

## PUBLIC PRODUCT DATASHEET

# High-end sensor applications

MRS12 series Reed Proximity Switch sample V2.0 is part of the Magnetic Sensor / Reed Switch range from SHR MiRelay. This English public datasheet has been rebuilt under the current SHR AUTOSENSOR TECH LIMITED identity for customer selection, sample purchase and RFQ support.

<b>Product Family</b> Magnetic Sensor / Reed Switch	<b>Model</b> MRS12 series Reed Proximity Switch sample V2.0	<b>Purchase Path</b> Sample order or RFQ confirmation
<b>Manufacturer</b> SHR AUTOSENSOR TECH LIMITED	<b>Website</b> www.reed-relay.com	<b>Sales Contact</b> sales@reed-relay.com
<b>Contact Form</b> 1A: 1 Form A; 1B: 1 Form B; 1C: 1 Form C	<b>Contact Resistance</b> (@0.5V&50mA) mΩ 150 150 150 150	<b>Insulation Resistance</b> Suitable for low power operation
<b>Release Time</b> 0.05 0.1 0.05 1.5	<b>Operating Temperature</b> erature deg C -30+80 -40+80 -30+80 -30+80	<b>Storage Temperature</b> erature deg C -40+85 -40+85 -40+85 -40+85

## Key Features

- Output reliable contact switch
- High-end sensor applications
- High Insulation resistance
- Suitable for low power operation
- Custom Design, conforming to Rohs directive

## Technical Specifications

Parameter	Value
Contact Form	1A: 1 Form A; 1B: 1 Form B; 1C: 1 Form C
Contact Resistance	(@0.5V&50mA) mΩ 150 150 150 150
Insulation Resistance	Suitable for low power operation
Release Time	0.05 0.1 0.05 1.5
Operating Temperature	erature deg C -30+80 -40+80 -30+80 -30+80
Storage Temperature	erature deg C -40+85 -40+85 -40+85 -40+85

## Specification Notes

MRS12 Series

Reed Proximity Switch

1 Feature

Output reliable contact switch

High-end sensor applications

High Insulation resistance

Suitable for low power operation

Custom Design, conforming to Rohs directive

## 2 Performance Data

Model / A(NO) B(NC)/C(SPDT)

Rated Power(max.) W 10 10 (HV) 100 10

Switching Voltage(Max DC/Peak AC) V 180 AC 260/DC 200 1000 175

Switching Current(Max DC/Peak AC) A 0.5 AC 0.3/DC 0.4 1.0 0.5

Carry current(max.) A 1.25 1.4 2.5 1.0

Contact Resistance(@0.5V&50mA) mΩ 150 150 150 150

Breakdown Voltage VDC 250 400 1500 200

Insulation Resistance(Rh<45%,100V Test Voltage) Ω 1010 1010 1010 109

Operating Time(max.) ms 0.7 0.7 1.1 0.7

Release Time(max.) ms 0.05 0.1 0.05 1.5

Capacitance(typ.) pF 0.3 0.3 0.5 1.5

Vibration Resistance G 20 20 20 20

Shock Resistance(1/2 sine wave duration 11ms) G 30 30 30 30

Operating Temperature deg C -30-+80 -40-+80 -30-+80 -30-+80

Storage Temperature deg C -40-+85 -40-+85 -40-+85 -40-+85

## 3 Example of order marking

MRS12 - - - - (XXX)

① ② ③ ④ ⑤ ⑥

① Product model: MRS12

② Contact form: 1A: 1 Form A; 1B: 1 Form B; 1C: 1 Form C

③ Switch characteristic: 1: 10W; 2: 10W(HV); 3: 100W

④ Magnetic sensitivity(AT): A: 05-10; B: 10-15; C: 15-20 ; D: 20-25; E: 25-30; F: 30-35; G: 35-40

⑤ Cable Length(mm): 1: 200; 2: 300; 3: 500; 4: 1000; 5: 1500; 6: 2000; 7: 3000; 8: 5000

⑥ Special code: Customer special requirement

SHR SENSOR & RELAY

sales@reed-relay.com

## 4 Outline drawing

Layout

## 6 Precautions for use

- Avoid installation in areas directly exposed to rain, strong magnetic fields, or near objects with thermal radiation.
- Avoid excessive bulk density in use, which may affect the electrical characteristics of the switch.
- Excessive mechanical shock strength may change its magnetic sensitivity or even damage the switch.
- Use appropriate pin tightening or heat dissipation to prevent mechanical or thermal stress during welding.
- The minimum bending distance from the wire to the housing is 5mm, and dragging is prohibited.

Statement:

he document is for customer reference only.Specifications and parameters may be changed due to product improvement. For the specific parameters and performance of each product, please refer to the specifications and samples provided by SHR SHR MiRelay without further notice.

Performance parameters vary from application area to application area, so customers should choose the appropriate product according to the specific conditions of use, if in doubt, please contact SHR SHR SHR MiRelay Electronics Co. , Ltd. for

more technical support.

## Ordering & Engineering Support

For production projects, confirm coil voltage, contact form, switching voltage/current, load type, operating environment, target quantity and required approvals before release. Contact [sales@reed-relay.com](mailto:sales@reed-relay.com) or +86 137 6157 1029 for datasheet confirmation, sample availability and cross-reference support.

Address: Room 311, No. 18 Hangchuan Road, Pudong New District, Shanghai, China

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