Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

OMRON®

Manual Swipe Magnetic Card Reader | 3S4YR-HNF

Peripheral-type, Compact, Manually Operated Card Reader

- Connects to the PC RS-232C port just like any other peripheral

- Sits conveniently next to the PC keyboard

- Easy-to-operate protocol

- Wide range of configurations available

- No external power supply required

Ordering Information

Magnetic tracks supported (R, R/W)					IC contact	Interface	Communication (See Note 1,2,3)	Cover	Cable	Color	Part Number
1	2	3	Center	JISII							
R	R	R	—	—	No	RS 232C	Unidirectional	Yes	Yes	Ivory	3S4YR-HNF1
R	R	R	—	—	No	RS 232C	Bidirectional	Yes	Yes	Ivory	3S4YR-HNF1-002
—	R	—	—	—	No	RS 232C	Unidirectional	Yes	Yes	Ivory	3S4YR-HNF4
—	R	—	—	—	No	RS 232C	Bidirectional	Yes	Yes	Ivory	3S4YR-HNF4-002
R	R	—	—	—	No	RS 232C	Unidirectional	Yes	Yes	Ivory	3S4YR-HNF6
R	R	—	—	—	No	RS 232C	Bidirectional	Yes	Yes	Ivory	3S4YR-HNF6-002
—	R	R	—	—	No	RS 232C	Unidirectional	Yes	Yes	Ivory	3S4YR-HNF7
—	R	R	—	—	No	RS 232C	Bidirectional	Yes	Yes	Ivory	3S4YR-HNF7-002
—	—	—	—	R	No	RS 232C	Bidirectional	Yes	Yes	Ivory	3S4YR-HNF2-002
—	—	—	—	R	No	RS 232C	Bidirectional	No	No	Ivory	3S4YR-HNF2-012
—	R	—	—	R	No	RS 232C	Unidirectional	Yes	Yes	Ivory	3S4YR-HNF24
—	R	—	—	R	No	RS 232C	Bidirectional	Yes	Yes	Ivory	3S4YR-HNF24-002
—	R	—	—	R	No	RS 232C	Bidirectional	No	No	Ivory	3S4YR-HNF24-012
R	R	—	—	R	No	RS 232C	Bidirectional	Yes	Yes	Ivory	3S4YR-HNF26-002
R	R	—	—	R	No	RS 232C	Bidirectional	No	No	Ivory	3S4YR-HNF26-012

Note: 1. Communication protocol comes in two types: Unidirectional = response only, and Bidirectional = command/response
2. For information regarding keyboard wedge interface models, contact your Omron representitive.
3. Bidirectional models derive power from the keyboard port, unidirectional models derive power directly from the RS–232 port.

■ TYPICAL APPLICATIONS

- POS Systems
- Credit Card Readers
- ID Card Checkers
- PC Peripherals

Specifications ────────────────────────

Part number	HNF
Recommended card type	ISO 7810, 7811-1 to -5, 7812 & 7813
Recording method	F2F
Swipe direction	Reads in either direction
Communication protocol	Unidirectional (response only) or Bidirectional (command/response)
Card feeding speed	100 to 1,000 mm/sec. (200 to 1,000 mm/sec. for 3 track stripe card)
Interface connector	D–sub 9–pin (female) Bidirectional units also have PS/2 connector (mini-din 6-pin)
Mounting location	Indoors; away from rain, sunlight and dust
Power supply	Unidirectional: powered from RS-232C port Bidirectional: powered from keyboard port
Current consumption	Unidirectional, 12 mA dual track, 16 mA triple track
Ambient temperature	Operation	0 to 45°C (32 to 113°F)
	Storage	–15 to 60°C (5 to 140°F)
Ambient humidity	Operation	30 to 85% RH, with no condensation and absolute air humidity of 23 g/m^3 or less
	Storage	20 to 90% RH, with no condensation and absolute air humidity of 40 g/m^3 or less
Vibration endurance	10 to 150 Hz, single vibration width of 0.15 mm or an acceleration of 19.6 m/s^2 (2 G)
Shock endurance	196 m/s^2 (20 G)
Cable length	1500 mm (59.06)
Dimensions	100 L x 38.6 W x 35.2 H mm (3.94 L x 1.52 W x 1.39 H in)
Weight	Approx. 185 g (6.53 oz)
Service life	300,000 passes minimum

I/O Information ────────────────────────

■ INTERFACE CONNECTOR

D-Sub 9-pin (female). Bidirectional uses 6-pin mini-din (male and female)

