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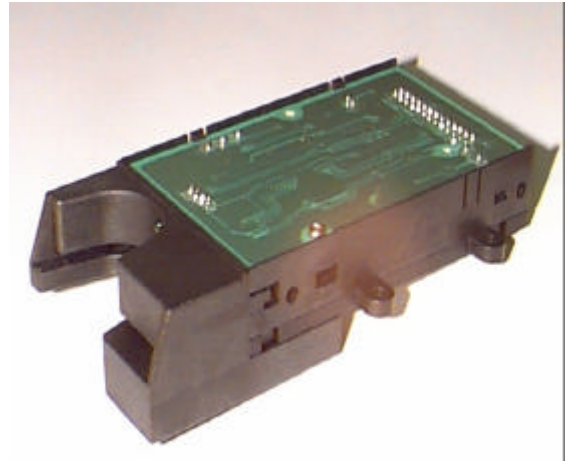
## Hybrid Magnetic / IC Card Reader

**3S4YR-SGR**

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### Compact Insert Reader with Magnetic and IC Card Interface

- Ideally suited for applications using hybrid magnetic stripe and IC cards (such as EMV).
- Supports both ISO and CP8 chip contact locations.
- Red and green LEDs for operation indicator.
- Solenoid-controlled IC card locking mechanism.
- TTL interface.
- Also available with RS232 and housing.



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## Ordering Information

| Magnetic tracks supported (R,RW) |     |     |        |        | IC Contact | Mag Read Direction | Solenoid | Colour | Part Number |
|----------------------------------|-----|-----|--------|--------|------------|--------------------|----------|--------|-------------|
| 1                                | 2   | 3   | Center | JIS II |            |                    |          |        |             |
| ---                              | --- | --- | ---    | ---    | J-style    | ---                | Yes      | Black  | 3S4YR-SGR0J |
| R                                | R   | R   | ---    | ---    | J-style    | Push/pull          | Yes      | Black  | 3S4YR-SGR1J |
| ---                              | R   | --- | ---    | ---    | J-style    | Push/pull          | Yes      | Black  | 3S4YR-      |

|     |     |     |     |     |         |           |     |       |                 |
|-----|-----|-----|-----|-----|---------|-----------|-----|-------|-----------------|
|     |     |     |     |     |         |           |     |       | SGR4J           |
| R   | R   | R   | --- | --- | ---     | Push/pull | No  | Black | 3S4YR-<br>SGR1N |
| --- | R   | --- | --- | --- | ---     | Push/pull | No  | Black | 3S4YR-<br>SGR4N |
| R   | --- | --- | --- | --- | J-style | Push/pull | Yes | Black | 3S4YR-<br>SGR3J |
| R   | --- | --- | --- | --- | ---     | Push/pull | No  | Black | 3S4YR-<br>SGR3N |
| --- | --- | R   | --- | --- | J-style | Push/pull | Yes | Black | 3S4YR-<br>SGR5J |
| --- | --- | R   | --- | --- | ---     | Push/pull | No  | Black | 3S4YR-<br>SGR5N |
| R   | R   | --- | --- | --- | J-style | Push/pull | Yes | Black | 3S4YR-<br>SGR6J |
| R   | R   | --- | --- | --- | ---     | Push/pull | No  | Black | 3S4YR-<br>SGR6N |
| --- | R   | R   | --- | --- | J-style | Push/pull | Yes | Black | 3S4YR-<br>SGR7J |
| --- | R   | R   | --- | --- | ---     | Push/pull | No  | Black | 3S4YR-<br>SGR7N |

## Specifications

|                                  |                              |
|----------------------------------|------------------------------|
| <b>Part number</b>               | 3S4YR-SGR                    |
| <b>Service life (Mag Head)</b>   | 300,000 passes (preliminary) |
| <b>Service life (IC contact)</b> | 500,000 passes (preliminary) |
| <b>Operating Power Supply</b>    | +5 VDC&plusmn;5%             |
| <b>Current Consumption</b>       | 2.5 A max.                   |

|                                     |  |
|-------------------------------------|--|
| <b>Mounting Location</b>            | Indoors away from wind, rain, sunlight, and dust       |
| <b>Ambient Temperature</b>          | 0°C to 45°C  |
| <b>Ambient Humidity (Operation)</b> | 30% to 85% RH without condensation and frost formation |
| <b>Vibration</b>                    | To be determined                                       |
| <b>Shock</b>                        | To be determined                                       |
| <b>Dimensions</b>                   | To be determined                                       |
| <b>Weight</b>                       | To be determined                                       |

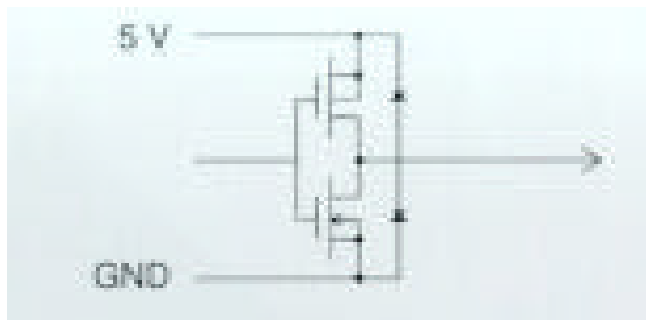
## Engineering Data

### ■ I/O Information

#### **Output signal levels**

VOL = 0.4 V at 5 mA

VOL = 2.8 V at 0.1 mA



**3S4YR-SGR**

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

| Pin # | Signal | Input/Output | Description                 | Pin # | Signal | Input/Output | Description            |
|-------|--------|--------------|-----------------------------|-------|--------|--------------|------------------------|
| 1     | RDT1   | Output       | Read data, track 1          | 14    | C1     | *            | IC Contact C1<br>IVCC  |
| 2     | RCL1   | Output       | Read clock, track 1         | 15    | C6     | *            | IC Contact C6<br>IVPP  |
| 3     | RDT2   | Output       | Read data, track 2          | 16    | C2     | *            | IC Contact C2<br>IRST  |
| 4     | RCL2   | Output       | Read clock, track 2         | 17    | C7     | *            | IC Contact C7<br>IDATA |
| 5     | RDT3   | Output       | Read data, track 3          | 18    | C3     | *            | IC Contact C3<br>ICLK  |
| 6     | RCL3   | Output       | Read clock, track 3         | 19    | C8     | *            | IC Contact C8<br>IRFV2 |
| 7     | P1     | Output       | Card Detection              | 20    | C4     | *            | IC Contact C4<br>IRFV1 |
| 8     | P2     | Output       | Card Insertion<br>Completed | 21    | 5VS    | ---          | Power for Solenoid     |
| 9     | SLN    | Input        | Solenoid ON                 | 22    | 5VS    | ---          | Power for Solenoid     |
| 10    | LED1   | Input        | LED1 (Red) ON               | 23    | 5V     | ---          | Power for logic        |
| 11    | LED2   | Input        | LED2 (Green) ON             | 24    | 0V     | ---          | Ground                 |
| 12    | CLS    | Output       | Magnetic card loading       | 25    | 0V     | ---          | Ground                 |
| 13    | C5     | *            | IC Contact C5 IGND          | 26    | 0V     | ---          | Ground                 |

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## Application Examples

■ 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