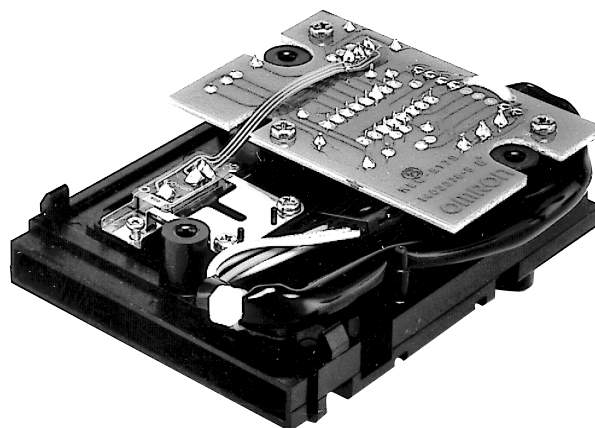


Compact, Highly Reliable Insert Reader
Reads 62% of Magnetic Track

- Effective strip length of 46.6 mm max.
- Microswitches incorporated for card detection
- Slim package
- Wide operating temperature range
- Housing compatible with SCR type for easy conversion to IC card
- TTL-compatible interface (clock & data)



Ordering Information

Magnetic Tracks Supported (R, R/W)					IC contact	Interface	Cable	Cover	Color	Part Number
1	2	3	Center	JIS II						
R	—	—	—	—	No	TTL	No	No	Black	3S4YR-SBR3-20
—	R	—	—	—	No	TTL	No	No	Black	3S4YR-SBR4-20
—	—	R	—	—	No	TTL	No	No	Black	3S4YR-SBR5-20
R	R	—	—	—	No	TTL	No	No	Black	3S4YR-SBR6-20
—	R	R	—	—	No	TTL	No	No	Black	3S4YR-SBR7-20

■ TYPICAL APPLICATIONS

- Access Control
- Time and Attendance
- ID Card Checkers
- Electronic Locks
- Remote Terminals for Computers
- Telephones
- Vending
- Gaming Machines

Specifications

Part number		3S4YR-SBR
Recommended card type	Magnetic card	ISO 7810, 7811/1-5, 7812, 7813
Recording method		FM decoding (F2F)
Card feeding speed		10 to 100 cm/sec (4 to 39 in/sec)
Service life/magnetic head	Single track	300,000 passes min.
	Double track	300,000 passes min.
Operating power supply		5 VDC ± 10%
Current consumption	Single track	25 mA max.
	Double track	50 mA max.

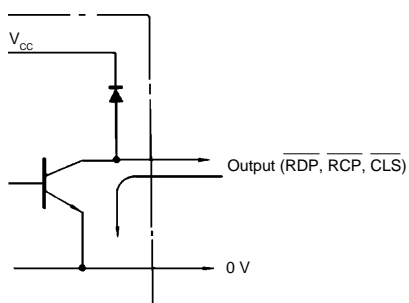
Specifications continued on next page

Specifications, continued

Mounting location	Anywhere not directly subject to water drops or sunlight.	
Ambient temperature	Operation	-10° to 55°C (14° to 131°F)
	Storage	-20° to 70°C (-4° to 158°F)
Ambient humidity	Operation	10% to 95% RH without condensation
	Storage	10% to 95% RH
Vibration	10 to 55 Hz, 2 mm double amplitude, for 30 minutes in each of X, Y, and Z directions.	
Shock	300 m/sec ² (30 G) in each of X, Y, and Z directions	
Dimensions	87L x 60W x 21.5H mm (3.43L x 2.36W x 0.85H in)	
Weight	Approx. 50 g (1.8 oz)	

Engineering Data

■ OUTPUT CIRCUIT DIAGRAM



Output signal levels

$$V_{OL} = 0.4 \text{ V at } 16 \text{ mA}$$

$$V_{CC} = 5.5 \text{ at } 2 \text{ mA}$$

■ I/O INFORMATION

3S4YR-SBR 3,4,5-20 Connector

10-pin JAE single-pin header part number IL-10P-S3FP2-1.
Connector JAE part number IL-10S-S3L-N.

Pin #	Signal	Input/Output	Description
1	NC	—	Not connected
2	$\overline{\text{RDP}}$	Output	Read data
3	$\overline{\text{RCP}}$	Output	Read clock
4	$\overline{\text{CLS}}$	Output	Card load
5	SW1-COM	Output	Card detection for rear
6	SW1-NO	Input	Card detection for rear
7	SW2-COM	Output	Card detection for front
8	SW2-NO	Input	Card detection for front
9	5 VDC	—	V_{CC}
10	0 V	—	Ground

