G+D
Currency Technology

Site and Facility Requirements

BPS® C5

Original operating instructions

Art.-No. 527217001
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G+D
Currency Technology

Note

Trademarks

Disclaimer

The specifications stated in this documentation do not represent guaranteed characteristics.

This documentation is based on the machine type BPS® C5, hardware release 3.1 and software release 3.0.

Subject to technical changes.

CE

This product meets the safety requirements of the relevant EU directives and complies with the EN standards as listed in the EU Declaration of Conformity.

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Technical support	→ *Chapter B "Technical Support", p. 35*
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Table of Contents

1 About This Manual

This chapter contains the following information:

- Overview of all manuals in the BPS C5 operating instructions
- Target group of this manual
- Content and structure of this manual
- A description of the conventions used in this manual

1.1 Overview of All Manuals for the BPS C5 System Operating Instructions

This manual forms part of the System Operating Instructions. The following manuals form part of the System Operating Instructions:

Site and Facility Requirements	The Site and Facility Requirements contain the technical data for the product and describe the conditions that must be met at the installation site for safe operation of the product.
Transport Instructions	The Transport Instructions are intended for employees of logistics companies. They contain outline information for secure transportation of the product to the installation location.
Quick Start Guide	These quick instructions are intended for all users of the product. They describe the first steps without using text so that the user can operate the product. The quick instructions are supplied with the product.
Safety Information	The safety information is intended for all users of the product. It describes all the necessary safety measures for hazard-free use of the product. The safety information is supplied with the product.
Installation Manual	The Installation Manual describes how to set up and connect the product.
User Manual	The user manual is intended for all users of the product and contains the following information about: ● Operating the product and straightforward cleaning and maintenance work that is not performed by Service ● Installing and using the software applications
Service Manual	The Service Manual describes maintenance work carried out on the product by field engineers. The maintenance work includes: ● The replacement of parts for repairs (corrective measures) including the necessary adjustment work ● Installing and using the software application for Service

	You will only receive a service manual after you or your staff have received training from G+D to become a field engineer.
Troubleshooting Manual	The Troubleshooting Manual offers an interactive troubleshooting including links to detailed procedures and video tutorials. The Troubleshooting Manual is only available as part of the electronic documentation library EB Suite. The contents of the Troubleshooting Manual depend on your access rights.
Spare Parts Catalog	Please use the electronic spare parts catalog for Banknote Processing Systems on CD/DVD to order spare parts.

1.2 Target Group of this Manual

The manual is intended for the owner of the system.

1.3 Content and Structure of this Manual

In addition to this chapter, this manual contains the following parts:

- In the → *"Safety" chapter*, you will find important information about your safety.
- In the → *"General Information about the Product" chapter*, you will find information about:
  - Standard version
  - Variants
  - External devices
- In the → *"System Data" chapter*, you will find information regarding the technical data.
- In the → *"Installation Room" chapter*, you will find information regarding the conditions that must pertain in the installation room.
- In the → *"Installation" chapter*, you will find information required in advance for transportation and installation.
- In the → *"Disposal" chapter*, you will find information required for disposal.

1.4 Conventions Used in this Manual

1.4.1 General Document Conventions

The following formatting styles are used as standard to identify certain information:

Conventions	Definition
This text is important.	Underlined text indicates important information.
Mechanical operating control	Names of mechanical operating controls like keys or switches are written in bold. Example: Press **Start** on the device.
GUI Text	Objects in the graphical user interface (GUI), e. g. a button, are in bold. Example: Click **OK**.
Menu option > Menu option	Menu names are in bold. Angle brackets indicate navigation through menus. Example: Select **File > Print** from the menu.
'User input'	User inputs are in single quotes. Example: Enter **port** = '8080'.
<Placeholder>	Placeholders for display text or user input are in angle brackets. Example: Enter <Password>.
[Key]	Keys on the keyboard are in square brackets. Example: Press [Alt] + [p] to print the file.
File or path	File names or paths are in italics. Example: Open *readme.txt*.
`Command`	Commands are in Courier font.

