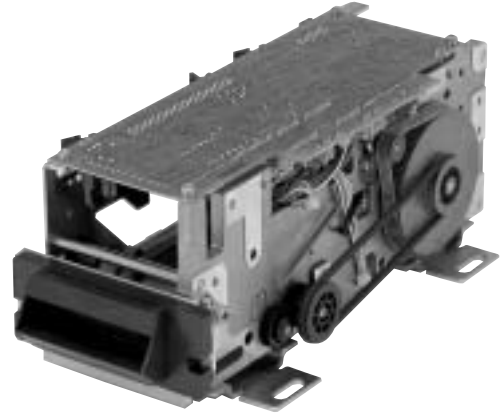


Versatile Hybrid Reader/Writer Handles Both Magnetic and IC Cards

- 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



Ordering Information

| Magnetic Tracks Supported (R, R/W) | | | | | IC Contact | Interface | Shutter | Cover | Cable | Color | Part Number |
|------------------------------------|-----|-----|--------|--------|------------|-----------|----------|-------|-------|-------|--------------------------|
| 1 | 2 | 3 | Center | JIS II | | | | | | | |
| R/W | R/W | R/W | — | — | Option | TTL | Option | No | No | Black | 3S4YR-MKW1PC-01 |
| R/W | R/W | R/W | — | — | Option | TTL | Option | No | No | Black | 3S4YR-MKW1PCH |
| — | R/W | — | — | — | Option | TTL | Option | No | No | Black | 3S4YR-MKW4PC-01 |
| R/W | R/W | R/W | — | R/W | — | TTL | No Inlet | No | No | Black | 3S4YR-MKWAPC-100k |

Note: Only the MKW1PCH is capable of writing HiCo cards. All models can read HiCo cards.

■ 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-01, MKW1PCH | SHUTTER MKD7 |
| Shutter for MKW4PC-01 | SHUTTER MKD4 |

Note 1: Consult your Omron sales representative for IC contact accessories. Special configurations can be supplied.

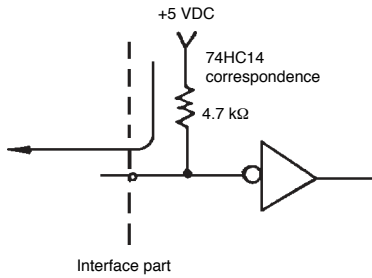
Specifications

| | | |
|-------------------------|--|---|
| 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 \pm 10% (7.87 in/sec) | |
| Motor type | DC motor | |
| Service life (See note) | 1,200,000 passes min. | |
| Operating power supply | Amplifier | 24 VDC \pm 10% |
| | Motor | 24 VDC \pm 10% |
| | Control logic | 5 VDC \pm 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 | |

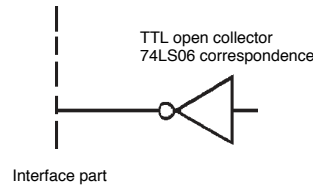
Note: One pass denotes one round trip.

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 | S1 | Output |
| 2 | +5 VDC | — | 27 | S2 | Output |
| 3 | 0 V | — | 28 | S3 | Output |
| 4 | 0 V | — | 29 | S4 | Output |
| 5 | P24V | — | 30 | STW | Output |
| 6 | P24V | — | 31 | RCP1 | Output |
| 7 | P0V | — | 32 | RDP1 | Output |
| 8 | P0V | — | 33 | RCP2 | Output |
| 9 | MFW | Input | 34 | RDP2 | Output |
| 10 | MRV | Input | 35 | RCP3 | Output |
| 11 | SOL1 | Input | 36 | RDP3 | Output |
| 12 | — | — | 37 | RCP4 | Output |
| 13 | — | — | 38 | RDP4 | Output |
| 14 | — | — | 39 | WCP1 | Output |
| 15 | — | — | 40 | WCP2 | Output |
| 16 | — | — | 41 | WDT1 | Input |
| 17 | WEN | Input | 42 | CNT1 | Input |
| 18 | — | — | 43 | WDT2 | Input |
| 19 | RCPS | — | 44 | CNT2 | Input |
| 20 | RDP5 | — | 45 | WDT3 | Input |
| 21 | SHD1 | Output | 46 | CNT3 | Input |
| 22 | WDV | Output | 47 | WDT4 | Input |
| 23 | SHE | Output | 48 | CNT4 | Input |
| 24 | WID | Output | 49 | +24 VDC | — |
| 25 | 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/Output |
|-------|--------|--------------|-------|--------|--------------|
| 1 | IVCC | ◆ | 9 | IRS1 | ◆ |
| 2 | IRST | ◆ | 10 | IRS2 | ◆ |
| 3 | ICIO | ◆ | 11 | IECO | Input |
| 4 | IGND | ◆ | 12 | — | — |
| 5 | — | — | 13 | IMSL | Input |
| 6 | ICKL | ◆ | 14 | ISOL | Input |
| 7 | IVCC | ◆ | 15 | +5 VDC | — |
| 8 | IVPP | ◆ | 16 | 0 V | — |

