

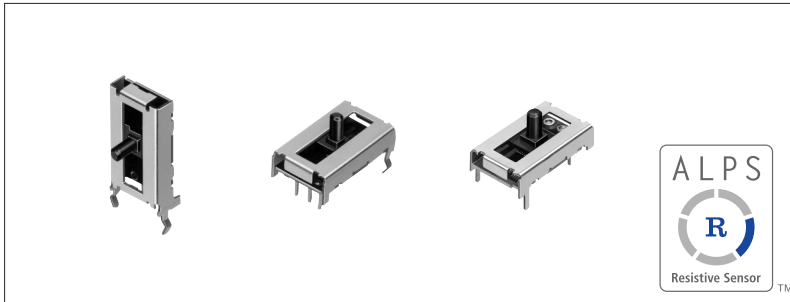
# Resistive Sensor Linear Type (Exclusively Used to Detect the Angle of Vehicle Head Lights)

RD7 Series



Exclusive for headlight angle detection with high accuracy and space-saving design.

- Magnetic Sensors
- Piezo Sensors
- Capacitive Sensor
- Resistive Sensors**



## Typical Specifications

Items	Specifications
Rated Voltage	12V DC
Operating force	2N max.
Operating life	100,000cycles
Operating temperature range	-40°C to +105°C

## Product Line

Travel (mm)	Mounting method	Total resistance (kΩ)	Rated voltage	Linearity	Minimum order unit (pcs.)	Model No.	Drawing No.
8	Vertical type	4.7	12V DC	±1%	4,000	RD708A029A	1
	Horizontal type	5			3,000	RD7081015A	2
9					3,600	RD7091008A	3
12	Vertical type	2.2			4,000	RD712A028A	1
	Horizontal type	10			3,600	RD7121008A	4

## Packing Specifications

### Tray

Product No.	Mounting method	Number of packages (pcs.)		Export package measurements (mm)
		1 case /Japan	1 case /export packing	
RD708	Vertical	2,000	4,000	363 × 527 × 215
	Horizontal	1,500	3,000	363 × 507 × 216
RD709		1,800	3,600	364 × 508 × 192
RD712	Vertical	2,000	4,000	363 × 527 × 215
	Horizontal	1,800	3,600	363 × 507 × 216

### Note

Please place purchase orders per minimum order unit N (integer).

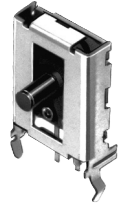
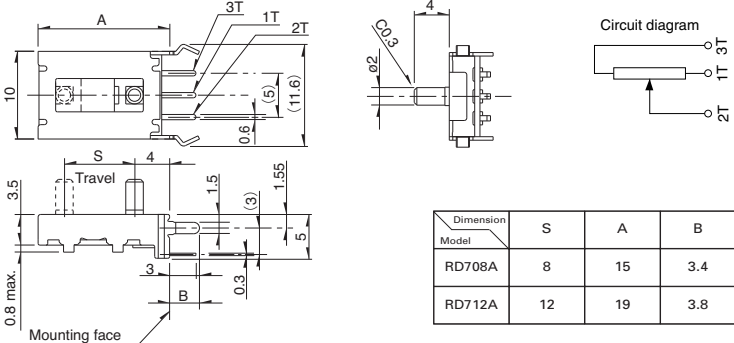
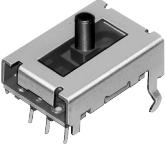
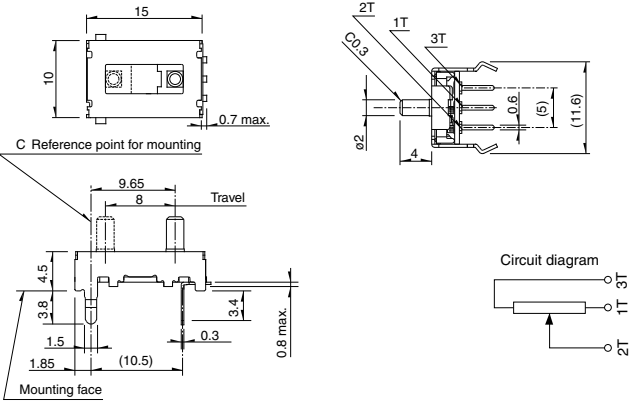

