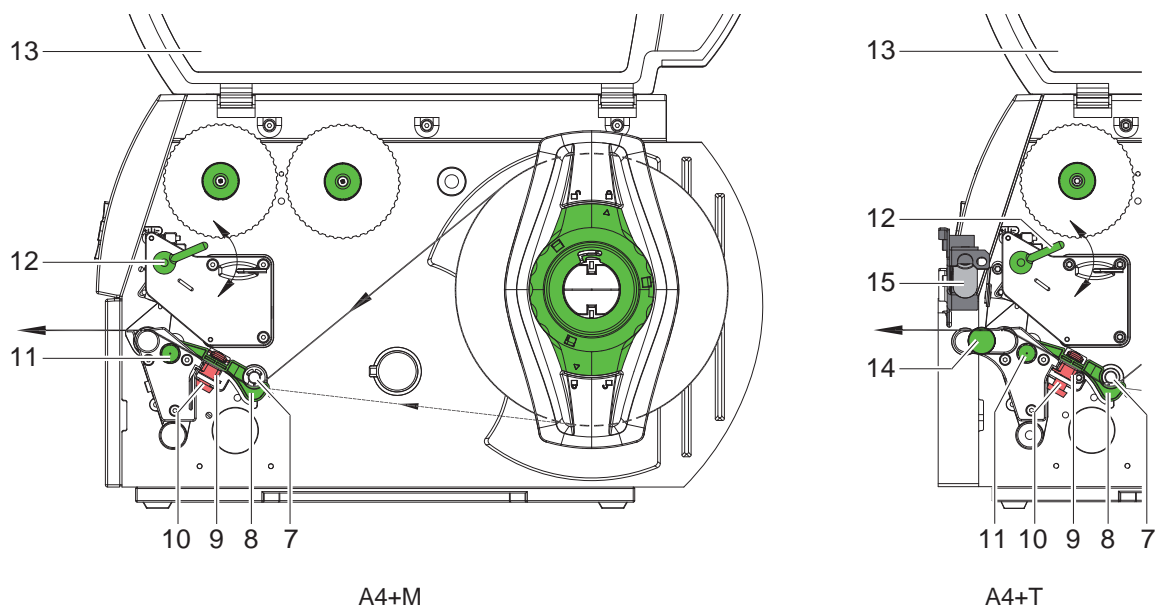

A4+M   A4+T

Fig. 8   Material feed path

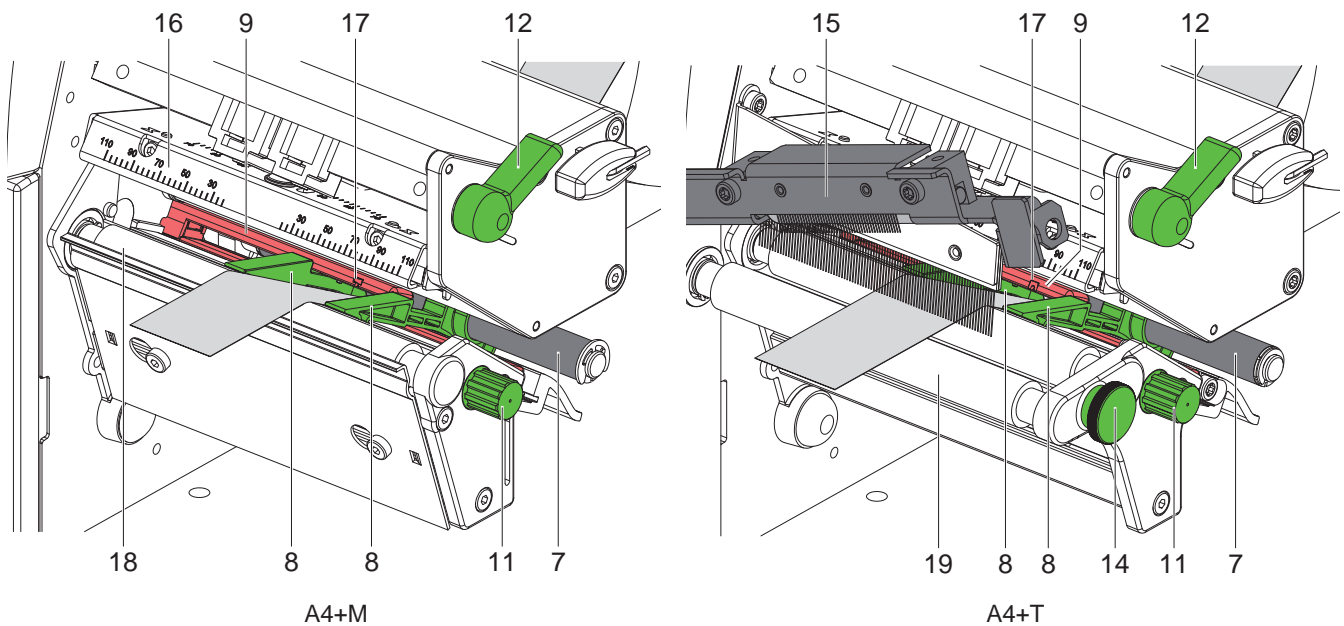### 4.1.2   Inserting a Media Strip into the Printhead