Conventions	Definition
	Example: Open an input window and enter `ping`.
`Code`	Codes are in courier font.
"Title"	Titles of reports, logs, modes, windows, etc. are in quotation marks. Example: The "xy" window appears.
→ *"Manual title"*	References to other manuals are in italics. The manual title is also in quotation marks. Example: → *"Service Manual"*
→ *Chapter "Chapter heading"*	References to other chapters/sections are in italics. The title of the chapter/section is also in quotation marks. For example, → *"Jam Recovery"* chapter
Homepage Giesecke +Devrient	References to a website address are in italics.
1. list entry 2. list entry	In numbered lists, make sure you follow the sequence of list entries.
• list entry • list entry	In unnumbered lists, the sequence of list entries is not important.
a) list entry b) list entry	In alphabetical lists, the list entries give alternatives.
	This symbol identifies important information.
*	* indicates optional components.

Conventions	Definition
	Inquire if the option is available on your machine.
[1]	Numbers in square brackets indicate individual operational steps. You must carry out these steps in the sequence indicated.
⇨	An arrow as shown after a step indicates the result of that step.

1.4.2 Document Conventions for Procedures (Instructions)

This section explains how procedures (instructions) are set out. Follow procedures step by step in the specified order.

Requirements for the Procedure

- Requirement 1
- Requirement 2

DANGER
Safety information before the procedure
Applies to the whole procedure
Observe the measures to prevent risks at each step.

Procedure

[1] Perform this step.

[2] Perform this step. Note the image above.

⇨ Result of this step

Figure 1: Image of a Result

1

Secondary Steps

[3] To perform this step:

[3-1] Perform this secondary step.

[3-2] Perform this secondary step.

Prompts to Skip or Repeat Steps

[4] Prompt, e.g. has the error been rectified?

No: → **[5]**

Yes: → **[6]**

[5] Only carry out this step if you answered the above prompt with No.

Continue with: → **[7]**

[6] Only carry out this step if you answered the above prompt with Yes.

Continue with: → **[7]**

[7] Perform this step.

Alternative Steps

[8] Select the appropriate alternative:

For variant A: → **[8a]**

For variant B: → **[8b]**

[8a] **Variant A**

[8a-1] Perform this step for variant A.

[8a-2] Perform this step for variant A.

[8b] **Variant B**

[8b-1] Perform this step for variant B.

Result ⇨ Result of the procedure

1.4.3 Figures Used

The screenshots used are examples and may differ from what is actually shown on the display.

2 Safety

Anyone who works on our product must have previously read and understood the system operating instructions and especially the safety instructions they contain. Our product may only be operated and maintained by properly trained and authorized personnel. Instruct personnel that all work is to be carried out safely.

This chapter contains the following information:

- Overview of the general symbols for safety information
- Overview of the symbols identifying specific hazards
- Safety instructions for BPS C5

2.1 Safety Information Symbols

DANGER

The symbol together with the signal word DANGER indicates an immediate risk to life or health.

Ignoring this warning will result in death or serious injury.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

WARNING

The symbol together with the signal word WARNING indicates a possible risk to life or health.

Ignoring this warning may result in death or serious injury.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

CAUTION

The symbol together with the signal word CAUTION indicates a possible hazard to health.

Ignoring this warning may result in minor injury.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

NOTICE

This symbol, with the signal word NOTICE, is used to identify warning information.

Ignoring this information may result in damage to parts of the product or jeopardize data consistency.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

2.2 Symbols Used to Identify Specific Hazards

DANGER

Risk of crushing

This symbol indicates a danger from crushing by moving parts.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

DANGER

Risk of electric shock

This symbol indicates a danger of electric shock.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

DANGER

Risk of laser radiation

This symbol indicates a danger from laser radiation.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

DANGER

Risk from LED radiation

This symbol indicates a danger from LED radiation.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

DANGER
Risk of burns
This symbol indicates a danger from burns from hot parts.
The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

DANGER
Risk of tripping
This symbol indicates a risk of tripping.
The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

2.3 Safety Information

2.3.1 Proper Use

Our product has been constructed using the latest technology and is safe for operation. For your safety, you must use it appropriately and properly.

You must comply with the necessary safety measures for hazard-free use of the product. Failure to follow these instructions can put lives at risk or can damage the product.

Always take notice of the safety warnings, even if you are an experienced user with good system knowledge.

Proper Use

A banknote processing system may only be used to check banknotes for denomination, authenticity, and condition, to count and to sort them.

Fast Deposit Processing (FDP) is permitted.

The processing of tickets is permitted.

Improper Use

Improper use, for example, the singling of hard objects such as coins, paper clips and staples, is not permitted and will result in the invalidation of the warranty.

