

DATASHEET

Entrust Datacard DS4-ES1 Instant Issuance System With Embosser

HIGHLIGHTS

DS4: The Next Generation of Instant Card Issuance

Entrust® Datacard® (formerly Sigma) Instant Issuance Systems are specifically designed for today's cloud environments and give you the ability to easily issue the most secure financial cards in the world.

- **Simple:** From unboxing to issuing cards to managing your printer, we made sure Datacard was the most user-friendly card issuance solution in the world
- **Secure:** Our industry-leading issuance security architecture will keep your cards and your customers' data safe and secure at each step of the issuance process
- **Smart:** Forward-thinking technology and scalability allow you to expand your card issuance program as your needs evolve

KEY FEATURES & BENEFITS

The World's Most User-Friendly Financial Card Printer

- Intuitive printer dashboard lets you see printer status, order supplies, check cleaning status, update firmware, or contact help – all from your mobile device
- Seamless self-service lets you access how-to videos and other helpful resources by simply scanning a QR code on the LCD display
- Variable LED light ring lets you incorporate brand colors or other customization into your ambient environment
- Pre-loaded ribbon cassettes make switching ribbons easy
- Optional multi-hopper enables multiple card designs from a single printer
- Removable card cassettes make securing cardstock overnight a breeze



Single-hopper
with embosser



Unmatched Security

- Dual-control access with security locks protects cardstock, supplies, and rejected cards, meeting Visa and Mastercard security requirements
- Cardstock is easily removable for secure overnight storage
- Secure Boot cryptographically authenticates firmware, preventing printer operation if unauthorized modifications are detected
- Trusted Platform Module (TPM) secures a factory-installed Entrust-backed TLS certificate
- Network communication in accordance with NIST SP 800-52 Rev. 2 recommendations when using TLS 1.2 or 1.3 with strong cryptographic protocols*
- Zero Trust network support using RADIUS-enabled IEEE 802.1x password or certificate-based authentication*

* These security features require a properly configured printer with D4.3.2 or newer firmware.

Flexible, Scalable, and Easily Integrated Into Your IT Environment

- Issuance capabilities include:
 - Full-color or monochrome direct-to-card printing
 - Magnetic stripe encoding
 - Contact or contactless smart card encoding
- Choose on-premises or cloud-hosted deployment
- Embossed text with metallic tipping foil for an elegant look
- Add multi-hopper for multiple pre-designed card feeding
- A full suite of services is available to help ensure your instant issuance program runs smoothly at every one of your branches



Entrust Datacard DS4-ES1 Instant Issuance System With Embosser

TECHNICAL SPECIFICATIONS

Standard Features	Supplies
Print technology	Dye sublimation / resin thermal transfer
Print capabilities	Single- or dual-sided edge-to-edge, full-color, and monochrome printing
Print resolution	- Standard mode: 300 dots per inch (dpi) (300 X 600, 300 X 1200) standard text, bar code, and graphics printing - TrueMatch™ printing technology. Ability to conform to ICC color workflow
Print speed	- Single-sided color ribbon (YMCKT): up to 250 cards per hour (cph) - Double-sided color ribbon (YMCKT-KT): up to 180 cards per hour (cph) - Double-sided monochrome ribbon (black HQ): up to 500 cards per hour (cph) 60 seconds to encode mag stripe, indent, emboss, and top the card 64 seconds to print monochrome graphics, encode mag stripe, indent, emboss, and top the card 78 seconds to print color graphics, encode mag stripe, indent, emboss, and top the card
Card capacity	Input hopper: 125 cards (based on 0.03 in. card thickness) Output hopper: 25 cards Reject holding tray: 10 cards Front exception card slot
Card types supported	Thickness: 0.010 inches to 0.040 inches (0.25mm - 1.016mm) Dimension: ID-1, CR-79 PVC, rPVC, PETG, and rPETG cards are supported. Other card types recommend prior testing.
Embossing/Indenting	75-character embossing/indenting wheel, financial format per ID-1 ISO 7811-3 - Single- or dual-sided - Mastercard security characters Helvetica® characters OCR-A1, OCR-B1
Operating environment	Temperature: 60°F to 95°F (15°C to 35°C) Humidity: 20%-80% RH – non condensing
Magnetic stripe encoding	ISO 7811 three-track support (high- and low-coercivity) JIS Type II single-track option
Smart card personalization	- Contact and contactless smart card encoding for ISO 14443 A/B, ISO 15693, MIFARE®, MIFARE PLUS, MIFARE DESFire EV1/EV2/EV3* - Single-wire connectivity Supports production of EMV® level-1 compliant card *Compatibility with specific features of new card technologies should always be confirmed.
Security features	Device: - Trusted Platform Module - TPM - Secure Boot - Signed Firmware Images Data: - TLS 1.2 and 1.3 (supports AES-256) Network: - IEEE 802.1x network authentication - RADIUS-based authentication - WPA2 enterprise network support Physical: - Secure Ribbon Scramble (optional) - Software-activated lock to secure cardstock, supplies, and reject card hopper - Bolt-down ready - Secure cable lock (sold separately) - Concealed output hopper - Non-resettable card counter for auditing General: - Regular Security Patches
Secure ribbon scramble	Allows users to specify the card fields that are to be securely printed, making defined personal data difficult to read from the used ribbon supply - Software needed: IFI on-prem 6.10 or higher and IFIaaS 8.4 or higher - Available for UV monochrome ribbons (excluding cassette types) and standard black and white ribbons - Recommended only for personalization fields; not recommended for non-personalization information
LCD display languages	English, Spanish, German, Italian, and Japanese