3S4YR-SBR 6,7-20 Connector

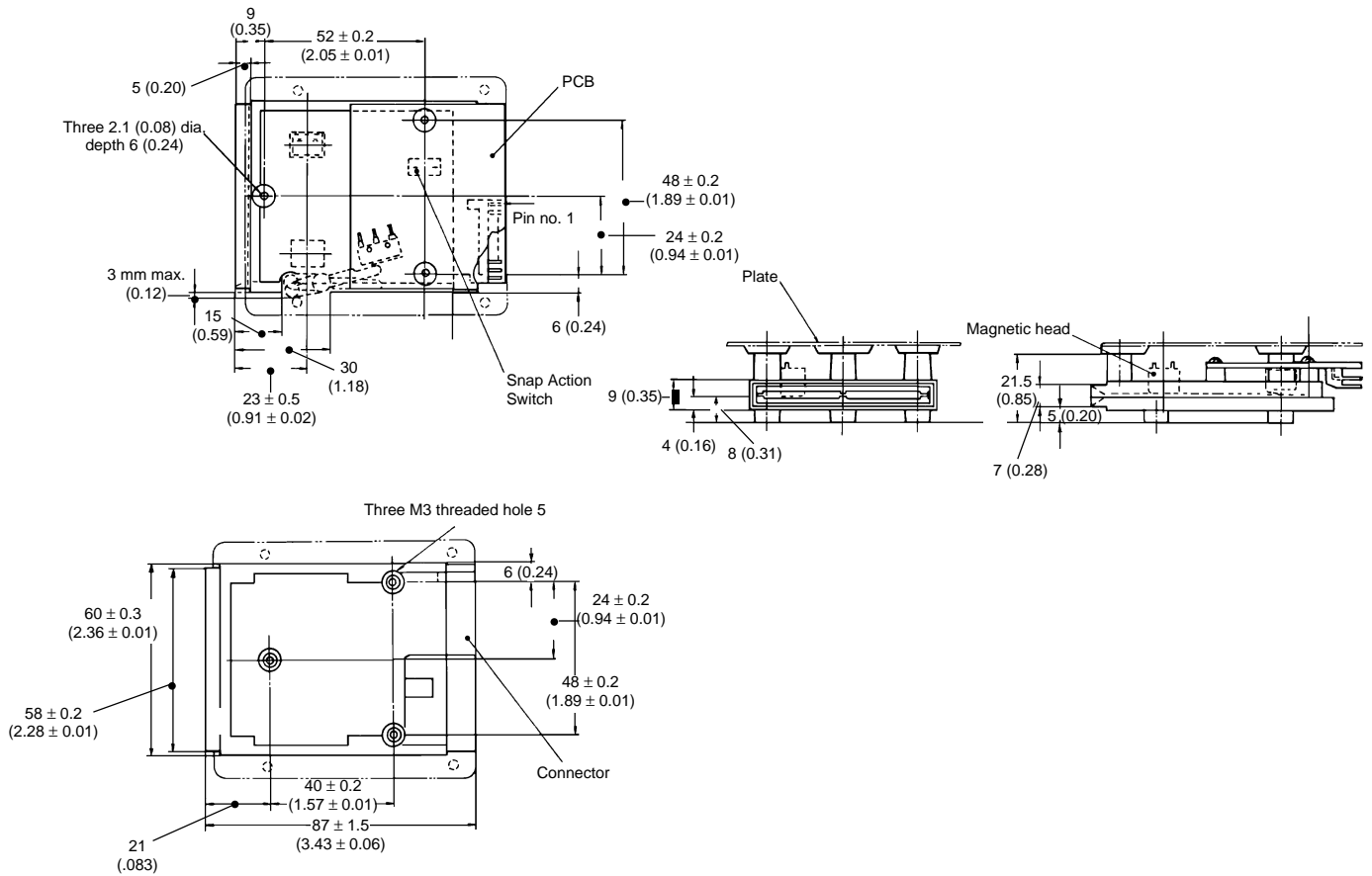
12-pin JAE angle pin header part number IL-12P-S3FP2-1.
Connector JAE part number IL-12S-S3L-N.

Pin #	Signal	Input/Output	Description
1	$\overline{\text{RDP1}}$	Output	Read data, track 1 or 3
2	$\overline{\text{RCP1}}$	Output	Read clock, track 1 or 3
3	$\overline{\text{CLS1}}$	Output	Card load, track 1 or 3
4	$\overline{\text{RDP2}}$	Output	Read data, track 2
5	$\overline{\text{RCP2}}$	Output	Read clock, track 2
6	$\overline{\text{CLS2}}$	Output	Card load, track 2
7	SW1-COM	Output	Card detection for rear
8	SW1-NO	Input	Card detection for rear
9	SW2-COM	Output	Card detection for front
10	SW2-NO	Input	Card detection for front
11	5 VDC	—	V_{CC}
12	0 V	—	Ground

Dimensions

Unit: mm (inch)

■ 3S4YR-SBR



Note: Unless otherwise indicated, tolerance is ±0.3.

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

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