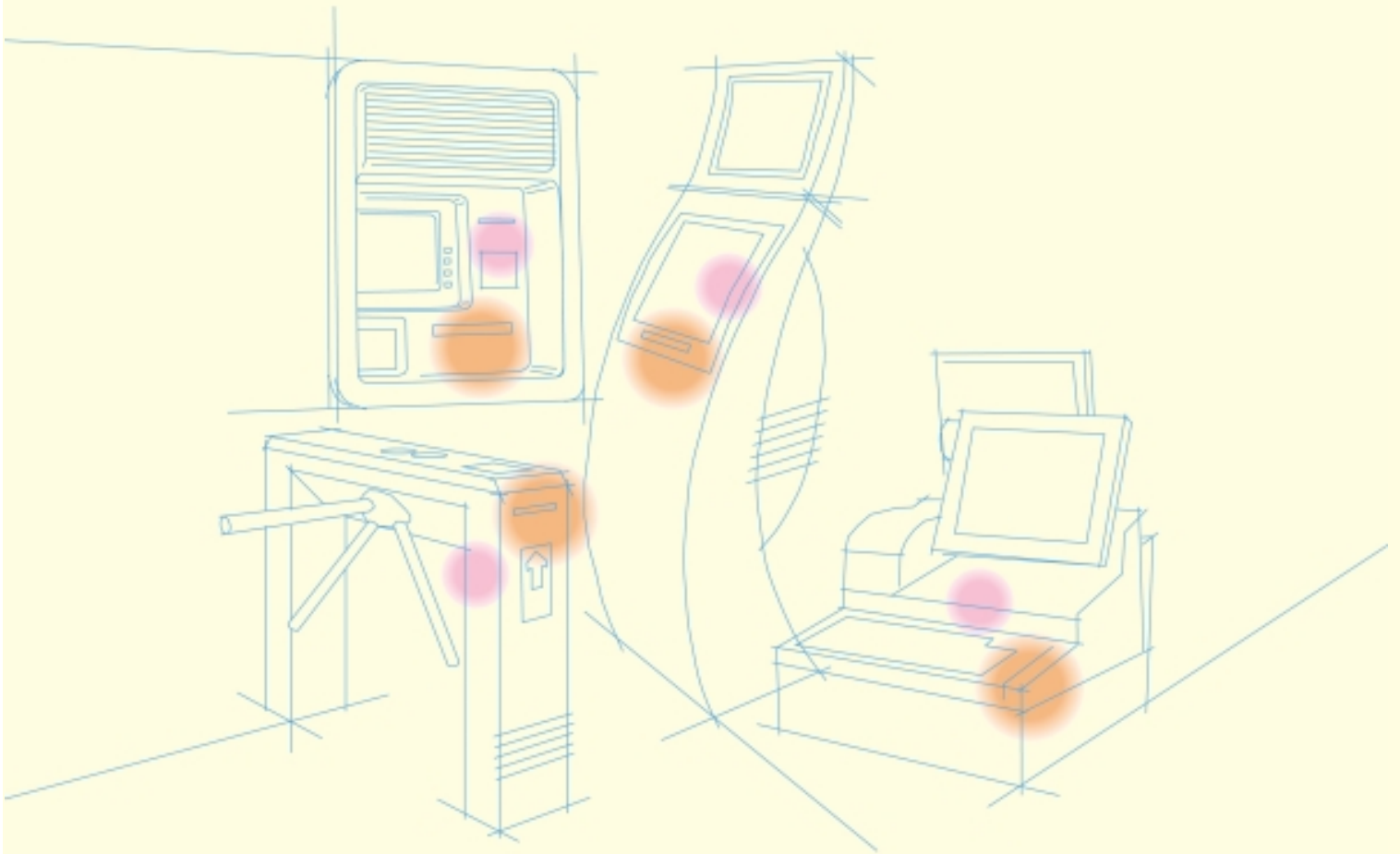
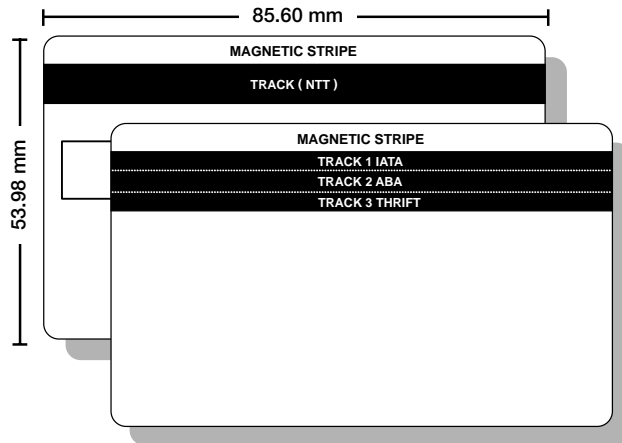


