

Numeron[®]

The system solution – compact, fast, reliable



Giesecke & Devrient



Numeron – a new dimension in currency automation

Giesecke & Devrient (G&D), the world's leading supplier of currency automation product and system solutions, specializes in developing high-grade products for a wide spectrum of customer requirements.

G&D supplies all the necessary components for secure and efficient cash processing. Our offering ranges from consulting to high-performance currency automation systems, cash management software, and services.

The Numeron System

Owing to its compact dimensions, the Numeron might be taken at first glance for a simple banknote counter, but it is much more than that. The Numeron is a complete banknote processing system that includes a CashRay® 180 high-tech sensor and person-machine interface (PMI).

When it comes to the processing of banknotes, the essential requirements and priorities are as follows:

- Authentication
- Denomination identification
- Denomination and fitness sorting

Furthermore, users such as those listed below have a vested interest in improving and increasing their cash handling productivity.

- Central banks
- Commercial bank
- Security transport companies
- Casinos
- Retailers
- Vending machine operators

The Numeron was designed and developed with these customer requirements in mind. It offers all the features of a full-size system in a highly economical, compact, and easy-to-use system.

Numeron D – deposit authentication and sorting

- Optimum support for cash handling processes
 - Mixed deposits: simultaneous authentication and sorting of different currencies, denominations, and series
 - High transport speed
 - High throughput, continuous operation
 - Rejection of suspected counterfeits as well as damaged or unusable banknotes
 - Basic fitness sorting
 - Quick reconciliation on several machines at the same time



Patented opening concept



- **CashRay® 180 sensor**
 - Double-sided, full-face authentication
 - Currently the best authentication of any machine in its class
- **Dependability and durability**
 - High performance
 - Heavy duty
 - Extremely durable
- **Easy to use**
 - External person-machine interface (PMI)
 - Language-independent: operating instructions provided using symbols
 - Cabinet designed to allow easy maintenance and jam recovery
- **Adaptability**
 - Stand-alone or network solution
 - Easy software updating
 - Currency adaptation(s)

Numeron T – tape detection

Banks and many other cash processing organizations take banknotes out of circulation that have been “repaired” using adhesive tape.

Such notes can cause machines, such as ATMs, to jam.

- Numeron T incorporates all features of the Numeron D
- Numeron T sorts out taped banknotes

Numeron F – decentralized fitness sorting

Cash handlers of all kinds are becoming increasingly aware of the costs of currency processing. After all, the volume of cash in circulation is continuing to expand worldwide.

Customer demands for quality and the technical requirements of automated withdrawal mean that local fitness inspection must meet ever higher standards.

Numeron F, incorporating all the features of the Numeron D and Numeron T, brings a new dimension to banknote fitness sorting.

The Numeron F's added soil sensor measures the extent of soiling on each banknote. This high-resolution device provides an added advantage in detecting defective notes. Depending on your needs, each banknote can be sorted according to three possible levels of fitness: ATM, FIT, and UNFIT. At the same time, each note is examined for authenticity and its value registered.

The Numeron F is ideal for use in back offices as well as in cash centers. Whenever a country's central bank permits decentralized fitness sorting, the cash cycle can be shortened considerably: Reusable currency goes straight back into circulation.

Examples:

- ATM: ATM fit banknotes can be used to restock automatic teller machines
- FIT: Fit banknotes can be used to stock cash registers





Numeron DU / Numeron TU – optimum US dollar authentication

In many countries, the United States dollar is used alongside the national currency to make cash payments. Because of the low number of machine-readable authenticity features, current sensor systems can only perform accurate authentication on the basis of regular sensor updates.

G&D has now developed a completely new sensor technology for reliably accurate authentication of US dollars. The Numeron DU / TU is also equipped with all the features of Numeron D and Numeron T.

Sensor Functions

	Image/IR	Magnetic	UV	USD	Tape	Soil/Defects
Numeron D	X	X	X	–	–	○
Numeron DU	X	X	X	X	–	○
Numeron T	X	X	X	–	X	○
Numeron TU	X	X	X	X	X	○
Numeron F	X	X	X	–	X	X

X = Standard equipment
○ = Basic functionality with image sensor
– = Not available

Software – the brains behind the Numeron

The Numeron can be easily integrated into existing cash management software systems such as Compass^{CM} from G&D.

NCS, (Numeron Configuration Software), is a Windows®-based tool that enables the users to configure, organize, and manage one or more Numeron units from a PC.

Options and Accessories

- LAN interface*
- Serial interface*
- Single currency adaptation* (regional currencies)
- Adaption for 2 currencies
- Adaption for 3 currencies
- PMI printer*
- Multiple language options for printouts
- Microdrive™ update-kit
- Numeron Configuration Software (NCS)
- CompassEntrée^{CM}
- Barcode reader
- Display connecting port*

* Standard component

Technical Data

Deposit capacity (approximate)
400–500 BN,
depending on quality

Stackers
3 stackers
(2 + 1 reject compartment)

Stacker capacity (approximate)
Poor quality: 100 BN
ATM fit: 200 BN
Reject: 100 BN

BN sizes accepted
Length: 100–185 mm
Width: 50–95 mm

Dimensions (H/W/D)
Approx. 51 x 36 x 45 cm

Number of currencies
Up to 3 different currencies
(max. 32 denominations)

Transport speed (approximate)
20 BN/s (1,200 BN/min.)
10 BN/s (600 BN/min.) in fitness mode

Weight (approximate)
31 kg

Power supply
100–250 V, 50/60 Hz

Power consumption
Approx. 210 VA

Ambient temperature
15–35°C

Relative humidity
30–80%, non-condensing

Approvals
CE, GS, BG, CCC

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