Fig. 9   Inserting a media strip into the printhead

1. Turn lever (12) counterclockwise to lift the printhead.
2. A4+T only : Pull the detent pin (14). The pressing roller system (15) will swing upwards.
3. Move guides (8) apart with the knob (11) until the media can pass between them.
4. Push media strip below the guide roller (7) between the guides (8).
5. Guide media strip through the label sensor (9) in such a way that it leaves the print mechanics at A4+M between printhead (16) and the print roller (18) respectively at A4+T between pressing roller system (15) and pinch roller (19).
6. A4+T only : Pull the detent pin (14). Push the pressing roller system (15) downwards and lock it with the detent pin.
7. Move guides (8) against the edges of the material by turning the knob (11).

4.1.3   Setting the Label Sensor

The label sensor (9) can be shifted perpendicular to the direction of paper flow for adaptation to the media. The sensor unit of the label sensor is visible from the front through the print unit and is marked with an indentation (17) in the label sensor retainer. When the printer is switched on, a yellow LED illuminates the sensor position.

▶ Loosen the knurled knob (10, Fig. 8) and position label sensor by moving the knurled knob 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.
▶ Re-tighten the knurled knob.
▶ Turn lever (12) clockwise to lock the printhead.

4.2 Loading Fanfold Labels
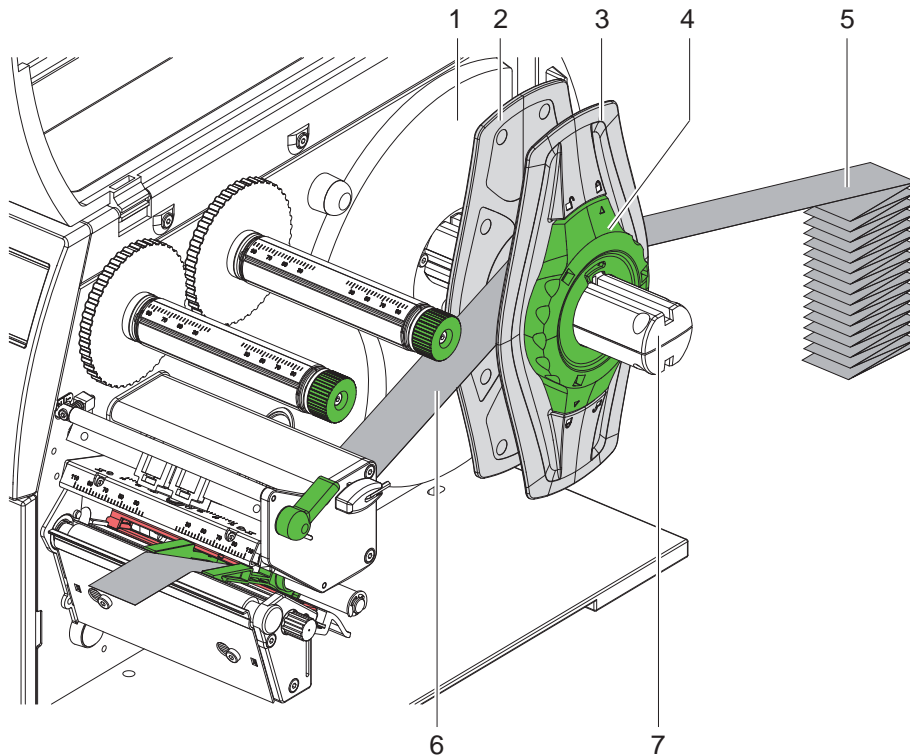
Fig. 10   Loading fanfold labels

1. Position label stack (5) behind the printer.
2. Turn ring (4) counterclockwise, so that the arrow points to the symbol ⌒, and thus release the margin stop (3). Leave the margin stop on the roll retainer (7).
3. Push the inner margin stop (2) against the chassis (1) until it stops. Thus the other margin stop (3) will be moved outwards.
4. Push label strip between the margin stops (2,3) to print unit via the roll retainer (7). Ensure that the labels on the strip are visible from above.