2.3.2 Prohibition of Unauthorized Modifications or Changes

For safety reasons, no changes may be made to the product without informing and receiving written approval from the manufacturer.

Any unauthorized structural changes or additions invalidate the EU Declaration of Conformity for the product.

Only genuine spare parts may be used for repair.

2.3.3 Circumstances Under Which the Product May Not Be Operated

The product may not be operated if the ambient and operating conditions listed in the → *"BPS C5 Site and Facility Requirements"* section of the system operating instructions are not fulfilled.

If the product is not in an operational state for technical or other reasons, you must prevent the product from being started up.

2.3.4 Safety Information to Protect Persons

Be sure to comply with national accident prevention regulations.

When working on the product, respect the following:

- Avoid wearing loose-fitting or open clothing.
- Remove ties, rings, watches, and jewelry before beginning work.
- Protect long hair with a scarf or hair net.

Refrain from any working method that may impair the operational safety of the product. Proceed in accordance with the safety information specified in the system operating instructions.

Ensure that unauthorized persons are kept away from the product.

Only operate the product when it is in perfect working condition.

Do not remove any safety devices. Do not disable any safety devices. This can put lives at risk or cause damage to the product.

Take care that the product is checked at least once per day for any externally verifiable damage or defects. Immediately report any safety-related changes (including in the operating behavior) to the department responsible.

Ensure that the product is only operated when in perfect working condition.

Safety devices must be checked after completing the service work. Log that the check has been performed and document the results.

2.3.5 Safety Information on LED Radiation

This section contains safety information on optional components or external equipment containing LED radiation sources.

These components or devices are classified under IEC 62471 as LED devices.

WARNING
LED radiation
can cause damage to the eyes.
The ban on unauthorized alterations or changes applies universally to the mechanical, optical, and electronic parts of these components.
Improper usage can be hazardous due to dangerous LED radiation.

Opening the BPS C5 product does not increase the LED risk group or the risk to the operator.

2.3.6 Safety Information on Laser Radiation

This section contains safety information on optional components or external equipment containing laser radiation sources.
These components or devices are classified as laser products under DIN EN 60825-1, Safety of Laser Products.

WARNING
Laser radiation
can cause damage to the eyes.
The following section contains information on whether the product is equipped with components that are a source of laser radiation. If it is, it is necessary to observe the respective safety information in this section.
The ban on unauthorized alterations or changes applies universally to the mechanical, optical, and electronic parts of these components.
Improper usage can be hazardous due to dangerous invisible laser radiation.

Opening the BPS C5 product does not increase the laser risk group or the risk to the operator.

2.3.6.1 Barcode Reader

CAUTION

Laser radiation

The use of controls, settings, or procedures other than those described here may result in hazardous laser radiation.

Customers should under no circumstances attempt to perform maintenance on the laser scanner themselves.

Never look into the laser beam, even if you think that the scanner is not active.

Never open the scanner to look inside the device. If you do this, you may expose yourself to a dangerous laser beam.

The use of optical devices with this laser equipment increases the risk of visual impairment.

3 General Information on the Product BPS C5

The BPS C5 is a system for processing banknotes, which offers a variety of functions and application possibilities. Depending on the configuration, the BPS C5 can be used to read the serial number of banknotes, count and sort banknotes and check their authenticity, denomination, value, and fitness. The banknotes are placed unbundled in the singler. After singling, they are checked and evaluated by the sensors. Based on the sensor results, the banknotes are sorted either to the delivery stacker or the reject stacker.

The system is controlled via the operating unit.

This manual describes all the available options. The availability of these options depends on the configuration of the BPS C5.

Machine Variant	Number of Standard Delivery Modules
BPS C5-5	1
BPS C5-9	2
BPS C5-13	3
BPS C5-17	4
BPS C5-21	5
BPS C5-25	6

Important!

The technical data for external devices supplied by G+D is not included in this documentation.

Important Notice for the USA/Canada

The serial number reading options are not available in the USA/ Canada.

4 System Data

The product BPS C5 has the following system data.

