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TECHNOLOGY GROUP

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Expert team | Trust guarantee | 100% satisfaction

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Find the *OMRON 0103* at our website: ***Click HERE***

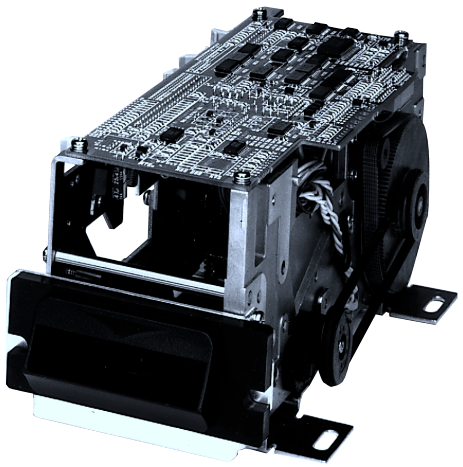
OMRON®

Motor Driven Card Reader/Writer

3S4YR-MKW

Versatile Hybrid Reader/Writer Handles Both Magnetic and IC Cards

- Durable 4-wheel, 2-belt drive with roller accommodates discrepancies in card thickness to accept warped or bent cards
- Metal blade shutter prevents tampering
- Compact size and light weight allow easy installation in any terminal
- Two integrated chip station positions available
- Adjustable to card thicknesses of 0.20 mm, 0.40 mm, and 0.76 mm (PET, paper, or PVC cards)
- HiCo write capability available
- Watermark capability available



Ordering Information

Magnetic Tracks Supported (R, R/W)											
1	2	3	Center	JIS II	IC Contact	Interface	Shutter	Cover	Cable	Color	**Part Number**
R/W	R/W	R/W	—	—	ISO 7816	TTL	Yes	No	No	Black	**3S4YR-MKW1JD**
R/W	R/W	R/W	—	—	ISO 7816/CP8	TTL	Yes	No	No	Black	**3S4YR-MKW1XD**
R/W	R/W	R/W	—	—	Option	TTL	Option	No	No	Black	**3S4YR-MKW1PC**
R/W	R/W	R/W	—	—	Option	TTL	Option	No	No	Black	**3S4YR-MKW1PCH**
R/W	R/W	R/W	—	—	Option	TTL	Yes	No	No	Black	**3S4YR-MKW1PD**
R/W	—	—	—	—	Option	TTL	Option	No	No	Black	**3S4YR-MKW3PC**
—	R/W	—	—	—	Option	TTL	Option	No	No	Black	**3S4YR-MKW4PC**
—	R/W	—	—	—	Option	TTL	Option	No	No	Black	**3S4YR-MKW4PCH**
—	R/W	—	—	—	Option	TTL	Yes	No	No	Black	**3S4YR-MKW4PD**
—	—	R/W	—	—	Option	TTL	Option	No	No	Black	**3S4YR-MKW5PC**
R/W	R/W	—	—	—	Option	TTL	Option	No	No	Black	**3S4YR-MKW6PC**
—	R/W	R/W	—	—	Option	TTL	Option	No	No	Black	**3S4YR-MKW7PC**

Note: Only the MKW1PCH and MKW4PCH are capable of writing HiCo cards. All models can read HiCo cards.

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■ TYPICAL APPLICATIONS

- Cash Dispensers
- Automatic Teller Machines (ATM)
- POS Terminals
- Credit Card Checkers
- ID Card Checkers
- Electronic Lock Systems
- Medical Patient Systems
- Health Control Systems

■ ACCESSORIES

Description	Part Number
IC Contact, chip on the front, lower position	**IC CONTACT J** (See note 1)
IC Contact, chip on the front, upper and lower positions	**IC CONTACT X** (See note 1)
Shutter for MKW1PC, MKW1PCH, MKFW1PC	**SHUTTER MKD1**
Shutter for MKW3PC	**SHUTTER MK3**
Shutter for MKW4PC, MKW4PCH	**SHUTTER MK4**
Shutter for MKW5PC	**SHUTTER MK5**
Shutter for MKW6PC	**SHUTTER MK6**
Shutter for MKW7PC	**SHUTTER MK7**
MM Sensor Holder (MM sensor itself must be purchased from the manufacturer.)	**MM HOLDER**
Watermark Reader Head. Cannot be used to write track 1.	**WATERMARK HEAD** (See note 2)
Watermark Circuit Board. Cannot be used to write track 1.	**WATERMARK PCB** (See note 2)

Note 1: Consult your Omron sales representative for IC contact accessories. Special configurations can be supplied.
2: Watermark Reader Head and Watermark Circuit Board must be ordered together.