5. Push the outer margin stop (3) until both margin stops (2, 3) touch the label strip (6) without clamping or bending it.
6. Turn ring (4) clockwise, so that the arrow points to the symbol ⌒, and thus fix the margin stop (3) on the roll retainer.
7. Insert label strip into printhead (▷ 4.1.2 on page 13).
8. Set label sensor (▷ 4.1.3 on page 13).

4.3   Loading Transfer Ribbon

ℹ Notice!
With direct thermal printing, do not load a transfer ribbon; if one has already been loaded, remove it.
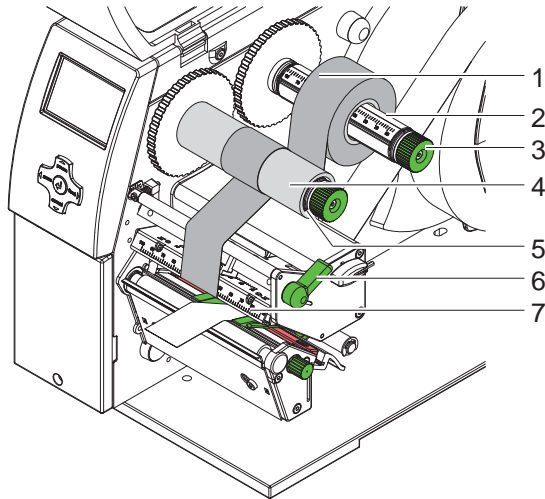
Fig. 11   Loading transfer ribbon
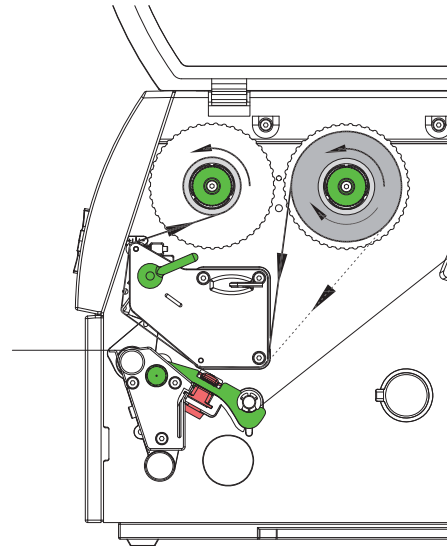
Fig. 12   Transfer ribbon feed path

1. Clean printhead before loading the transfer ribbon (▷ 6.3 on page 19).
2. Turn lever (6) counterclockwise to lift the printhead.
3. Slide transfer ribbon roll (1) onto the ribbon supply hub (3) so that the color coating of the ribbon faces downward when being unwound.
4. Position the ribbon roll in such a way that both ends of the roll show identical scale values.
5. Hold transfer ribbon roll (1) firmly and turn knob (3) on ribbon supply hub counterclockwise until the transfer ribbon roll is secured.

ℹ Notice!
To rewind the transfer ribbon use a core with a width between the width of the supply roll and 115 mm.

6. Slide suitable transfer ribbon core (4) onto the transfer ribbon take-up hub (5). Position and secure it in the same way as the supply roll.
7. Guide transfer ribbon through the print unit as shown in Fig. 12.
8. Secure starting end of transfer ribbon to middle of the ribbon core (1) with adhesive tape. When using cores which are wider than the transfer ribbon use the scale (7) at the printhead retainer to adjust the path of the ribbon. Ensure counterclockwise rotation direction of the transfer ribbon take-up hub.
9. Turn transfer ribbon take-up hub (5) counterclockwise to smooth out the feed path of the transfer ribbon.
10. Turn lever (6) clockwise to lock the printhead.