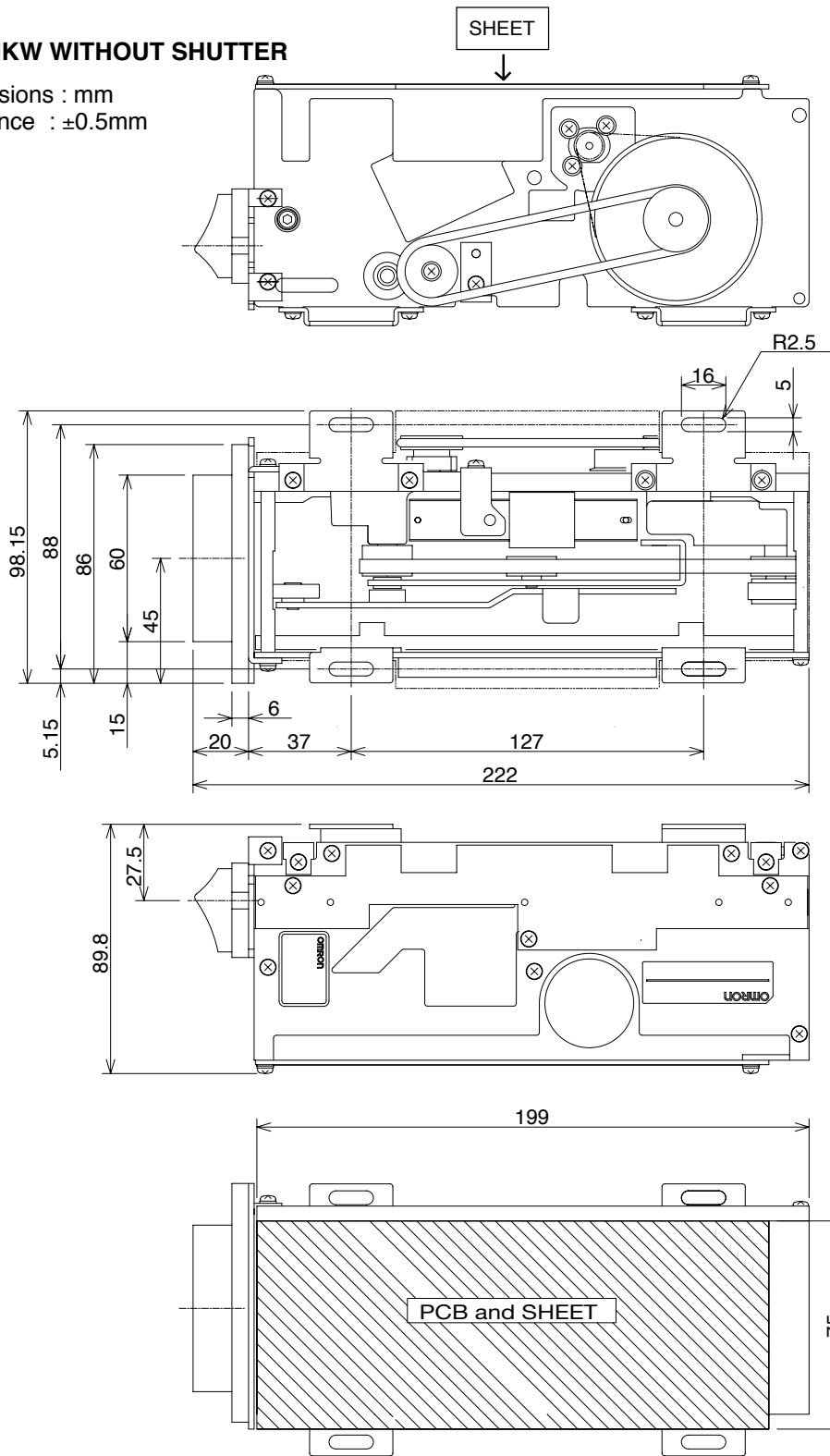
◆ = Direct IC Contact

Dimensions

Unit: mm (inch)

■ 3S4YR-MKW WITHOUT SHUTTER

Dimensions : mm
Tolerance : ±0.5mm



Stripe down shown.
Can be mounted with
stripe up.



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

Contact our nearest representative at