Specifications

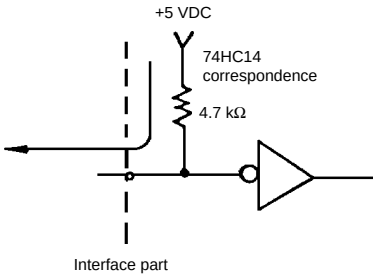
Part number		3S4YR-MKW
Recommended card type	Magnetic card	ISO 7810-7813
	IC card	ISO 7816/1, 2
Recording method		FM decoding (F2F)
Card feeding speed		20 cm/sec ± 10% (7.87 in/sec)
Motor type		DC motor
Service life (See note)		1,200,000 passes min.
Operating power supply	Amplifier	24 VDC ± 10%
	Motor	24 VDC ± 10%
	Control logic	5 VDC ± 5%
Current consumption	Amplifier	260 mA max.
	Motor	1.7 A max.
	Control logic	330 mA max.
Mounting location		Anywhere not directly subject to water or rain
Mounting orientation		Stripe top or stripe bottom
Ambient temperature	Operation	-5° to 55°C (23° to 131°F)
	Storage	-25° to 70°C (-13° to 158°F)
Ambient humidity	Operation	45% to 85% RH without condensation
	Storage	30% to 90% RH
Vibration		10 to 55 Hz, 2 mm double amplitude, for 30 minutes in X, Y, and Z directions
Shock		300 m/sec^2 (30 G) in each of X, Y, and Z directions
Dimensions	With shutter	247L x 106W x 92H mm (9.72L x 4.17W x 3.62H in)
	Without shutter	222L x 98W x 92H mm (8.74L x 3.86W x 3.62H in)
Weight		Approx. 1.9 kg (4.2 lbs) when fully equipped

Note: One pass denotes one round trip.

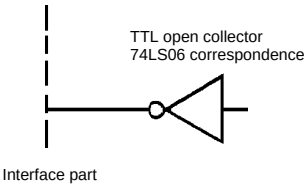
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Engineering Data

■ INPUT CIRCUIT DIAGRAM



■ OUTPUT CIRCUIT DIAGRAM



■ I/O INFORMATION

3S4YR-MKW
Connector of Magnetic Card (CN1 Signal)

3M 3433-5302JL. Mate: 3M 3425-6550EL.

Pin #	Signal	Input/Output	Pin #	Signal	Input/Output
1	+5 VDC	—	26	$\overline{S1}$	Output
2	+5 VDC	—	27	$\overline{S2}$	Output
3	0 V	—	28	$\overline{S3}$	Output
4	0 V	—	29	$\overline{S4}$	Output
5	P24V	—	30	$\overline{STW}$	Output
6	P24V	—	31	$\overline{RCP1}$	Output
7	P0V	—	32	$\overline{RDP1}$	Output
8	P0V	—	33	$\overline{RCP2}$	Output
9	$\overline{MFW}$	Input	34	$\overline{RDP2}$	Output
10	$\overline{MRV}$	Input	35	$\overline{RCP3}$	Output
11	$\overline{SOL1}$	Input	36	$\overline{RDP3}$	Output
12	—	—	37	$\overline{RCP4}$	Output
13	—	—	38	$\overline{RDP4}$	Output
14	—	—	39	$\overline{WCP1}$	Output
15	—	—	40	$\overline{WCP2}$	Output
16	—	—	41	$\overline{WDT1}$	Input
17	$\overline{WEN}$	Input	42	$\overline{CNT1}$	Input
18	—	—	43	$\overline{WDT2}$	Input
19	$\overline{RCPS}$	—	44	$\overline{CNT2}$	Input
20	$\overline{RDP5}$	—	45	$\overline{WDT3}$	Input
21	$\overline{SHD1}$	Output	46	$\overline{CNT3}$	Input
22	$\overline{WDV}$	Output	47	$\overline{WDT4}$	Input
23	$\overline{SHE}$	Output	48	$\overline{CNT4}$	Input
24	$\overline{WID}$	Output	49	+24 VDC	—
25	$\overline{S0}$	Output	50	+24 VDC	—

3S4YR-MKW
Connector of IC Card (CN2 Signal)

3M 3408-5302JL. Mate: 3M 3452-6516EL.