4.4 Setting the Feed Path of the Transfer Ribbon

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

ℹ **Notice!**
The adjustment is best carried out during printing.
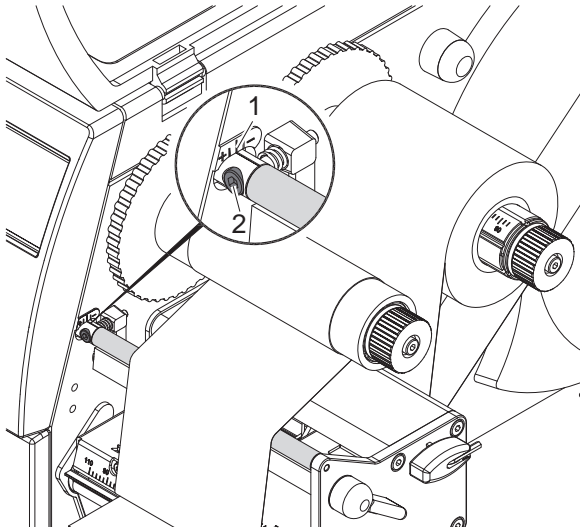
Fig. 13   Setting the feed path of the transfer ribbon

1. Read current setting on the scale (1) and record if necessary.
2. Turn screw (2) with Allen key and observe the behavior of the ribbon.
   In the + direction, the inner edge of the ribbon is tightened, and the outer edge is tightened in the - direction.

4.5 Setting the Head Locking System
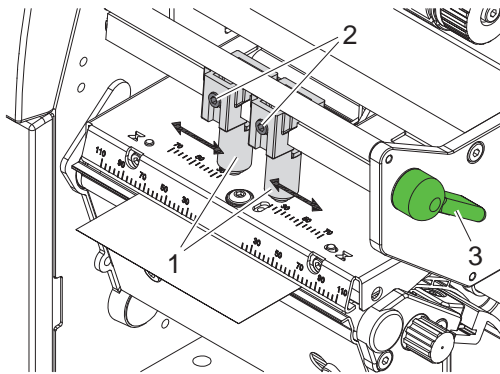
Fig. 14   Setting the head locking system

The printhead is pushed on via two plungers (1). In the basic setting the plungers are set in the middle of the printhead retainer. This setting can be used for the most applications.

If the print density decreases in the outer areas when using very large media, the plungers can be displaced :

1. Turn lever (3) clockwise to lock the printhead.
2. Loosen threaded pins (2) at the plungers (1) with Allen key.
3. Displace plungers symmetrically as necessary maximal to the scale value 70.
4. Tighten the threaded pins (2).

5.1 Printhead Protection

> **⚠ Attention!**
> **Printhead damage caused by improper handling!**
> ▶ **Do not touch the heating elements of the printhead with the fingers or sharp objects.**
> ▶ **Ensure that the material is clean.**
> ▶ **Ensure that the material surfaces are smooth. Rough material act like emery paper and reduce the service life of the printhead.**
> ▶ **Print with the lowest possible printhead temperature.**

The printer is ready for operation when all connections have been made and labels and, if applicable, the transfer ribbon have been loaded.

5.2 Synchronization in Cut Mode

To guarantee the correct length of the first label a cut prior print job is required :

▶ Activate in the printer driver menu **General > Print Settings > Advanced Setup** the setting **"cut before labels"**.

or

▶ For direct programming use the command **C s** ▷ Programming Manual.

5.3 Suppressing Backfeed (A4+T only)

> **ⓘ Notice!**
> **Feeding back the material to the printhead in the cut mode or between print jobs is not allowed for A4+T.**

To avoid the backfeed :
▶ In the printer driver menu **General > Print Settings > Advanced Setup > Options**
• activate the setting **"Ignore label position"** and
• deactivate the setting **"Single buffer mode"**.

or

▶ For direct programming ▷ Programming Manual
• use the command **O F** and
• do not use the command **O S**.

5.4 Avoiding Loss of Material (A4+T only)

> **!** **Attention!**
> **Loss of material!**
>
> **At A4+T a media backfeed from the cutting edge to the printhead is not allowed due to the reliability of the media transport.**
>
> **Therefore every interruption of the continuos print process has the following consequences :**
> - **The print of the current label/section will be completed. The printed label will be fed through the cutter and will be cut. The media between printhead and cutter will remain blank.**
> - **Upon resumption of printing the media between printhead and cutter will not be fed back. The print will be started at the media position currently laying under the printhead.**
> - **Following blank sections are generated, which cannot be used.**
> - **For operation with cutter the length of the blank section is at least 50 mm for continuos material.**
>   **For structured media where the print image has to be synchronized to the media transport the loss of material can reach a length of more than 300 mm.**
>
> **To minimize the loss of material it is necessary to avoid interruptions of the continuos print process.**
> ▶ **Interrupt the print process with the pause key only if it is absolute necessary.**
> ▶ **Avoid print jobs with a small amount of labels/sections, especially single prints.**

Optimization of the Data Transfer

If sequent labels/sections contain differing information, the internal preparation of the second sections must be completed before the printing of the first section has been finished !

