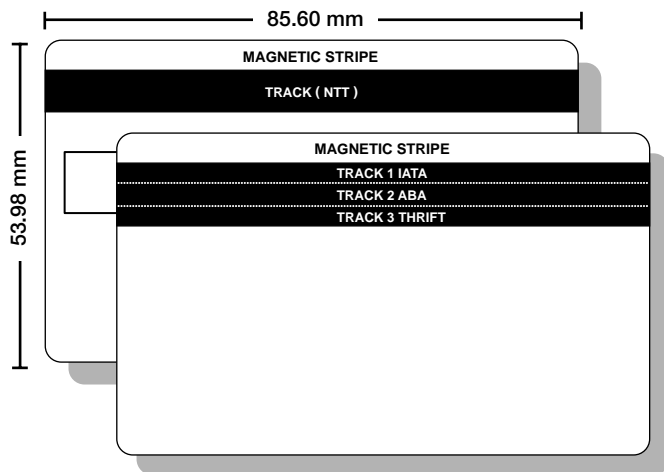


Card Reader Product Catalogue



Magnetic Stripe Data Format

Card Face



According to ISO7810, ISO7811, JIS X6301, X6302 Standards

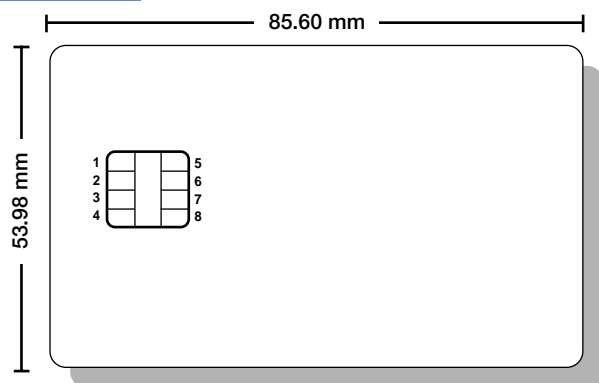
| Type | Track | bpi | bits/character | Number of Characters |
|-----------|------------------|-----|----------------|----------------------|
| ISO/JIS-I | TRACK 1 (IATA) | 210 | 7 | 79 Alpha-Numeric |
| | TRACK 2 (ABA) | 75 | 5 | 40 Numeric |
| | TRACK 3 (THRIFT) | 210 | 5 | 107 Numeric |
| JIS-II | TRACK (NTT) | 210 | 8 | 72 Alpha-Numeric |

Card thickness : 0.76mm

Card Reverse

Smart Card Pad Layout

Card Face



According to ISO7816 (middle position) Standards

| Pad Number | Terminal Symbol | Abbreviation | Function |
|------------|-----------------|--------------|------------------------|
| 1 | C1 | VCC | Supply Voltage |
| 2 | C2 | RST | Reset Signal |
| 3 | C3 | CLK | Clock Signal |
| 4 | C4 | RFU | Unused at Present Time |
| 5 | C5 | GND | Ground |
| 6 | C6 | VPP | Programmig Voltage |
| 7 | C7 | I/O | Data Input/Output |
| 8 | C8 | RFU | Unused at Present Time |

Card thickness : 0.76mm

Product Line-up

Manual Type (Swipe)

V3A Series
V3B Series
V3TU Series
3S4YR-HNFR Series
3S4YR-HNFR-002 Series

Manual Type (Insertion)

3S4YR-SGR Series
3S4YR-SBR-N Series

Motor Driven Type (with TTL interface)

3S4YR-MBR/MCR Series
3S4YR-MMW/MZW Series
3S4YR-MKW Series

Motor Driven Type (with RS232 interface)

V2AF Series
V2BF Series

Motor Driven Type (with RS232 interface, high-end)

3S4YR-MVF Series
3S4YR-MVS Series
3S6D Series

Manual Type (Swipe)

V3A Series



Low cost, compact, manual swipe reader

- Low power C-MOS Technology
- TTL - compatible interface (clock & data)
- Available with or without cover

- Length is 90 mm.
- Cable Harness is optional.

V3B Series



- Length is 100 mm.
- Cable Harness is included.

V3TU Series



Compact magnetic swipe card reader with USB interface

- Connects to the PC via USB cable.
- Windows98/2000 device driver prepared.
- Software-selectable keyboard emulation or program modes
- Easy recognition with LED display

3S4YR-HNFR Series



Unidirectional RS232 interface magnetic card reader

- Connects to the PC RS232C port just like any other peripheral.
- No external power supply required.

- Protocol allows data to be transmitted immediately after a card has been swiped through the reader.