Pin #	Signal	Input/Output	Pin #	Signal	Input/Outut
1	IVCC	◆	9	IRS1	◆
2	IRST	◆	10	IRS2	◆
3	ICIO	◆	11	$\overline{IECO}$	Input
4	IGND	◆	12	—	—
5	—	—	13	$\overline{IMSL}$	Input
6	ICKL	◆	14	$\overline{ISOL}$	Input
7	IVCC	◆	15	+5 VDC	—
8	IVPP	◆	16	0 V	—

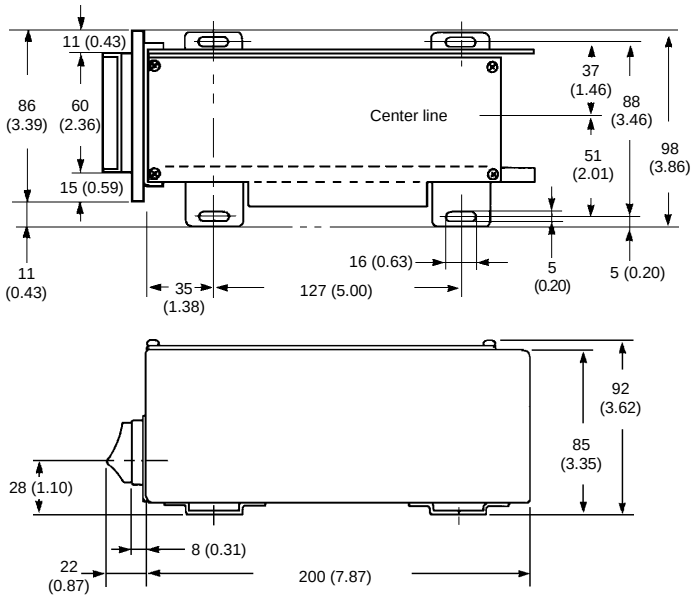
◆ = Direct IC Contact

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Dimensions

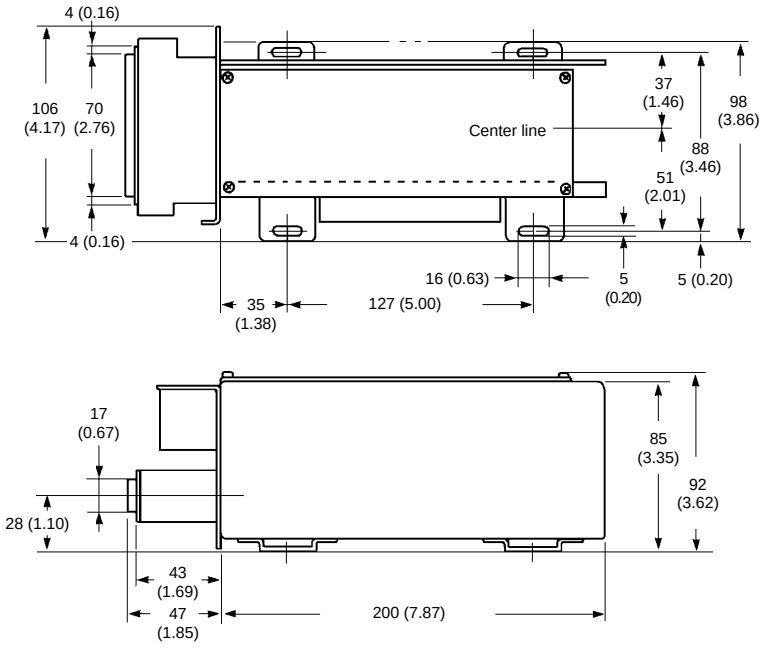
Unit: mm (inch)

■ 3S4YR-MKW WITHOUT SHUTTER



Stripe down shown. Can be mounted with stripe up.

■ 3S4YR-MKW WITH SHUTTER



Stripe down shown. Can be mounted with stripe up.

Note: Unless otherwise specified, tolerance is ±0.3.

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NOTE: DIMENSIONS ARE SHOWN IN MILLIMETERS. To convert millimeters to inches divide by 25.4.

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