Otherwise the first section will be fed to the cutter without printing the next section. The print of the second section begins only after cutting off the first section.

Therefore it is necessary to minimize the data to be transferred. i.e. to avoid transferring complete label descriptions and to transfer the changing data only :

▶ Activate In the printer driver menu **General > Print Settings > Advanced Setup > Options** the setting **"Force optimization for all software"** .
or

▶ For direct programming use the replace command **R** for changing data ▷ Programming Manual.

6.1   Cleaning Information

> **Danger!**
> **Risk of death via electric shock!**
> ▶ **Disconnect the printer from the power supply before performing any maintenance work.**

The label printer 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 printer can be damaged by aggressive cleansers.**
> **Do not use abrasive cleaners or solvents for cleaning the external surfaces or modules.**

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

▶ The cover of the printer can be cleaned with a standard cleanser.

6.2   Cleaning the Print Roller

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

▶ Lift the printhead.

▶ Remove labels and transfer ribbon from the printer.

▶ Remove deposits with roller cleaner and a soft cloth.

▶ If the roller appears 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.**

> **Attention!**
> **Risk of injury from the hot printhead line.**
> **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 special cleaning pen or a cotton swab dipped in pure alcohol.

▶ Allow printhead to dry for 2–3 minutes before commissioning the printer.

7 Fault Correction

7.1 Types of Errors

The diagnostic system indicates on the screen if an error has occurred. The printer is set into one of the three possible error states according to the type of error.

State	Display	Key	Remark
Correctable error	(STOP)	**pause** flashes **cancel** lights	▷ 3.4 on page 11
Irrecoverable error	(STOP)	**cancel** flashes	
Critical fault	☠	-	

Table 5   Error states

7.2 Problem Solution

Problem	Cause	Remedy
Transfer ribbon creases	Transfer ribbon deflection not adjusted	Adjust the transfer ribbon deflection. ▷ 4.4 on page 16
	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 19
	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 19
	Printhead is defective (failure of heat elements)	Change the printhead. ▷ Service Manual.
Horizontal white lines in the print image	Printer is used with the `backfeed > smart` in the cut or peel-off mode	Set the `backfeed > always` in the setup. ▷ Configuration Manual.
Print image is irregular, one side is lighter	Printhead is dirty	Clean the printhead ▷ 6.3 on page 19

Table 6   Problem solution

7.3   Error Messages and Fault Correction

Error message	Cause	Remedy
ADC malfunction	Hardware error	Switch the printer off and then on. If error recurs call service.
Barcode error	Invalid barcode content, e.g. alphanumeric characters in a numerical barcode	Correct the barcode content.
Barcode too big	The barcode is too big for the allocated area of the label	Reduce the size of the barcode or move it.
Battery low	Battery of the PC card is flat	Replace battery in the PC card.
Buffer overflow	The input buffer memory is full and the computer is still transmitting data.	Use data transmission via protocol (preferably RTS/CTS).
Card full	No more data can be stored on the memory card	Replace card.
Cutter blocked	Cutter cannot return into its home position and stays in an undefined position	Switch off the printer. Remove material. Switch on the printer. Restart print job. Change material
	No cutter function	Switch the printer off and then on. If error recurs call service.
Cutter jammed	The cutter is unable to cut the labels but is able to return into its home position	Press the **cancel** key. Change material.
Device not conn.	Programming addresses a non-existent device	Either connect this device or correct the programming.
File not found	Requested file is not on the card	Check the contents of the card.
Font not found	Error with the selected download font	Cancel current print job, change font.
FPGA malfunction	Hardware error	Switch the printer off and then on. If error recurs call service.
Head error	Hardware error	Switch the printer off and then on. If error recurs replace printhead.
Head open	Printhead not locked	Lock printhead.
Head too hot	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.
Invalid setup	Error in the configuration memory	Re-configure printer. If error recurs call service.
Memory overflow	Current print job contains too much information, e.g. selected font, large graphics	Cancel current print job. Reduce amount of data to be printed.
Name exists	Duplicate usage of field name in the direct programming	Correct programming
No DHCP server	The printer is configured for DHCP, but there is no DHCP server, or the DHCP server is not currently available.	Switch off DHCP in the configuration, and assign a fixed IP address. Please contact your network administrator.
No label found	There are labels missing on the label material	Press **pause** key 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.
	Printer is loaded with continuous paper, but the software is set on labels	Cancel current print job. Change the label format set in the software. Restart the print job.
No label size	The size of the label is not defined in the programming.	Check programming.
No Link	No network link	Check network cable and connector. Please contact your network administrator.