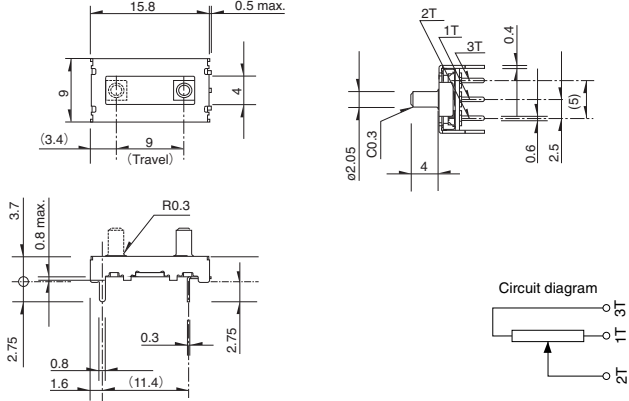
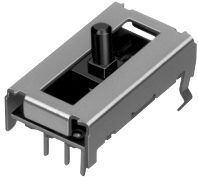
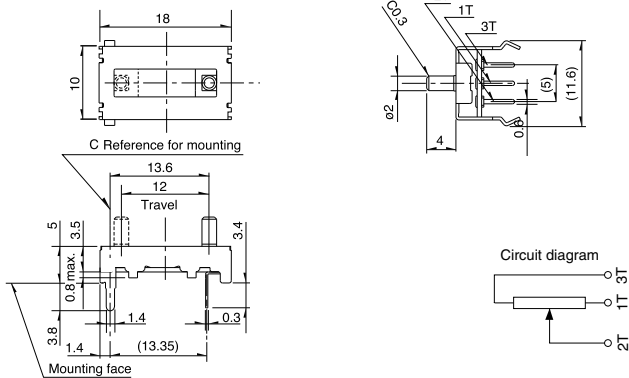
Refer to P.521 for product specifications.



Automotive Use

Dimensions

Unit:mm

No.	Photo	Style												
1	<p>RD708A RD712A</p> 	 <table border="1" data-bbox="1098 560 1404 676"> <thead> <tr> <th>Dimension Model</th> <th>S</th> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>RD708A</td> <td>8</td> <td>15</td> <td>3.4</td> </tr> <tr> <td>RD712A</td> <td>12</td> <td>19</td> <td>3.8</td> </tr> </tbody> </table>	Dimension Model	S	A	B	RD708A	8	15	3.4	RD712A	12	19	3.8
Dimension Model	S	A	B											
RD708A	8	15	3.4											
RD712A	12	19	3.8											
2	<p>RD7081</p> 													
3	<p>RD7091</p> 													
4	<p>RD7121</p> 													

Magnetic Sensors

Piezo Sensors

Capacitive Sensor

Resistive Sensors





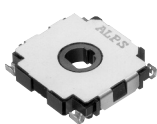

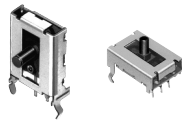
Automotive Use

Note

For linearity, various specifications will be available, depending on the applications. Please consult with us when placing your orders.

Refer to P.523 for cautions.

## Index for Functions

Type	Rotary Type			Linear Type		
Series	RDC40	RDC50	RDC80	RDC10	※RD7	
Photo						
Travel (mm)	_____			14mm (RDC1014) 22mm (RDC1022) 32mm (RDC1032) 47mm (RDC1047)	8mm (RD708) 9mm (RD709) 12mm (RD712)	
Mounting method	_____				Vertical   Horizontal	
Effective variable angle (°)	4680 (13 rotations)	320	330 (1-phase) 360 (2-phase)	_____		
Soldering	Manual soldering	_____				350°C max. 3s max.
	Dip soldering	_____	260°C, 4±1s	_____	260°C, 4±1s	
	Re-flow soldering	_____	Please see P.522		_____	
Operating temperature range	-30°C to +80°C	-40°C to +120°C		-30°C to +85°C	-40°C to +105°C	
Automotive use	●	●	●	●	●	
Mechanical performance	Operating force	_____			0.25N max.	2N max.
	Rotational torque	2mN·m max.		10mN·m max.	_____	
Electrical performance	Total resistance tolerance	±30%				±20%
	Linearity (%)	±1	±2	±3	±0.5	±1
	Rated Voltage (VDC)	5				12
Environmental test	Cold	-30±3°C for 240h	-40±3°C for 168h		-40±3°C for 240h	-40±3°C for 96h
	Dry heat	80±2°C for 240h	120±3°C for 168h		90±2°C for 240h	105±2°C for 96h
	Damp heat	60±2°C, 90 to 95%RH for 240h	60±2°C, 90 to 95%RH for 96h		60±2°C, 90 to 95%RH for 240h	40±2°C, 90 to 95%RH for 96h
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Magnetic Sensors  
Piezo Sensors  
Capacitive Sensor  
**Resistive Sensors**

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**Note**

1. ※The RD7 series are used to detect vehicle headlight angles.
2. ●marks in "Available for automotive use" indicate that all of the series products can work at the operating temperature range from -40°C to +85°C.

## Product Specifications

### Method for Regulating the Linearity

- Magnetic Sensors
- Piezo Sensors
- Capacitive Sensor
- Resistive Sensors**