4.1 Dimensions and Weights

The BPS C5 has the following dimensions and weights:

	Width [mm]	Height [mm]	Depth [mm]
Input module (IM)	510	660	420
Standard delivery module (SDM)	270	660	420
Fail-safe Module (FSM)	10	660	420

The BPS C5 Variants

The standard variant of the BPS C5 consists of the basis module and the module (standard delivery module) with the fail-safe compartment. The BPS C5 can have up to four additional delivery modules. The BPS C5 variants have the following dimensions and weights:

BPS C5 variant	Number of Delivery Modules	Number of stackers	Width [mm]	Height	Depth	Weight [kg]
BPS C5-5 (standard variant)	1	5+1	790	660	420	74
BPS C5-9	2	9+1	1060	660	420	104
BPS C5-13	3	13+1	1330	660	420	141
BPS C5-17	4	17+1	1600	660	420	178
BPS C5-21	5	21+1	1870	660	420	215
BPS C5-25	6	25+1	2140	660	420	252

Package Dimension

BPS C5 variant	Number of delivery modules	Dimensions (D x W x H) [mm]
BPS C5-5	1	965x550x830
BPS C5-9	2	1 Carton: 965x550x830 1 Carton: 750x400x575
BPS C5-13	3	1 Carton : 965x550x830 2 Cartons: 750x400x575
BPS C5-17	4	1 Carton: 965x550x830 3 Cartons: 750x400x575
BPS C5-21	5	1 Carton: 965x550x830 4 Cartons: 750x400x575
BPS C5-25	6	1 Carton: 965x550x830 5 Cartons: 750x400x575

4.2 Type Label

The BPS C5 has the following type label:

Figure 2: Type Label

You will find the type label on the rear of the BPS C5.

4.3 Electrical Connection and Power Supply

The customer must provide a 3-wire system including neutral conductor and protective earth conductor for the connection (e.g. TN-S network, TT network), and the socket for connecting.

The shockproof socket is used for the connection to the power supply. The BPS C5 is fitted with an inlet connector (IEC 60320-1). A country-specific connection cable for single-phase 230 V alternating current is supplied.

Use a separate socket or correspondingly dimensioned and approved supply units for each machine.

The power connection and the connection lines must comply with the guidelines set by the responsible power supply company.

The following tables show the values for the connection data. There are two ranges for the frequency:

Frequency (Hz)
50/60 ± 10% Hz

Table 1: Mains Frequency

The following table shows the values for the supply voltage:

Supply Voltage (V) Range
100 - 240 V

Table 2: Supply Voltage Ranges

The following table shows the values for the fuse protection:

Fuse Rating (A)
10 A; Time lag, slow blow

Table 3: Fuse Protection

The following tables shows the values for the maximum current consumption:

Maximum Current Consumption (A)
10 A

Table 4: Maximum Current Consumption

The following table shows the values for the electrical power consumption.

Maximum Power Consumption (W)
1000 W

Table 5: Electrical Power Consumption

4.4 System Waste Heat

The electricity consumed by the system is almost entirely converted into heat. The waste heat generated by the system therefore corresponds to the values given for the power consumption.

Built-in fans cool the product down. The fans draw air into the base section of the machine and release the exhaust air into the installation room through the rear panel.

The following table shows the values for system waste heat:

	Values
System waste heat	Max. 1000 W

Table 6: System waste heat

The system waste value does not include heat dissipated by accessories, printer, or bar-code reader.

4.5 Physical Effects (Generated Vibrations)

The shock and vibration values are negligible.

4.6 Electromagnetic Compatibility

The BPS C5 has been checked according to the requirements of Directive 2014/30/EU issued by the Council of the European Union for electromagnetic compatibility (EMC). For proof, see the EU Declaration of Conformity.

CAUTION

This is class A information technology equipment (ITE).

This equipment may cause radio interference in residential areas.

If so, you must take appropriate measures.

The following standards were used:

EN 55032: 2015 +AC:2016	Product standard for multimedia equipment - emission requirements (see also EMC-Test reports)
EN 55024: 2010 +A1:2015	Product standard for information technology equipment - interference immunity factor properties - limit values and testing procedures

Table 7: Standards Applied for Electromagnetic Compatibility

5 Installation Room

The BPS C5 product is designed for installation in buildings.

The temperature and humidity of the surrounding air influence the operation.

5.1 Room Climate

The following environmental conditions are relevant for proper operation:

- Room climate in installation room
- Moisture content of the banknotes to be processed

Room Climate in Installation Room

The installation room must meet the following requirements:

Climate in the installation room	Values
Ambient temperature	+15 °C – +35 °C
Relative humidity below the dew point not permissible	30% – 80% r.h.