Error message	Cause	Remedy
No record found	Refers to the optional memory card; database access error	Check programming and card contents.
No SMTP server	The printer is configured for SMTP, but there is no SMTP server, or the SMTP server is not currently available.	Switch off SMTP in the configuration. **Caution!** Then a warning cannot be sent by e-mail (EAlert). Please contact your network administrator.
No Timeserver	Timeserver is selected in the configuration, but there is no Timeserver, or the Timeserver is not currently available.	Switch off Timeserver in the configuration. Please contact your network administrator.
Out of paper	Out of label roll	Load labels.
	Error in the paper feed	Check paper feed.
Out of ribbon	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 19 Load transfer ribbon Restart print job.
	The printer is loaded with thermal labels, but the software is set to transfer printing	Cancel current print job. Set software to direct thermal printing. Restart print job
Protocol error	Printer has received an unknown or invalid command from the computer.	Press the **pause** key to skip the command or press the **cancel** key to cancel the print job.
Read error	Read error when reading from the memory card	Check data of the card. Backup data, reformat card.
Remove ribbon	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
Structural err.	Error in the file list of the memory card, data access is uncertain.	Format memory card.
Unknown card	Card not formatted, Type of card not supported	Format card, use different type of card.
USB error Device stalled	A USB device has been detected, but it is not working.	Do not use the USB device.
USB error Too much current	The USB device consumes too much current.	Do not use the USB device.
USB error Unknown device	Failure to detect USB device	Do not use the USB device.
Voltage error	Hardware error	Switch the printer off and then on. If error recurs call service. It is shown which voltage has failed. Please note.
Write error	Hardware error	Repeat the write process, reformat card.
Write protected	PC card write protection is activated.	Deactivate the write protection.
Wrong revision	Error when updating the firmware. Firmware not compatible with the hardware version	Load the compatible firmware.

Table 7   Error Messages and Fault Correction
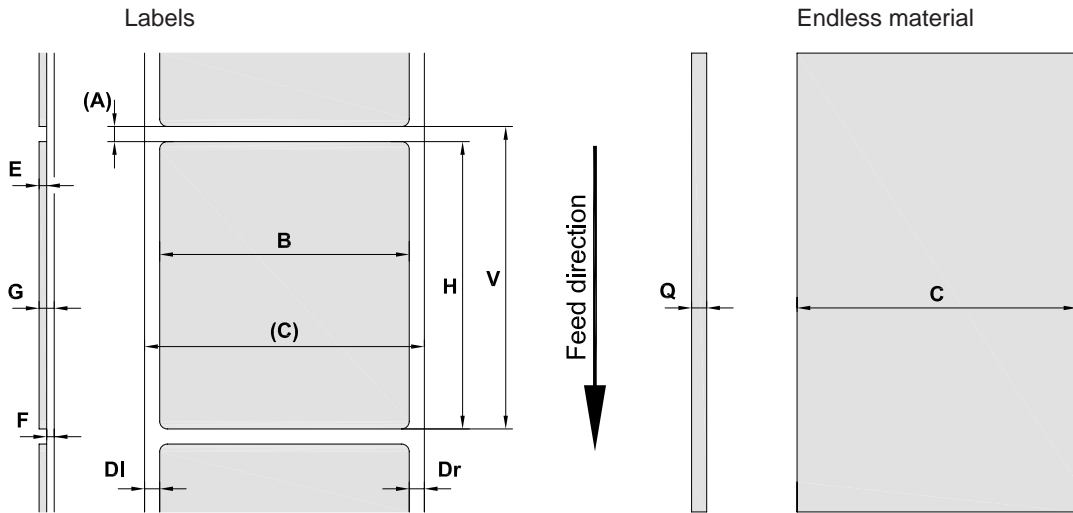
8.1 Media Dimensions

