

Manual Swipe Magnetic Card Reader

V3B

Low Cost, Compact, Manual Swipe Reader

- Low power C-MOS technology
- Multiple configurations
- Same size as the Omron HSR series
- TTL-compatible interface (clock & data)
- Available with or without cover



Ordering Information

Magnetic Tracks Supported (R, R/W)										
1	2	3	Center	JIS II	IC Contact	Interface	Cover	Cable	Color	Part Number
R	R	R	—	—	No	TTL	Yes	Yes	Black	V3B-1K
R	R	R	—	—	No	TTL	No	Yes	Black	V3B-1
R	—	—	—	—	No	TTL	Yes	Yes	Black	V3B-3K
R	—	—	—	—	No	TTL	No	Yes	Black	V3B-3
—	R	—	—	—	No	TTL	Yes	Yes	Black	V3B-4K
—	R	—	—	—	No	TTL	No	Yes	Black	V3B-4
—	—	R	—	—	No	TTL	Yes	Yes	Black	V3B-5K
—	—	R	—	—	No	TTL	No	Yes	Black	V3B-5
R	R	—	—	—	No	TTL	Yes	Yes	Black	V3B-6K
R	R	—	—	—	No	TTL	No	Yes	Black	V3B-6
—	R	R	—	—	No	TTL	Yes	Yes	Black	V3B-7K
—	R	R	—	—	No	TTL	No	Yes	Black	V3B-7

Note: Cable harness is included with all V3B models. It is optional for V3A.

■ TYPICAL APPLICATIONS

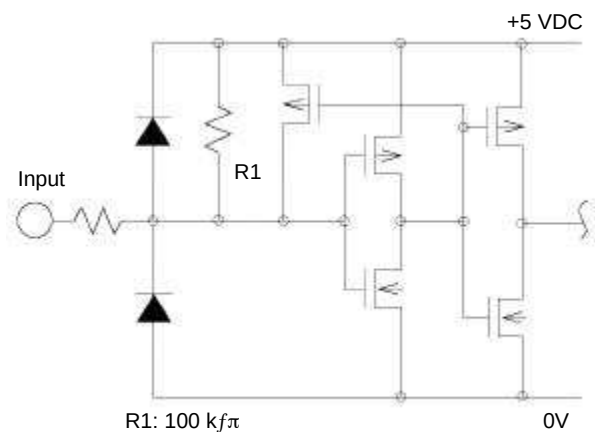
- Point-of Sale (POS) systems
- ID card checkers
- Club membership
- Access management
- Remote terminals for computers

Specifications

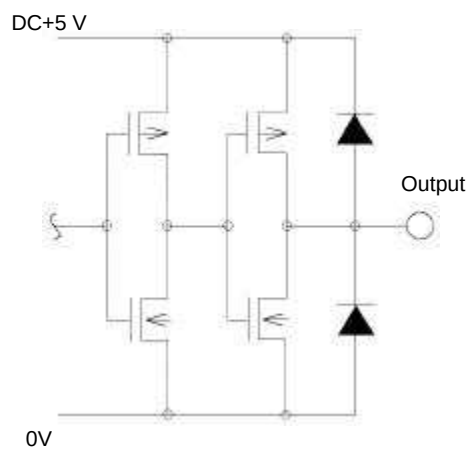
Part number		V3B-□□
Recommended card type		ISO 7810, 7811/1-6
Recording method		FM decoding (F2F)
Card feeding speed		10 to 120 cm/second (10 to 100 cm/sec triple track)
Service life of magnetic head		300,000 passes
Operating power supply		+5 VDC $\pm 10\%$
Current consumption	Single track	3 mA typical, 5 mA maximum
	Dual track	6 mA typical, 10 mA maximum
	Triple track	9 mA typical, 15 mA maximum
Mounting location		Indoors—away from direct sunlight or wet, humid environment
Ambient temperature	Operation	-10° to 55°C (14°F to 131°F)
	Storage	-30° to 70°C (-22°F to 158°F)
Ambient humidity	Operation	30% to 85% RH without condensation
	Storage	20% to 90% RH
Vibration		10 to 150 Hz, single vibration, width of 0.15 mm
Shock		Peak acceleration 19.6 m/sec ²
Dimensions	With cover	100 W x 32 H x 32.5 D mm (3.94 W x 1.26 H x 1.28 D in)
	Without cover	100 W x 29.5 H x 27 D mm (3.94 W x 1.16 H x 1.06 D in)
Weight		Approx. 82 g with cover (52 g without cover)

Engineering Data

INPUT CIRCUIT DIAGRAM



OUTPUT CIRCUIT DIAGRAM



■ I/O INFORMATION

Single Track Connector Harness

5-pin Molex connector part number 51102-0500.

Pin #	Signal	Input/Output	Description
1	$\overline{\text{RDP}}$	Output	Read data
2	$\overline{\text{RCP}}$	Output	Read clock
3	$\overline{\text{CLS}}$	Output	Card loaded
4	+5 VDC	—	—
5	0 VDC	—	—

Double Track Connector Harness

9-pin Molex connector part number 51102-0900.