3S4YR-HNFR-002 Series



Bidirectional RS232 interface magnetic card reader

- Protocol is command-response type and controllable by the host.
- Intelligent card reader with automatic parity check function of magnetic data

Major Applications

- POS/PIN-PAD Terminals
- Access Control
- ID Card Checkers
- Cash Dispenser
- Information and Payment Kiosks
- Vending Machines

Basic Specification

| Type Name | Magnetic Stripe | | | | Cover | Cable | Interface | Color | Power | Dimensions (mm) | Note |
|-----------------|-----------------|-------|-------|--------|-------|-------|-----------|-------------|---------------|-------------------|--|
| | ISO 1 | ISO 2 | ISO 3 | JIS II | | | | | | W x D x H | |
| V3A-1 | R | R | R | | — | — | TTL | Ivory White | 5VDC+/-10% | 90 x 24 x 24 | |
| V3A-4 | | R | | | — | — | TTL | Ivory White | 5VDC+/-10% | 90 x 24 x 24 | |
| V3A-4K | | R | | | Yes | — | TTL | Ivory White | 5VDC+/-10% | 90 x 28 x 26.5 | |
| V3A-6 | R | R | | | — | — | TTL | Ivory White | 5VDC+/-10% | 90 x 24 x 24 | |
| V3A-7 | | R | R | | — | — | TTL | Ivory White | 5VDC+/-10% | 90 x 24 x 24 | |
| V3A-F | R | R | | R | — | — | TTL | Ivory White | 5VDC+/-10% | 90 x 24 x 24 | |
| V3B-4 | | R | | | — | Yes | TTL | Black | 5VDC+/-10% | 100 x 32.5 x 32 | |
| V3B-4K | | R | | | Yes | Yes | TTL | Black | 5VDC+/-10% | 100 x 32.5 x 32 | |
| 3S4YR-HNFR1 | R | R | R | | Yes | Yes | RS232 | Ivory white | RS232 port | 38.6 x 100 x 35.2 | |
| 3S4YR-HNFR4 | | R | | | Yes | Yes | RS232 | Ivory white | RS232 port | 38.6 x 100 x 35.2 | |
| 3S4YR-HNFR1-002 | R | R | R | | Yes | Yes | RS232 | Ivory white | Keyboard port | 38.6 x 100 x 35.2 | |
| 3S4YR-HNFR4-002 | | R | | | Yes | Yes | RS232 | Ivory white | Keyboard port | 38.6 x 100 x 35.2 | |
| V3TU-1K | R | R | R | | Yes | Yes | USB1.0 | White | USB port | 58.3 x 120 x 39.5 | with driver (CD ROM provided separately) |
| V3TU-FK | R | R | | R | Yes | Yes | USB1.0 | White | USB port | 58.3 x 120 x 39.5 | |

R : Read only R/W : Read/Write

Manual Type (Insertion)

3S4YR-SGR Series



Compact size IC or magnetic card reader

- Compact, light, and robust
- Long life with landing IC contact
- Mechanical lock and solenoid controlled IC card release mechanism

3S4YR-SBR-N Series



Compact, highly reliable insert reader. Reads approx 60% of magnetic track.

- Effective stripe length of 46.6 mm max.
- Slim package and simple structure
- Lower current consumption with stand-by mode

Major Applications

- POS Terminals
- Hotel Lock System
- Access Control
- Game Machines
- Copy Machines
- Information and Payment Kiosks
- Vending Machines

Basic Specification

| Type Name | Magnetic Stripe | | | | IC Card | Interface | Power | Dimensions (mm) | Note |
|----------------|-----------------|-------|-------|--------|---------|-----------|------------|-----------------|-----------------------------|
| | ISO 1 | ISO 2 | ISO 3 | JIS II | | | | W x D x H | |
| 3S4YR-SGR0J | | | | | R/W | TTL | 5VDC+/-5% | 76 x 126 x 25 | IC contact signal only |
| 3S4YR-SGR1N | R | R | R | | | TTL | 5VDC+/-5% | 76 x 126 x 30 | |
| 3S4YR-SBR3N-50 | R | | | | | TTL | 5VDC+/-10% | 60 x 87 x 21.5 | Counter Connector attached. |
| 3S4YR-SBR4N-20 | | R | | | | TTL | 5VDC+/-10% | 60 x 78 x 21.5 | |
| 3S4YR-SBR4N-50 | | R | | | | TTL | 5VDC+/-10% | 60 x 87 x 21.5 | Counter Connector attached. |
| 3S4YR-SBR5N-20 | | | R | | | TTL | 5VDC+/-10% | 60 x 78 x 21.5 | |

R : Read only R/W : Read/Write

Motor Driven Type (with TTL interface)