Labels   Endless material

Fig. 15   Label / endless material dimensions

Dim.	Designation	Dim. in mm
B	Label width	4 - 106
H	Label height with printhead 300 dpi	5 - 4000
	with printhead 600 dpi	5 - 1000
-	Tear-off length	> 30
-	Cut length	
	with cutter CU4	> 5
	with perforation cutter PCU4	> 12
-	Perforation length	> 5
A	Label distance	> 2
C	Width of liner or endless material	10 - 110
	heat shrink tubing	3,5 - 110
Dl	Left margin	≥ 0
Dr	Right margin	≥ 0
E	Label thickness	0,025 - 0,7
F	Liner thickness	0,03 - 0,1
G	Thickness label with liner	0,055 - 0,8
Q	Thickness endless material	0,055 - 0,8
	heat shrink tubing (pressed)	< 0,8
	heat shrink tubing (not pressed)	< 4,5
V	Label feed	> 7
	• Small label sizes, thin materials or strong glue can lead to limitations. Critical applications need to be tested and cleared.	
	• Note the bending stiffness ! Material must be flexible to follow the radius of the print roller !	
	• For narrow materials a higher minimum thickness is required, e.g. Q = 0,4 at C = 5 !	

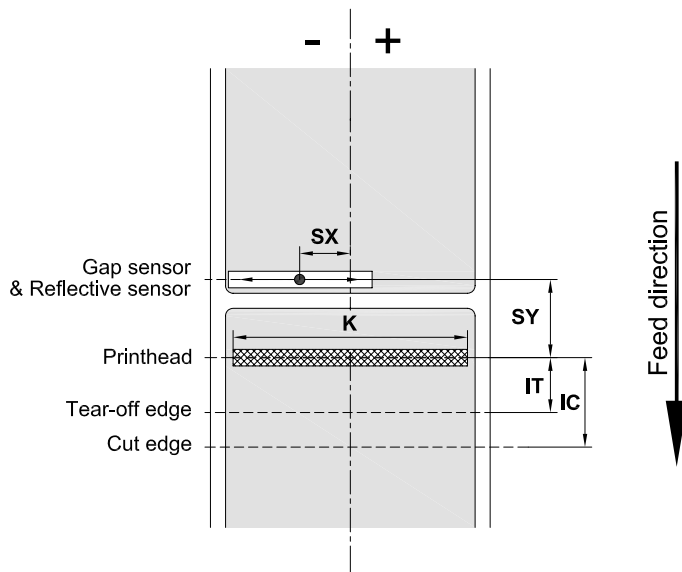Table 8   Label / endless material dimensions

8.2 Device Dimensions

Fig. 16   Device dimensions

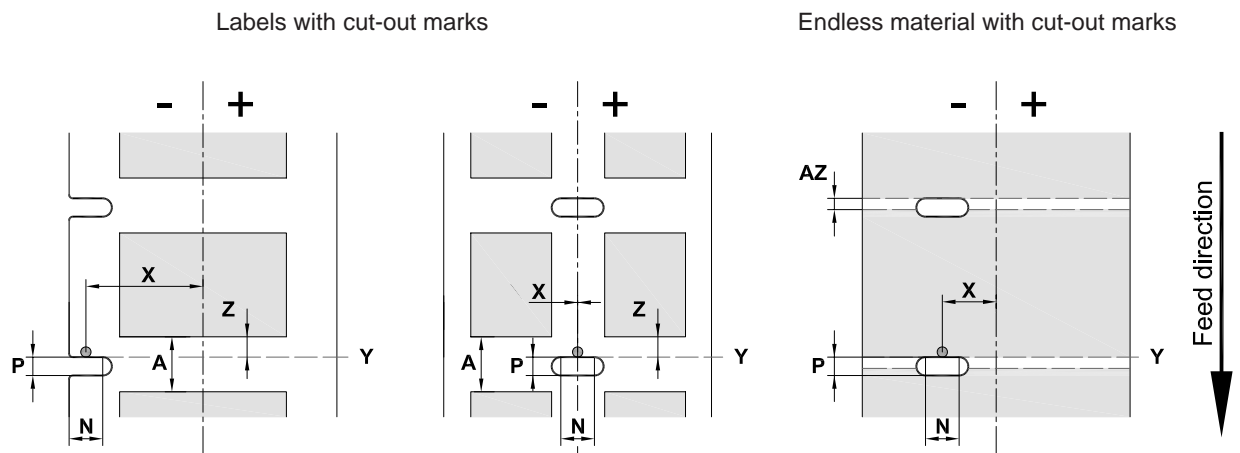| Dim.	Designation	Dim. in mm	
		A4+M	**A4+T**
IC	Distance printhead - cut edge		
	with cutter CU4	18,8	45,6
	with perforation cutter PCU4	19,5	46,3
	with stacker ST4	35,3	62,1
IT	Distance printhead - tear-off edge	13,5	-
-	Print width	105,6	
SX	Distance gap/reflective sensor - middle of paper track	-53 - ±0	
	i.e. permissible distance of reflex or cut-out marks from the middle of the material		
SY	Distance gap/reflective sensor - printhead	46,0	