Pin #	Signal	Input/Output	Description
1	$\overline{\text{RDP1}}$	Output	Read data 1/3
2	$\overline{\text{RCP1}}$	Output	Read clock 1/3
3	$\overline{\text{CLS1}}$	Output	Card loaded 1/3
4	$\overline{\text{RDP2}}$	Output	Read data 2
5	$\overline{\text{RCP2}}$	Output	Read clock 2
6	$\overline{\text{CLS2}}$	Output	Card loaded 2
7	$\overline{\text{CSV}}$	Input	Current save
8	5V	—	—
9	0V	—	—

Triple Track Connector Harness

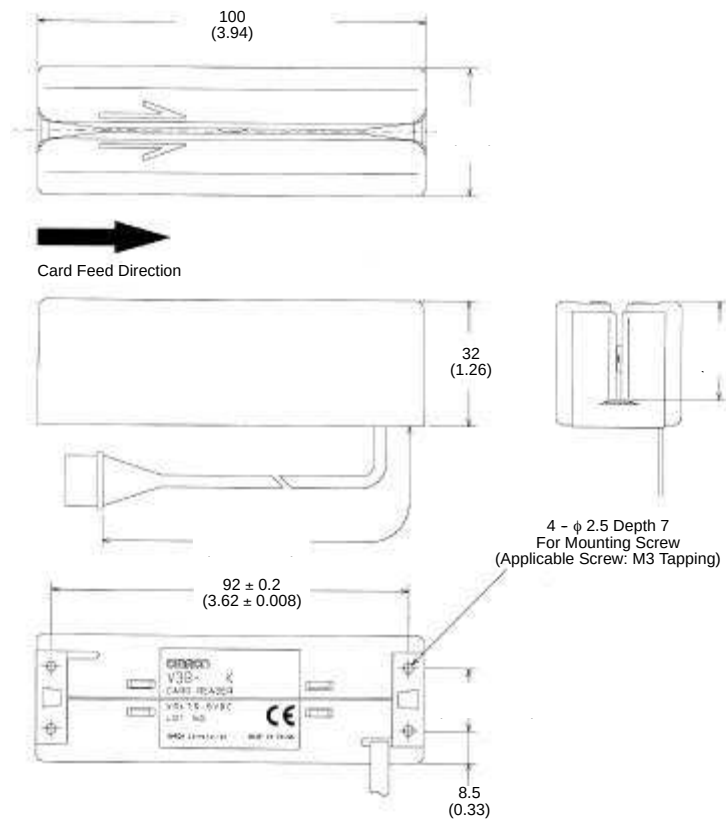
12-pin Molex connector part number 51102-1200.

Pin #	Signal	Input/Output	Description
1	$\overline{\text{RDP1}}$	Output	Read data 1
2	$\overline{\text{RCP1}}$	Output	Read clock 1
3	$\overline{\text{CLS1}}$	Output	Card loaded 1
4	$\overline{\text{RDP2}}$	Output	Read data 2
5	$\overline{\text{RCP2}}$	Output	Read clock 2
6	$\overline{\text{CLS2}}$	Output	Card loaded 2
7	$\overline{\text{RDP3}}$	Output	Read data 3
8	$\overline{\text{RCP3}}$	Output	Read clock 3
9	$\overline{\text{CLS3}}$	Output	Card loaded 3
10	$\overline{\text{CSV}}$	Input	Current save
11	5V	—	—
12	0V	—	—

Dimensions

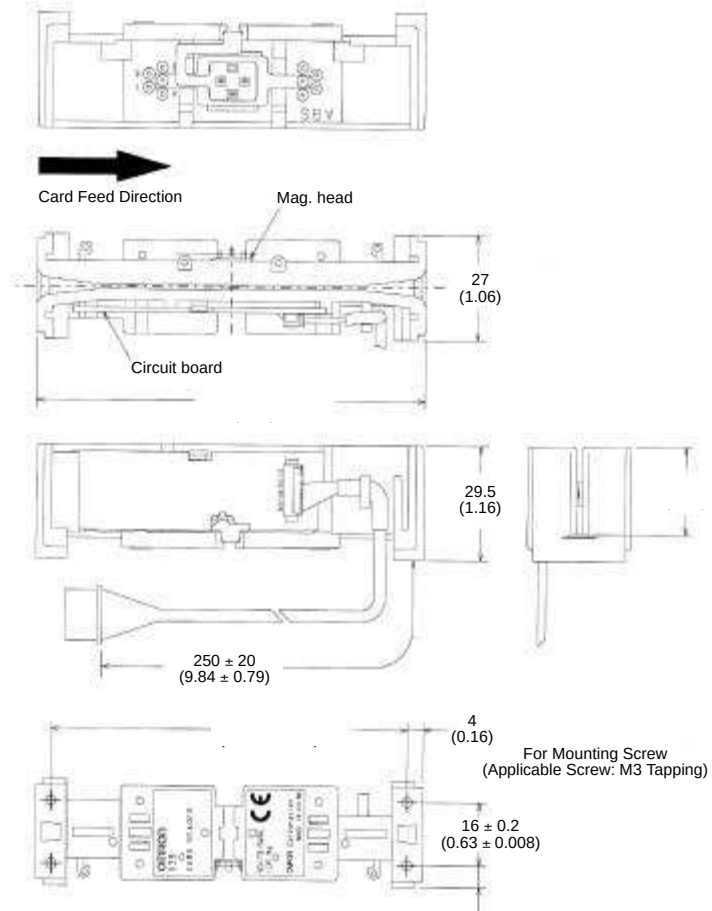
Unit: mm (inch)

■ V3B-□K



Note: Tolerances $\pm 0.3\text{mm}$ unless specified

■ V3B-□



Note: Tolerances ±0.3mm unless specified

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

OMRON®

OMRON ELECTRONICS, INC.

One East Commerce Drive
Schaumburg, IL 60173

1-800-55-OMRON

OMRON CANADA, INC.

885 Milner Avenue
Scarborough, Ontario M1B 5V8

416-286-6465