Table 8: Values for the Room Climate

For machines with an integrated camera (ticket reader*) or external M-feature detectors, the applicable temperature range is +15 °C - +30 °C.

Moisture Content of the Banknotes to be Processed

Storage of banknotes	Values
Relative humidity	35% – ca. 65% r.h.
Moisture content of the banknotes	4.5 g/kg at 20 °C (water/kg of banknotes)
The storage conditions before processing have a significant influence on the moisture content of the banknotes. The climatic conditions of the installation or banknote processing room only have a slight influence.	

Table 9: Values for the Banknote Humidity and Storage Conditions

Deviations from the above-mentioned values can lead to reduced banknote throughputs. In particular, a lower moisture content of the banknotes can lead to electrostatic effects.

The room climate must also meet the requirements listed when the machine is not in operation, e.g. overnight, on weekends, and on public holidays.

5.2 Lighting

In general, the national specifications for lighting for office workstations must be fulfilled.

You must observe the following points:

- The lighting must be glare-free.
- The same level of brightness must be present throughout the installation room. This is particularly important during servicing and maintenance work.
- Avoid direct sunlight.

5.3 Connections

Take a note of the following information concerning the connections in the installation room:

Electrical Connections

The socket for the power connection must always be installed near to the banknote processing system and easily accessible.

Use a separate socket or correspondingly dimensioned and approved supply unit for each machine.

Additional sockets must be installed on site to connect additional external equipment.

The BPS C5 has the following electrical connections:

- Four USB ports to connect the following external equipments:
  - Printer
  - Mouse
  - Keyboard
  - Barcode reader
- GUI display port
- Ethernet (LAN) interface

  Ensure that you use only shielded LAN cable.
- USB 2.0 A for four USB ports

  Use the USB storage size of maximum 32 GB capacity
- USB 2.0 B for host and connect to PC
- Power socket

At least one additional socket must be installed no further than 3 m from the banknote processing system for service requirements.

This socket must also be easily accessible.

Network Connections

You can connect the BPS C5, → *Section 5.8 “Local Area Network (LAN) ”, p. 26*. An Ethernet network connection must be fitted near to the banknote processing system for this.

5.4 Installation Area

Depending on the BPS C5 variant, you need the following minimum installation area for the installation

BPS C5 variant	Number of delivery modules	Table size (l x w)	Maximum Load Capacity of the Table [kg]
BPS C5-5	1	1600 mm xx 800 mm	148
BPS C5-9	2	1900 mm xx 800 mm	208
BPS C5-13	3	2200 mm xx 800 mm	282
BPS C5-17	4	2500 mm xx 800 mm	356
BPS C5-21	5	2800 mm xx 800 mm	430
BPS C5-25	6	3100 mm xx 800 mm	504

Table 10: Dimensions of the Installation Areas

Important!

If external devices are installed, the amount of space required increases.

You must ensure sufficient space for the delivery and removal of the banknotes as well as providing a storage space for the transport containers.

The table must be designed to carry the weight of the machine and any accessories or additional loads.

5.5 Traffic Area

The BPS C5 product can be set up as a sitting or standing workstation.