Table 9   Device dimensions

8.3   Reflex Mark Dimensions

Labels with reflex marks   Endless material with reflex marks
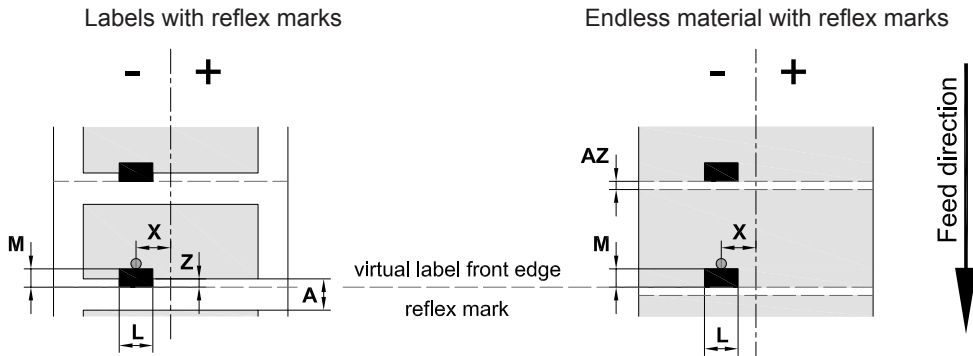
Fig. 17   Reflex mark dimensions

Dim.	Designation	Dim. in mm
A	Label distance	> 2
AZ	Distance between print zones	>2
L	Width of reflex mark	> 5
M	Height of reflex mark	3 - 10
X	Distance mark - material edge	-53 - ±0
Z	Distance virtual label front edge - actual label front edge ▶ Adjust software settings	0 up to A / recomm. : 0
	• Reflex marks must be on the back side of the material (liner). • Label sensor for reflex marks on the top side on request. • Specification is valid for black marks. • Recognition of colored marks may fail. ▶ Preliminary tests are needed.	

Table 10   Reflex mark dimensions

8.4 Cut-out Mark Dimensions

Labels with cut-out marks   Endless material with cut-out marks

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

Fig. 18   Cut-out mark dimensions

Dim.	Designation	Dim. in mm
A	Label distance	> 2
AZ	Distance between print zones	>2
N	Width of cut-out mark	> 5
P	Height of cut-out mark	2 - 10
X	Distance mark - middle of paper track	-53 - ±0
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

Marginal cut-out   Long hole cut-out   Rectangular cut-out   Circular cut-out   Cut-out between the labels

Not recommended !   Not recommended !
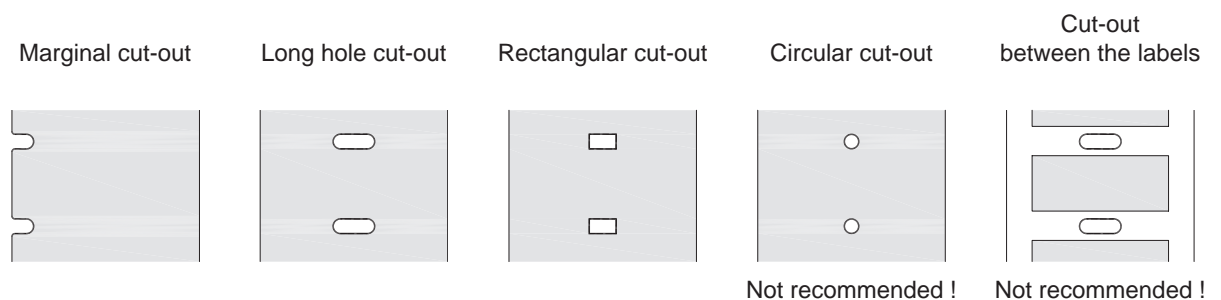
Fig. 19   Samples for cut-out marks

9.1 Reference to the EU Declaration of Conformity

The printers of the A+ series comply with the relevant fundamental regulations of the EU Rules for Safety and Health:

- Directive 2014/35/EU relating to electrical equipment designed for use within certain voltage limits
- Directive 2014/30/EU relating to electromagnetic compatibility
- Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment

EU Declaration of Conformity

▷ https://www.cab.de/media/pushfile.cfm?file=2536 📄

9.2 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.