Card Reader Product Catalogue



Magnetic Stripe Data Format

Card Face



According to ISO7810, ISO7811, JIS X6301, X6302 Standards

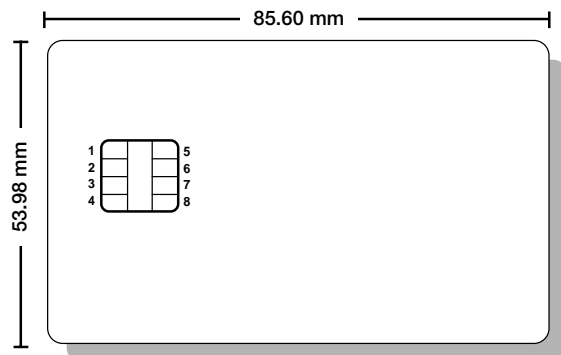
Type	Track	bpi	bits/character	Number of Characters
ISO/JIS-I	TRACK 1 (IATA)	210	7	79 Alpha-Numeric
	TRACK 2 (ABA)	75	5	40 Numeric
	TRACK 3 (THRIFT)	210	5	107 Numeric
JIS-II	TRACK (NTT)	210	8	72 Alpha-Numeric

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)

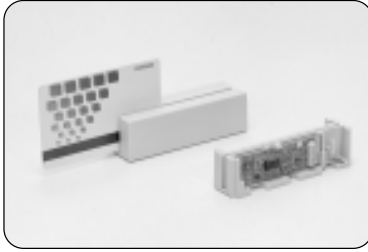
- V2AF Series
- V2BF Series

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	D x H	
V3A-1	R	R	R		—	—	TTL	Ivory White	5VDC+/-10%	90	24 x 24	
V3A-4		R			—	—	TTL	Ivory White	5VDC+/-10%	90	24 x 24	
V3A-4K		R			Yes	—	TTL	Ivory White	5VDC+/-10%	90	28 x 26.5	
V3A-6	R	R			—	—	TTL	Ivory White	5VDC+/-10%	90	24 x 24	
V3A-7		R	R		—	—	TTL	Ivory White	5VDC+/-10%	90	24 x 24	
V3A-F	R	R		R	—	—	TTL	Ivory White	5VDC+/-10%	90	24 x 24	
V3B-4		R			—	Yes	TTL	Black	5VDC+/-10%	100	32.5 x 32	
V3B-4K		R			Yes	Yes	TTL	Black	5VDC+/-10%	100	32.5 x 32	
3S4YR-HNFR1	R	R	R		Yes	Yes	RS232	Ivory white	RS232 port	38.6	100 x 35.2	
3S4YR-HNFR4		R			Yes	Yes	RS232	Ivory white	RS232 port	38.6	100 x 35.2	
3S4YR-HNFR1-002	R	R	R		Yes	Yes	RS232	Ivory white	Keyboard port	38.6	100 x 35.2	
3S4YR-HNFR4-002		R			Yes	Yes	RS232	Ivory white	Keyboard port	38.6	100 x 35.2	
V3TU-1K	R	R	R		Yes	Yes	USB1.0	White	USB port	58.3	120 x 39.5	with driver (CD ROM provide separately)
V3TU-FK	R	R		R	Yes	Yes	USB1.0	White	USB port	58.3	120 x 39.5	

R : Read only R/W : Read/Write

Manual Type (Insertion)

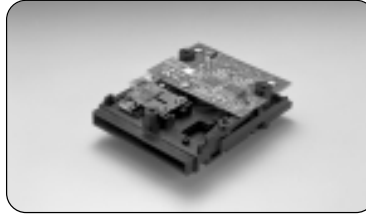
3S4YR-SGR Series



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

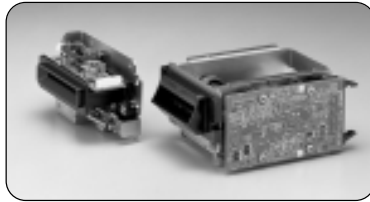
Basic Specification

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		

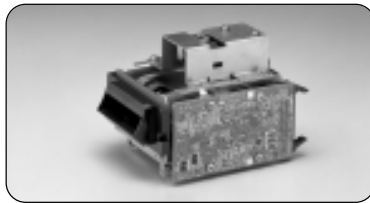
R : Read only R/W : Read/Write

Motor Driven Type (with TTL interface)

3S4YR-MBR/MCR Series



MBR : Magnetic card only

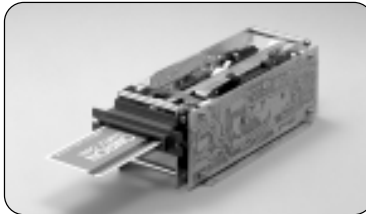


MCR : IC card only

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

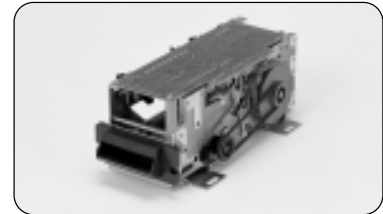


Compact size and light weight

- 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.	

