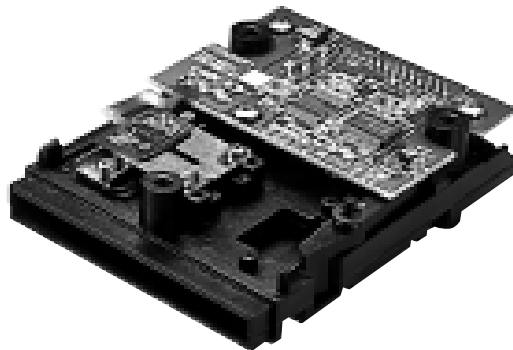


Compact, Highly Reliable Insert Reader  
Reads 62% of Magnetic Track

- Effective strip length of 46.6 mm max.
- Microswitches incorporated for card detection
- Wide operating temperature range
- Low power CMOS technology
- Current save mode
- TTL-compatible interface (clock & data)



## Ordering Information

Magnetic Tracks Supported (R, R/W)										
1	2	3	Center	JIS II	IC Contact	Interface	Cable	Cover	Color	Part Number
—	—	—	—	R	No	TTL	No	No	Black	<b>3S4YR-SBR2N-20</b>
—	R	—	—	—	No	TTL	No	No	Black	<b>3S4YR-SBR4N-20</b>
—	—	R	—	—	No	TTL	No	No	Black	<b>3S4YR-SBR5N-20</b>

Note: Consult the *IC Card Basics* section of this catalog for IC contact descriptions.

## TYPICAL APPLICATIONS

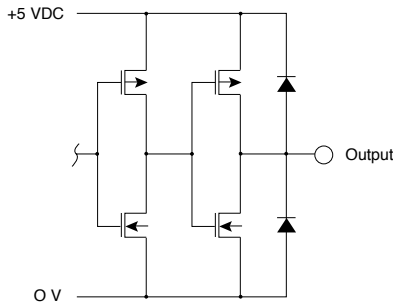
- Access Control
- Remote Terminals for Computers
- Electronic Locks
- ID Card Checkers
- Time and Attendance
- Telephones
- Vending
- Gaming Machines

## Specifications

Part number	3S4YR-SBR-N	
Recommended card type	Magnetic head	ISO 7810, 7811/1-5, 7812, 7813.
Card feeding speed	10 to 100 cm/sec (4 to 39 in/sec)	
Service life	Magnetic head	300,000 passes (one round trip)
	PCB	50,000 hours
Operating power supply	5 VDC $\pm$ 10%	
Current consumption	Operation	5 mA max., 3 mA mean
	Standby	1.5 mA max., 1 mA mean stand by mode available with CSV
Mounting location	Indoors away from wind, rain and sunlight.	
Ambient temperature	Operation	-10° to 55°C (14° to 131°F)
	Storage	-30° to 70°C (-22° to 158°F)
Ambient humidity	Operation	10% to 95% RH without condensation
	Storage	10% to 95% RH without condensation
Vibration	10 to 55 Hz, 2 mm double amplitude, for 30 minutes in X, Y, and Z directions.	
Shock	Storage	300 m/sec <sup>2</sup> (30 G) three times in each of X, Y, and Z directions for a total of 18 times.
Dimensions	78L x 60W x 21.5H mm (3.07L x 2.36W x 0.85H in)	
Weight	50 g (1.8 oz)	

# Engineering Data

## OUTPUT CIRCUIT DIAGRAM



### Output signal levels:

$V_{OL} = 0.4 \text{ V at } 4 \text{ mA}$

$V_{OH} = 3.5 \text{ V at } 1 \text{ mA}$

## I/O INFORMATION

### 3S4YR-SBR4N-20

10-pin JAE angle-pin header part number IL-S-10P-S2L2-EF.

Suitable Connector JAE part number IL-S-10S-S2C2-S (Socket housing)

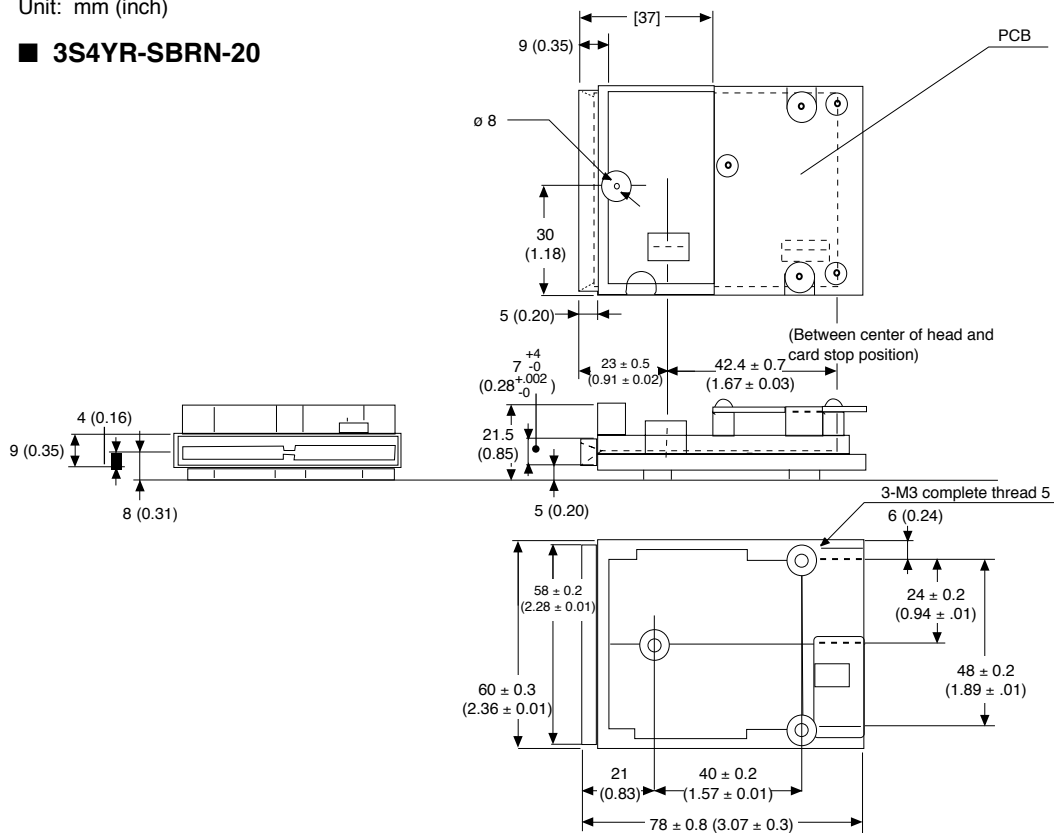
IL-S-C2-S-1000 (Socket contact)

Pin #	Signal	Input/Output	Description
1	RDP	Output	Read data
2	RCP	Output	Read clock
3	CLS	Output	Card load
4	CLS	Input	Current Save
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

## Dimensions

Unit: mm (inch)

### 3S4YR-SBRN-20



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CAT. No. IW-01

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