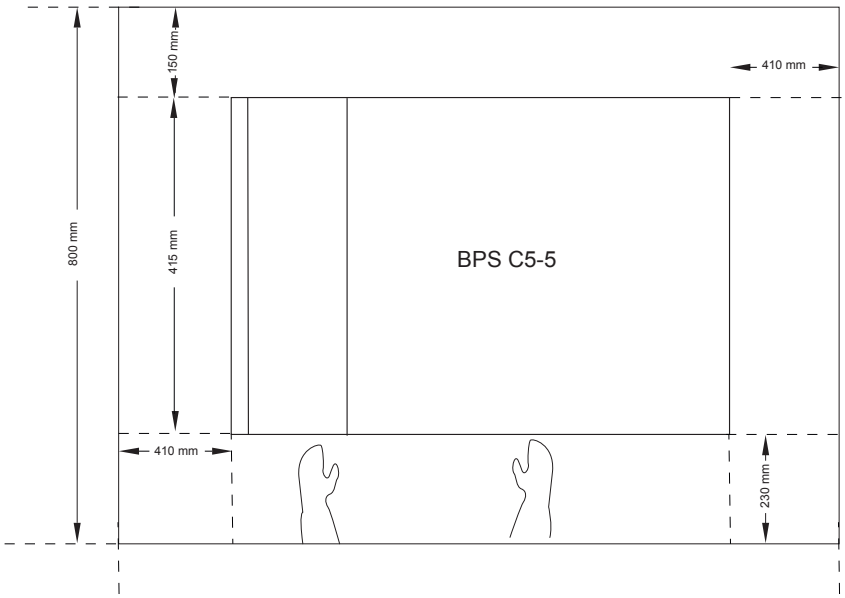

Figure 3: Workstation design

You can use a table with an adjustable height for the installation. For external devices, you must provide corresponding operating areas.

The marked area indicates the recommended operating area for a machine depending on body size and work organization.

You must organize appropriate operating areas for external equipment.

You must ensure that the traffic areas meet national regulations for accessibility to the banknote processing system as well as for the delivery and removal of the banknotes.

WARNING

Poor posture

Poor posture over long periods of time can cause long-term health problems (for example, back problems).

Arrange the workstation to meet your needs.

5.6 Electrostatic Discharge

The floor coverings in the installation rooms must be anti-static to avoid electrostatic discharge (ESD).

The resistance to earth must be less than or equal to 100 MΩ (resistance to earth measured according to DIN EN 1081, procedure B, or resistance to earth measured according to DIN EN DIN EN 61340-4-1).

For further information, please refer to the national regulations. National building and fire protection ordinances must be followed.

For a resistance to earth of more than 100 MΩ, additional measures are recommended for activities, which exceed the operating limits. These measures prevent temporary malfunctions and/or damages due to electrostatic discharge of the operators or service personnel.

Depending on the requirements in the installation rooms (measured resistance to earth, minimum humidity, etc.), additional measures for touching and/or handling electric components (e.g., replacing a component or connecting a cable) may be necessary to ensure availability. These measures can, for example, comprise special training sessions, special precautionary measures or increased supply of spare parts and can therefore increase maintenance costs.

5.7 Magnetic Fields

The product BPS C5 must not be exposed to strong magnetic fields, because external magnetic fields will influence the measuring accuracy of the magnetic sensor.

NOTICE

Monitors, high-voltage cables or high-voltage transformers can cause strong magnetic fields.

Operating the highly sensitive sensors of the BPS C5 product in the vicinity of strong magnetic or electromagnetic fields can cause disruptions of the system processes.

Do not install the BPS C5 product in the vicinity of strong magnetic fields.

NOTICE

Mobile end devices generate magnetic fields when they are switched on.

The BPS C5 product may malfunction during operation.

Maintain a minimum distance of two meters to the product.

5.8 Local Area Network (LAN)

You can link several banknote processing systems together at one installation site via a Local Area Network (LAN; Ethernet 10BASE-T with STP cable; 10, 100, 1000MBit/s). Optional EDP system components can also be connected via the LAN.

The layout of a LAN reflects the local conditions of the installation site, such as:

- Distances between the individual EDP system components,
- spatial separations,
- LAN technology used.

The physical location of the LAN line must take into account all of the planned EDP system components at the installation site. If you do not position all of the banknote processing systems that are to be installed close together in one room, you must design the LAN infrastructure you provide to be state-of-the-art.

The banknote processing systems are equipped by default with an RJ-45 port. On a separate Hub, you can connect EDP components with lengths of up to 100 m each.

The use of additional EDP networks/other network technology is possible after notifying and coordinating with G+D.

6 Installation

The following must be observed during the installation.

6.1 Delivery

The product BPS C5 is delivered in an outer carton, protected from environmental influences, on a pallet.

The unloading area on site must be dry and protected from the elements. Unimpeded access to the unloading point must be guaranteed. Otherwise, you must make arrangements for re-loading.

6.2 Transport

You must check the transport route, from the unloading location to the installation room well before delivery.

If the installation room is not at the same level as the unloading site, stairs and elevators must be included in the inspection.

The BPS C5 must be kept vertically when transported.

WARNING

Incorrectly transporting heavy equipment

may result in personal injury, damage to property and to a loss of warranty.

When transporting the machine, follow the legal regulations on transporting heavy equipment.

- Use appropriate lifting and transport equipment.
- Use personal protective equipment.
  - Safety shoes
  - Gloves
  - Protective goggles

6.2.1 Transport Outside of Buildings

When transporting the product BPS C5 outside of buildings you must transport it in the original packaging or equivalent.