■ INTERFACE METHOD

Conforms to EIA RS-232C

Transmission speed: 9600 bps

Communication method: Half-duplex

Synchronizing method: Start-stop synchronization

Data bit length: 8 bits

Error detection: Even parity
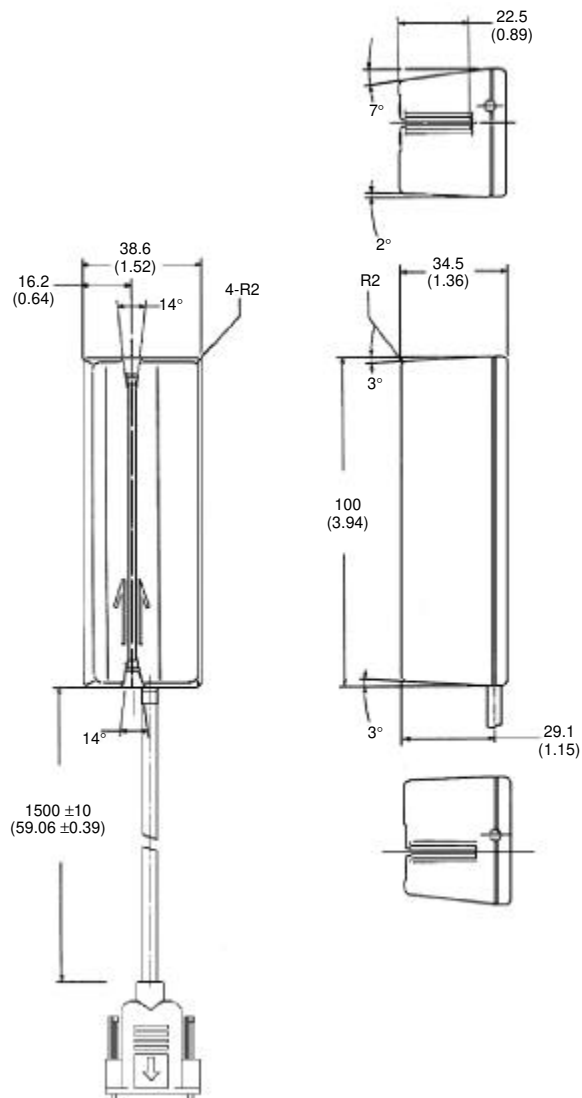
Stop bit: 1 bit

■ **PIN ASSIGNMENT**

(View from PC side)

Pin number	Signal	Description	Input/output
1	CF (DCD)	Loop-back of RTS	Input
2	BB (RXD)	Card data	Input
3	BA (TXD)	Command data (bidirectional models)	Output
4	CD (DTR)	Always ON at PC side	Output
5	AB (SG)	Signal ground	—
6	CC (DSR)	Data Set Ready	Input
7	CA (RTS)	Request to send	Output
8	CB (CTS)	Loop-back of RTS	Input
9	CE (RI)	Open	Input
Frame	AA (FG)	Frame ground	—

Dimensions

Unit: mm (inch)
HNF-☐

HNF-□-002

HNF-□-012

20.5 +0.2
(0.81 +0.008)

30.5
(1.20)

3.5
(0.14)

10.4
(0.41)

7
(0.28)

9
(0.35)

2 holes
2.4 dia.
(0.09)

Mag
head

80 ±0.2
(3.15 ±0.008)

72 ±0.2
(2.83 ±0.008)

90 −0.2
(3.54 −0.008)

2 holes
3.5 dia.
(0.14)

3
(0.19)

24 −0.2
(0.94 −0.008)

1.2 +0.1
(0.05 +0.004)

24 −0.2
(0.94 −0.008)

32.3
(1.27)

5
(0.2)