Entrust Datacard DS4-ES1 Instant Issuance System With Embosser

TECHNICAL SPECIFICATIONS

Optional Features	Supplies												
Physical dimensions	• Printer: L 17.4 in. x W 8.9 in. x H 9.0 in. / 44.2 cm x 22.6 cm x 22.9 cm • Printer with optional multi-hopper: 23 in. x 13.4 in. x 16.2 in. (58.4 cm x 34 cm x 41.1 cm) • Bottom module (indenting, embossing, topping, card output): 15 in. x 27.5 in. x 10.5 in. (38.1 cm x 69.9 cm x 36.8 cm)												
Weight	Printer: 12.1 lbs (5.49 kg) Printer with multi-hopper: 30.9 lbs (14.02 kg)												
Connectivity	Ethernet, Wifi USB options (Driver Only): Direct USB, USB over Ethernet												
Driver operating system support	• Windows 11 • Windows 10, 32- and 64-bit • Windows Server 2022 • Windows Server 2019 • Linux Ubuntu 20.04 LTS • Linux Kylin 10												
Warranties	36 months												
Multi-hopper	Six-compartment hopper, 125-card capacity each (750 cards total)												
Color ribbons	<table><tr><td>YMCKT</td><td>500 images refill roll and prefilled cassette</td></tr><tr><td>YMCKT-KT</td><td>350 images refill roll and prefilled cassette</td></tr><tr><td>KTT</td><td>750 images refill roll and prefilled cassette</td></tr><tr><td>ST-KT</td><td>500 images refill roll and prefilled cassette</td></tr><tr><td>WTT</td><td>650 images refill roll and prefilled cassette</td></tr><tr><td>KT</td><td>1000 image refill roll</td></tr></table>	YMCKT	500 images refill roll and prefilled cassette	YMCKT-KT	350 images refill roll and prefilled cassette	KTT	750 images refill roll and prefilled cassette	ST-KT	500 images refill roll and prefilled cassette	WTT	650 images refill roll and prefilled cassette	KT	1000 image refill roll
YMCKT	500 images refill roll and prefilled cassette												
YMCKT-KT	350 images refill roll and prefilled cassette												
KTT	750 images refill roll and prefilled cassette												
ST-KT	500 images refill roll and prefilled cassette												
WTT	650 images refill roll and prefilled cassette												
KT	1000 image refill roll												
Embosser supplies	Topping foils: Silver Metallic, Gold Metallic, Black Gloss, White Gloss (all at 500 card yield) Indent Ribbons: Black Indent Ribbon Up to 2100 yield. White Indent Ribbon Up to 1800 yield. Note: Indent ribbon yield stated is estimated for printing 3 characters per card. Yields may vary due to font size.												

Color ribbon guide: Y=Yellow, M=Magenta, C=Cyan, K=Black, T=Topcoat, S=Silver matte, For more supplies information, refer to DS4 Supplies Datasheet.



Multi-hopper
with embosser