6.2.2 Transport Inside Buildings

You can transport the product BPS C5 inside buildings without special packaging.

6.3 Setup

The instructions for unpacking can be found on the tag of the accessory pack → *"BPS C5 Transport Instructions"* on the packaging.

Important!

There must be suitable lifting equipment for the setup and installation!

Pay particular attention to the following information during the setup:

- All cable connections must be accessible, in particular the power switches and power plugs at the back of the machine.
- For service purposes, access to the rear panel of the machine must be guaranteed. When there is a lack of space, you must position the machine on an adjustable table.
- Make sure the machine is on a level table top. No foreign objects, such as pens, screwdrivers or similar objects, may be placed under the machine.

7 Disposal

You must properly dispose of the transport packaging and the product BPS C5 after discontinuation of use according to the commonly applicable legal requirements.

A Technical Data

	Values
Maximum transport speed	1,050 BNs/min for counting, authenticity detection, fitness sorting, serial number reading You can also set two different speed levels: ● High (1050 BNs/min) ● Low (720 BNs/min)
Singler capacity	up to 1500 BNs depending on the banknote quality
Stacker capacity	up to 250 BN each
Banknote formats handled	Length: 100 - 181 mm Width: 60 - 85 mm Thickness: Approx 50 - 130 micro meter
Relative humidity of the processed banknotes	35% to 65% r.h.
Moisture content of the banknotes	4.5 g/kg at 20 ℃ (water/kg per banknote
Number of adaptations	Up to 10 adaptations
Display	7" LCD display for GUI 3-digit, 7-segment LED display for standard stacker
Power supply connection	Fully molded mains lead plug to IEC Socket C14 Rated: 100/240 V
Frequency	50/60 Hz
Electrical power consumption	1000 W (max for 25 stacker system)
Fuse protection	10 A
Maximum current consumption	10 A
System heat waste	1000 W (max for 25 stacker system

	Values
Dimensions (depth x width x height)	• BPS C5-5: 420 x 790 x 660 mm • BPS C5-9: 420 x 1060 x 660 mm • BPS C5-13: 420 x 1330 x 660 mm • BPS C5-17: 420 x 1600 x 660 mm • BPS C5-21: 420 x 1870 x 660 mm • BPS C5-25: 420 x 2140 x 660 mm
Weight	• BPS C5-5: 74 kg • BPS C5-9: 104 kg • BPS C5-13: 141 kg • BPS C5-17: 178 kg • BPS C5-13: 215 kg • BPS C5-13: 252 kg
Relative humidity of installation area	30% to 80% r.h.
Ambient temperature of installation area	+15 ℃ to +35 ℃
Transport system	Friction roller
External devices (optional)	• Printer • Barcode reader • Mouse • Keyboard
Sensors	PIS sensor MTS sensor MAG sensor UV sensor
Maximum permitted temperature range for storage	-10 ℃ to +60 ℃
Optimum temperature range for storage	15 ℃ to +35 ℃

	Values
Permissible humidity for storage	30% to 80% RH (non-condensing

Table 11: Technical Data

B Technical Support

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Glossary

A	
A	ampere (physical unit of current)
B	
BN	banknote
C	
CD	compact disk digital storage medium
D	
DIN	German institute for standardization
DVD	digital versatile disk digital storage medium
E	
EDP	electronic data processing
EMC	electromagnetic compatibility capability of electronic components working proper in an electronic environment
EN	European standard
EU	European Union (since December 1, 2009)
F	
FDP	fast deposit processing fast processing of deposit with predefined values
G	
GUI	graphical user interface
H	
Hub	hub in telecommunications - a device connecting physical nodes on the network with one another
Hz	hertz (physical unit of frequency)

I

IEC	International Electrotechnical Commission

L

LAN	local area network computer network limited to a company or campus site
LED	light emitting diode

P

PC	personal computer

T

TN-S network	terra neutralum separatum network; way of realizing a low-voltage network for electrical power supply in electrical engineering
TT network	terre terre network; a way of realizing a low-voltage network for electrical power supply in electrical engineering, with separate PE conductor.

U

USB	universal serial bus

V

V	volt (physical unit of electrical potential)

W

W	watt (physical unit of power)

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Site and Facility Requirements

BPS C5 English 08/2019

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