18 −0.2
(0.71 −0.008)
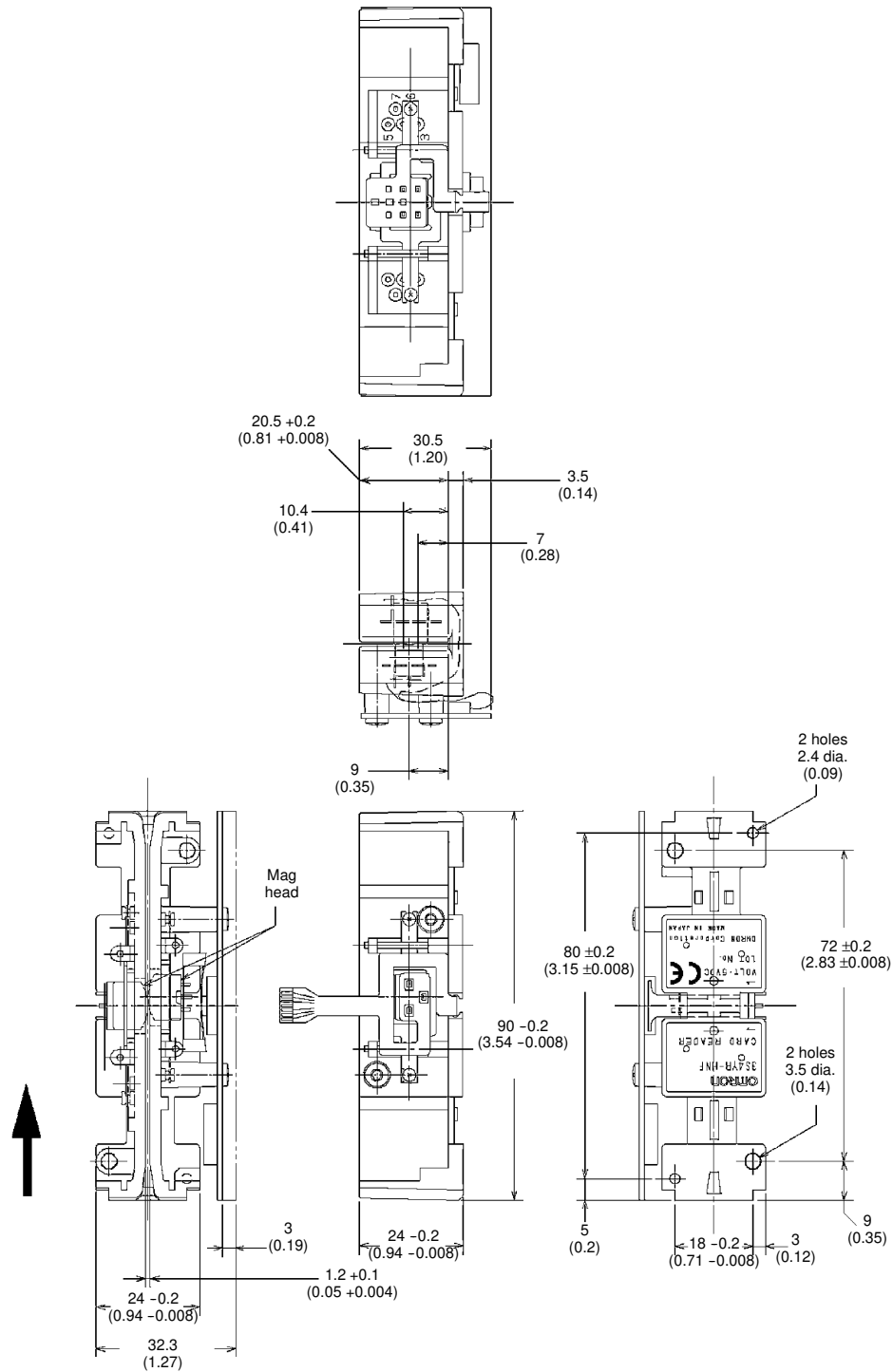
3
(0.12)

9
(0.35)

CARD READER

omron 3S4YR-HNF

VOLT·5VDC

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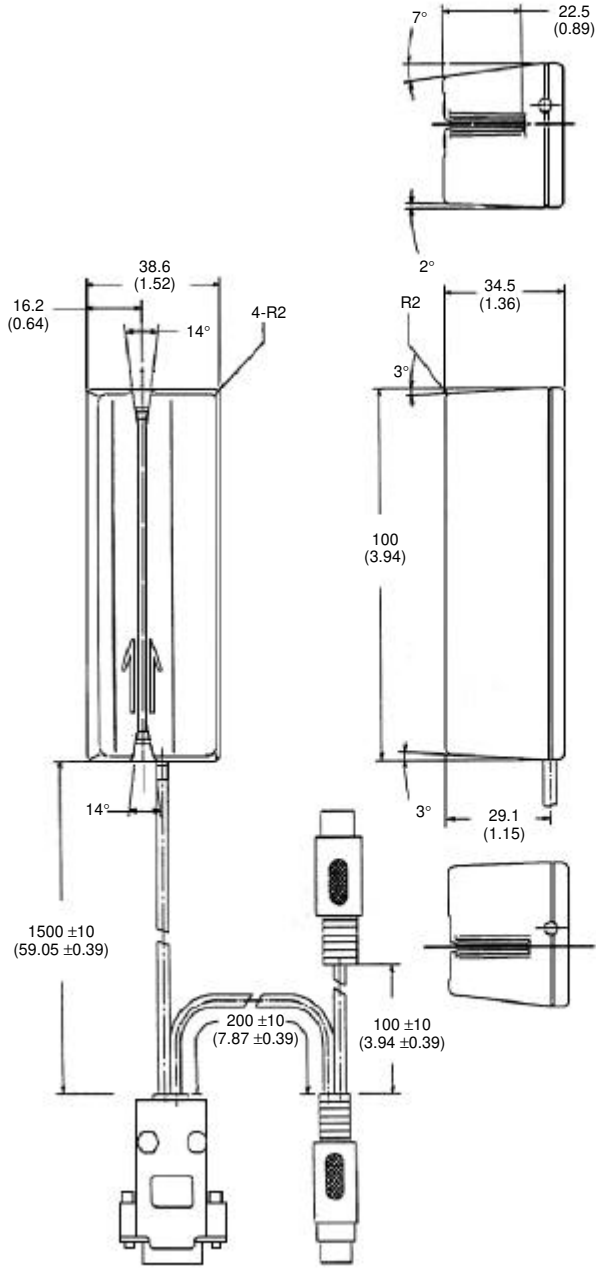
NOTE: DIMENSIONS SHOWN ARE IN MILLIMETERS. To convert millimeters to inches divide by 25.4.

OMRON ®

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