



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!



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Compact Insert Reader with Magnetic and IC Card Interface

- Ideally suited for applications using hybrid magnetic stripe and IC cards
- Landing-style IC contact supports both ISO and CP8 chip contact locations
- Red and green LEDs for operation status indication
- Solenoid-controlled IC card release mechanism
- Configurations available to read on card push or pull
- TTL-compatible interface



Ordering Information

Magnetic Tracks Supported (R, R/W)					IC Contact	Interface	Mag Read Direction	Solenoid	Cover	Cable	Color	Part Number
1	2	3	Center	JIS II								
—	—	—	—	—	ISO 7816	TTL	—	Yes	No	No	Black	3S4YR-SGR0J
R	R	R	—	—	ISO 7816	TTL	Push	Yes	No	No	Black	3S4YR-SGR1J
R	R	R	—	—	ISO 7816, CP8	TTL	Push	Yes	No	No	Black	3S4YR-SGR1X
R	R	R	—	—	—	TTL	Push/pull	No	No	No	Black	3S4YR-SGR1N
—	R	—	—	—	ISO 7816	TTL	Push	Yes	No	No	Black	3S4YR-SGR4J
—	R	—	—	—	—	TTL	Push/pull	No	No	No	Black	3S4YR-SGR4N
R	R	—	—	—	ISO 7816	TTL	Push	Yes	No	No	Black	3S4YR-SGR6J
R	R	—	—	—	—	TTL	Push/pull	No	No	No	Black	3S4YR-SGR6N
—	R	R	—	—	ISO 7816	TTL	Push	Yes	No	No	Black	3S4YR-SGR7J
—	R	R	—	—	—	TTL	Push/pull	No	No	No	Black	3S4YR-SGR7N

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

■ TYPICAL APPLICATIONS

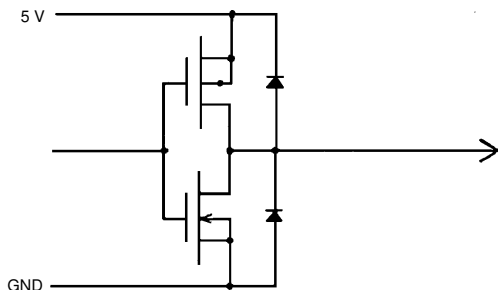
- Remote Terminals for Computers
- Credit Card Readers
- ID Card Checkers
- Electronic Locks
- Automatic Gate Machines
- POS Terminals
- ATMs
- Gas Pump Control
- Vending Machines
- Pre-Paid Systems
- Kiosks

Specifications

Part number		3S4YR-SGR (except 0J)	3S4YR-SGR0J
Recommended card type	Magnetic card	ISO 7810 - 7813	
	IC card	ISO 7816/1-2	
Service life	Mag head	300,000 passes (preliminary)	
	IC contact	500,000 passes (preliminary)	
Operating power supply	5 VDC ± 5%		
Card feed speed	100 to 800 mm/sec.		
Current consumption	2.5 A max. (during solenoid release), 100 mA typ.		
Mounting location	Indoors — away from wind, rain, sunlight, and dust		
Ambient temperature	0° to 45°C (32° to 113°F)		
Ambient humidity	Operation	30% to 85% RH without condensation and frost formation	
Vibration	10-150 Hz, single vibration width of 0.15 mm or on acceleration of 2 G (19.6 m/s ²), whichever is smaller		
Shock	20 G (196 m/s ²) in X, Y, and Z directions, respectively		
Dimensions	126L x 76W x 30H mm (4.96L x 2.99W x 1.18H in)		126L x 76W x 25H mm (4.96L x 2.99W x 0.98H in)
Weight	Approx. 100 g (3.5 oz)		

Engineering Data

■ I/O INFORMATION



Output signal levels

$V_{OL} = 0.4 \text{ V at } 5 \text{ mA}$
 $V_{OH} = 2.8 \text{ at } 0.1 \text{ mA}$

■ I/O INFORMATION

3S4YR-SGR

7626-5002SC (3M:26 pin), MIL-C-83503A conformed.

Pin #	Signal	Input/Output	Description
1	$\overline{RDT1}$	Output	Read data, track 1
2	$\overline{RCL1}$	Output	Read clock, track 1
3	$\overline{RDT2}$	Output	Read data, track 2
4	$\overline{RCL2}$	Output	Read clock, track 2
5	$\overline{RDT3}$	Output	Read data, track 3
6	$\overline{RCL3}$	Output	Read clock, track 3
7	$\overline{P1}$	Output	Card detection
8	$\overline{P2}$	Output	Card insertion completed
9	\overline{SLN}	Input	Solenoid ON
10	$\overline{LED 1}$	Input	LED1 (Red) ON
11	$\overline{LED 2}$	Input	LED 2 (Green) ON
12	\overline{CLS}	Output	Magnetic card loading
13	IGND	◆	IC contact C5