3S4YR-MBR/MCR Series



MBR : Magnetic card only

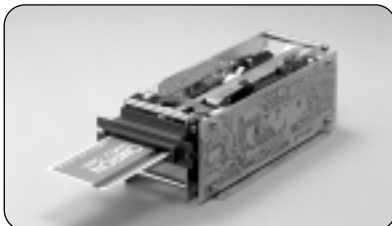


MCR : IC card only

Compact and short size motor-driven magnetic card reader or IC card reader/writer

- Compact size and light weight
- High speed card transport (400mm/s)
- Heavy duty shutter available to prevent insertion of foreign objects and improper cards

3S4YR-MMW/MZW Series

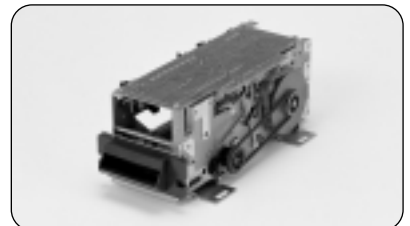


Compact size and light weight

- Installation in any terminal
- Simple shutter for dust protection equipped
- User-selectable bit recording density (75/105/150/210 bpi)
- Center stripe version available (MZW)

(Note : This series is applicable for closed system)

3S4YR-MKW Series



Versatile hybrid reader/writer handles both magnetic and IC cards

- High reliability and high performance, suitable for ATM/encoder application
- Strong card transportation ability with durable 4-wheel, belt drive with roller
- Accurate encoding with card guide mechanism

Major Applications

- ATM/Cash Dispenser
- Vending Machines
- Information and Payment Kiosks
- Parking System
- Access Control

Basic Specification

| Type Name | Magnetic Stripe | | | | IC Card | Shutter | Interface | Power | Dimensions (mm) | Note |
|------------------|-------------------------|-------|-------|--------|---------|-----------------|-----------|-------------|-----------------|-----------------|
| | ISO 1 | ISO 2 | ISO 3 | JIS II | | | | | W x D x H | |
| 3S4YR-MMW1 | R/W | R/W | R/W | | | Dust Protection | TTL | 24VDC+/-10% | 94 x 211 x 90 | |
| 3S4YR-MMW2-262 | | | | R/W | | Dust Protection | TTL | 24VDC+/-10% | 90 x 211 x 65 | |
| 3S4YR-MMW4 | | R/W | | | | Dust Protection | TTL | 24VDC+/-10% | 90 x 211 x 65 | |
| 3S4YR-MZW9T | Center Stripe (Non-ISO) | | | | R/W | Dust Protection | TTL | 24VDC+/-10% | 90 x 211 x 65 | Thin card |
| 3S4YR-MBR1 | R | R | R | | | Option | TTL | 24VDC+/-10% | 90 x 122 x 62 | |
| 3S4YR-MBR1D | R | R | R | | | Blade | TTL | 24VDC+/-10% | 90 x 147 x 62 | |
| 3S4YR-MCR0JCB | | | | | R/W | Option | TTL | 24VDC+/-10% | 90 x 122 x 95 | |
| 3S4YR-MCR0JDB | | | | | R/W | Blade | TTL | 24VDC+/-10% | 105 x 147 x 95 | |
| 3S4YR-MKW1PC-01 | R/W | R/W | R/W | | Option | Option | TTL | 24VDC+/-10% | 98 x 222 x 92 | |
| 3S4YR-MKW4PC-01 | | R/W | | | Option | Option | TTL | 24VDC+/-10% | 98 x 222 x 92 | |
| 3S4YR-MKW1PCH | R/W | R/W | R/W | | Option | Option | TTL | 24VDC+/-10% | 106 x 247 x 92 | Write HICO Card |
| 3S4YR-MKWAPC-100 | R/W | R/W | R/W | R/W | | | TTL | 24VDC+/-10% | 98 x 200 x 85.5 | Encoder Spec. |

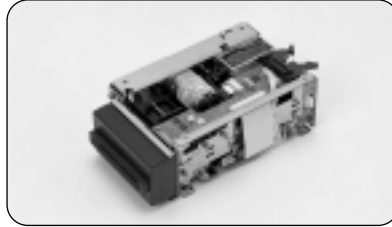
R : Read only R/W : Read/Write

Motor Driven Type (with RS232 interface)

V2AF Series



V2BF Series



Major Applications

- Information and Payment Kiosks
- Electronic Purse
- Vending Machines
- Royalty Card Terminal

Compact hybrid reader handles both magnetic and IC cards

- Reads magnetic stripe, and Reads/writes both smart and memory cards (V2AF : EMV3.1.1 Approved, V2BF : EMV4.0 to be approved)
- Single-port RS232C interface with user friendly command protocol for easy integration
- Downloadable firmware specification updates, firmware updates, and new smart cards support without exchanging hardware
- Highly compact motorized reader
- Pin shutter prevents another card insertion.
- Highly compact motorized reader with rear ejection function and mechanical shutter