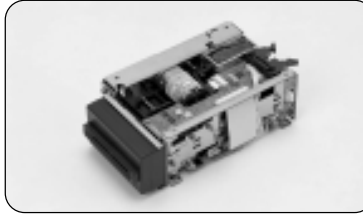
R : Read only R/W : Read/Write

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

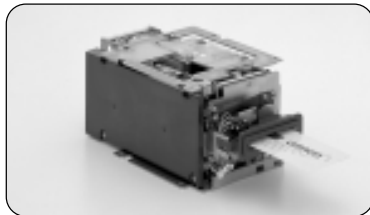
Basic Specification

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	D x H	
V2AF-01JP	R	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	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

Worldwide Sales Network

AMERICAS

USA

OMRON ELECTRONICS, INC.
1 East Commerce Drive, Schaumburg, Illinois,
60173 U.S.A.
TEL. 1-847-843-7900
FAX. 1-847-843-7787

Canada

OMRON CANADA INC.
885 Milner Avenue, Scarborough, Ontario,
M1B 5V8 CANADA
TEL. 1-416-286-6465
FAX. 1-416-286-6648/6774

Brazil

OMRON BUSINESS SISTEMAS ELETRONICOS DA
AMERICA LATINA LTDA.
Av. Paulista 171, 5o.andar cpto 52, Bela Vista,
Sao Paulo-SP, Brazil, CEP 01311-000
TEL. 55-11-251-0073
FAX. 55-11-251-1053

EUROPE

European Headquarter

OMRON ELECTRONICS COMPONENTS EUROPE B.V.
Wegalaan 57, 2132 JD HOOFFDORP,
The Netherlands
TEL. 31-23-5681200
FAX. 31-23-5681212
OMRON is represented in all European Countries,
please contact our European Headquarters for your
nearest OMRON sales office or Distributor.

ASIA-PACIFIC

Beijing

OMRON CORPORATION BEIJING OFFICE
21F Beijing East Ocean Centre, No.24A, Jian Guo
Men Wai Da Jie, Chao Yang Districk Beijing 100022
CHINA
TEL. 86-10-6515-5783
FAX. 86-10-6515-5797

Shanghai

OMRON TRADING (SHANGHAI) CO., LTD.
Room 032 14th Floor Shanghai Senmao
International Building 101 Yin Cheng East Road,
Pu Dong New Area, Shanghai, 200120 CHINA
TEL. 86-21-6841-3322
FAX. 86-21-6841-3092

Hong Kong

OMRON ELECTRONICS ASIA LTD.
601-9, Tower 2 The Gateway No.25 Canton Road,
Tsimshatsui, Kowloon, HONG KONG
TEL. 852-2768-1138
FAX. 852-2375-7362

Taiwan

OMRON TAIWAN ELECTRONICS INC.
6F Home Young Bldg. No.363 Fu-Shing North Rd.
Taipei, TAIWAN R.O.C.
TEL. 886-2-2715-3331
FAX. 886-2-2712-6712

Singapore

OMRON BUSINESS SYSTEMS SINGAPORE (PTE.)
LTD.
83, Clemenceau Avenue, #11-02, UE Square,
Singapore 239920 SINGAPORE
TEL. 65-6736-3900
FAX. 65-6736-2736

Australia

OMRON ELECTRONICS PTY. LTD.
71 Epping Road North Ryde, NSW 2113, Sydney,
AUSTRALIA
TEL. 61-2-9878-6377
FAX. 61-2-9878-6981

Korea

HWA SUNG INTERNATIONAL KOREA
#1313, Korea Business Center 1338-21,
Seocho-dong, Seocho-ku, Seoul 137-860 KOREA
TEL. 82-2-3474-5505
FAX. 82-2-3474-3021

Israel

JOINT BINARIC SYSTEMS LTD.
7 Baltmor St. Kiryat Arie Petah Tiqva,
Tel Aviv ISRAEL 61530 P.O.B.53032
TEL. 972-3-9212802
FAX. 972-3-9218264

- Examples described in this catalogue are solely for reference purposes. Please confirm equipment and device functions and safety before use.
- Pay special attention to safety, such as using the product with an ample margin of rating and performance and introducing failsafe systems, and consult our sales representatives for more information and confirm safety by consulting our specifications, when the product is used where special safety is required, such as for usage in conditions or environments other than described in this catalogue, or in the case that failure might cause severe influence to human life and/or property.
- Description of this catalogue warrants only unit product characteristics and quality. Never forget to evaluate and confirm characteristics and quality in the state equipped on the final application product that you will actually use.
- OMRON shall not be responsible for any trouble related to industrial property rights of any third party occurring through the use of the product, excluding the case that such trouble is incurred as a result of the OMRON product structure or production process.
- All specifications may be subject to change without notice.

OMRON Corporation

ADVANCED MODULE BUSINESS COMPANY
INTERNATIONAL MODULE SALES
SALES & MARKETING DIVISION

3-4-10, TORANOMON, MINATO-KU, TOKYO, 105-0001, JAPAN
PHONE. 81-3-3436-7074 FAX. 81-3-3436-7054

URL : <http://www.omron.com/card>

● Contact our nearest representative at

IW-01

1k 0207

© OMRON Corporation 2002 All Rights Reserved

- This catalog is valid as of April 2002.
- Real products may slightly differ in color from catalog products, due to catalog printing methods.
- All specifications may be subject to change without notice.