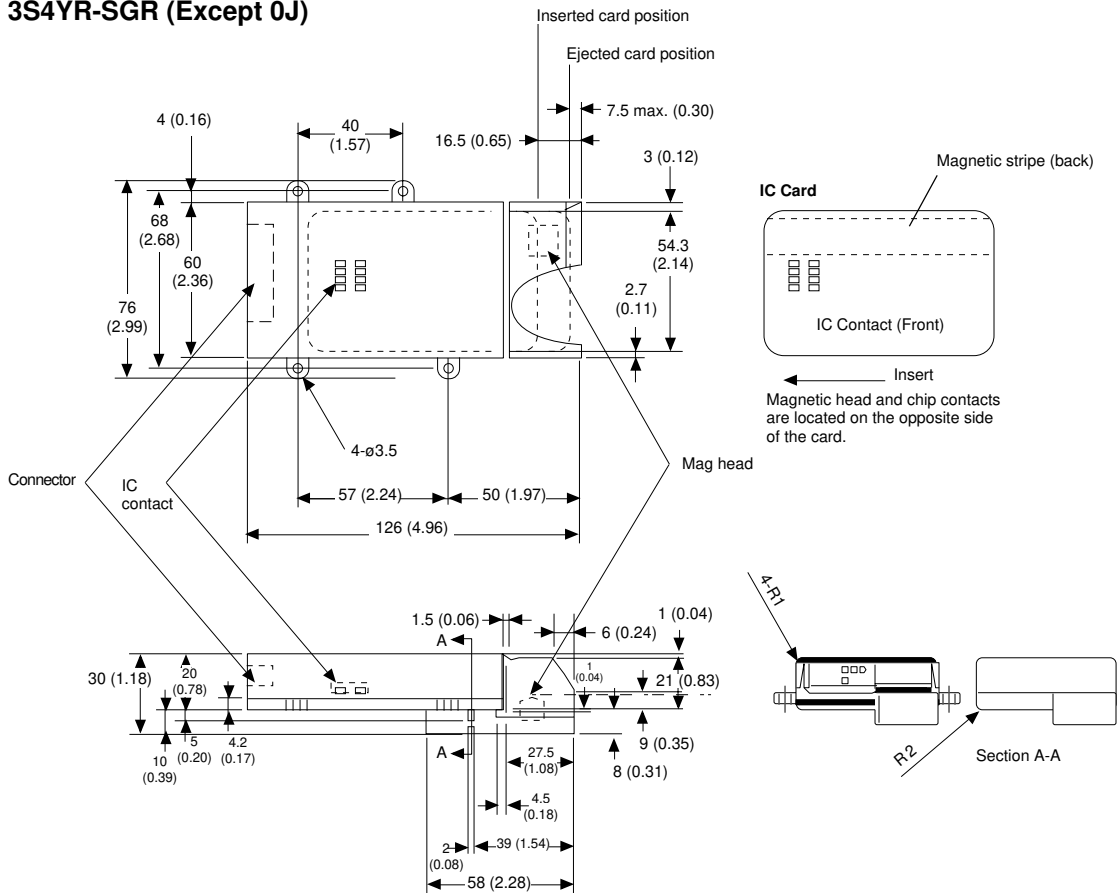
Pin #	Signal	Input/Output	Description
14	IVCC	◆	IC contact C1
15	IVPP	◆	IC contact C6
16	IRST	◆	IC contact C2
17	IDATA	◆	IC contact C7
18	ICLK	◆	IC contact C3
19	IRFV2	◆	IC contact C8
20	IRFV1	◆	IC contact C4
21	5VS	—	Power for solenoid
22	5VS	—	Power for solenoid
23	5V	—	Power for logic
24	0V	—	Ground
25	0V	—	Ground
26	0V	—	Ground

◆ = Direct IC Contact

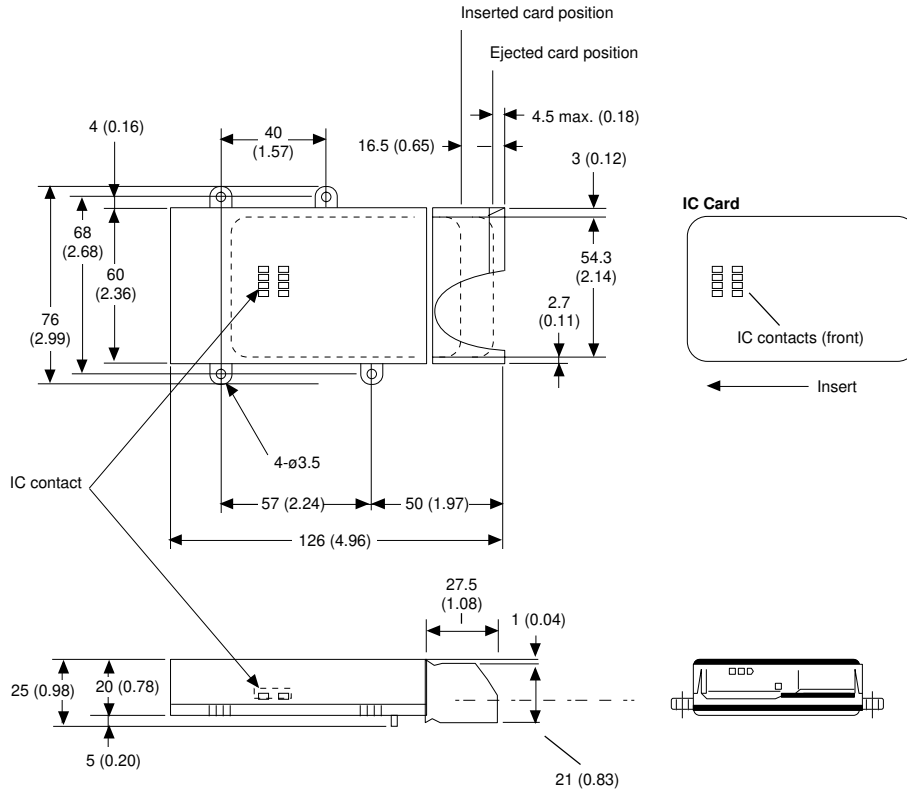
Dimensions

Unit: mm (inch)

■ 3S4YR-SGR (Except 0J)



■ 3S4YR-SGR0J



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

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