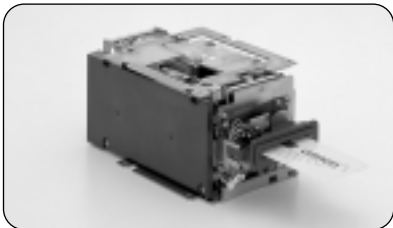
Basic Specification

| Type Name | Magnetic Stripe | | | | IC Card | Memory Card (SLE4418/28/32/42) | Shutter | Interface | Power | Dimensions (mm) | Note |
|-----------|-----------------|-------|-------|--------|---------|-----------------------------------|------------|-----------|-------------|-----------------|------|
| | ISO 1 | ISO 2 | ISO 3 | JIS II | | | | | | W x D x H | |
| V2AF-01JP | R | R | | | R/W | R/W | Pin | RS232 | 12VDC+/-10% | 70 x 145 x 36 | |
| V2AF-02 | | | | R | | | | RS232 | 12VDC+/-10% | 70 x 145 x 36 | |
| V2AF-04JP | | R | | | R/W | R/W | Pin | RS232 | 12VDC+/-10% | 70 x 145 x 36 | |
| V2AF-0F | R | R | | R | | | | RS232 | 12VDC+/-10% | 70 x 145 x 36 | |
| V2AF-0FJP | R | R | | R | R/W | R/W | Pin | RS232 | 12VDC+/-10% | 70 x 145 x 36 | |
| V2BF-01JS | R | R | R | | R/W | R/W | Mechanical | RS232 | 12VDC+/-10% | 89 x 143 x 48 | |
| V2BF-04JS | | R | | | R/W | R/W | Mechanical | RS232 | 12VDC+/-10% | 89 x 143 x 48 | |
| V2BF-0FJS | R | R | | R | R/W | R/W | Mechanical | RS232 | 12VDC+/-10% | 89 x 143 x 48 | |

R : Read only R / W : Read/Write

Motor Driven Type (with RS232 interface, high-end)

3S4YR-MVF Series



3S4YR-MVS Series



3S6D Series



Reliably handles read/write functions for both magnetic and IC cards

- Strong transportation ability with roller transportation method
- User-friendly interface with multifunction of mag/IC card by single port (EMV3.1.1 Approved)
- Downloadable firmware specification updates, firmware updates, and new smart cards support without exchanging hardware
- Heavy duty shutter available to prevent insertion of foreign objects and improper cards
- Built-in 100 to 240VAC power supply, 4 LEDs indicate various power and software-controlled status conditions

Card stacker and feeder based on MVF

- Available for various application to use multiple cards
(Pool unit can handle 2 cards)
- Single-port RS232 interface for both card reader and other units
- Cartridge method with cassette (100 pcs.)

Major Applications

- ATM/Cash Dispenser
- Information and Payment Kiosks
- Electronic Purse
- Vending Machines
- Hotel System

Basic Specification

| Type Name | Magnetic Stripe | | | | IC Card | Shutter | Interface | Power | Dimensions (mm) | Note |
|--------------------|-----------------|-------|-------|--------|---------|---------|-----------|---------------|-----------------|------------------------|
| | ISO 1 | ISO 2 | ISO 3 | JIS II | | | | | W x D x H | |
| 3S4YR-MVFW1JD-051 | R/W | R/W | R/W | | R/W | Blade | RS232 | 24VDC+/-10% | 124 x 210 x 90 | |
| 3S4YR-MVFW1JDH-074 | R/W | R/W | R/W | | R/W | Blade | RS232 | 24VDC+/-10% | 124 x 210 x 90 | Write HICO card |
| 3S4YR-MVFW1JD-081 | R/W | R/W | R/W | | R/W | Blade | RS232 | 24VDC+/-10% | 124 x 210 x 90 | 1 SAM board equipped. |
| 3S4YR-MVFWAJD-073 | R/W | R/W | R/W | R/W | R/W | Blade | RS232 | 24VDC+/-10% | 124 x 210 x 90 | |
| 3S4YR-MVFWAJC-N73 | R/W | R/W | R/W | R/W | R/W | — | RS232 | 24VDC+/-10% | 124 x 210 x 90 | |
| 3S4YR-MVS1JD | R/W | R/W | R/W | | R/W | Blade | RS232 | 100 to 240VAC | 130 x 271 x 154 | |
| 3S4YR-MVSAJD-002 | R/W | R/W | R/W | R/W | R/W | Blade | RS232 | 100 to 240VAC | 130 x 271 x 154 | |
| 3S6D-VPS100 | R/W | R/W | R/W | | R/W | Blade | RS232 | 24VDC+/-10% | 126 x 434 x 260 | * Reference spec. data |

R : Read only R / W : Read/Write

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