

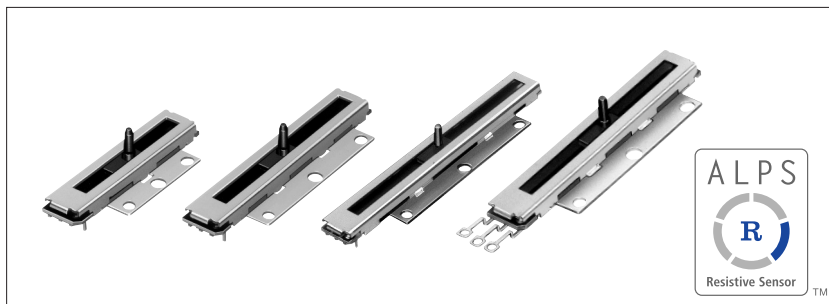
Resistive Sensor Linear Type

RDC10 Series



The high accuracy space saving design contributes to reduced weight and size of sets.

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



Typical Specifications

Items	Specifications
Operating life	200,000cycles
Total resistance	10kΩ
Operating temperature range	-30°C to +85°C

Product List

Travel (mm)	Linearity	Length of lever (mm)	Length of terminal (mm)	Minimum order unit (pcs.)	Model No.
14	±0.5%	4.5	2	4,800	RDC1014A09
22				4,200	RDC1022A05
32				1,800	RDC10320RB
47		4.4		2,000	RDC1047A03

Packing Specifications

Tray

Model No.	Number of packages (pcs.)		Export package measurements (mm)
	1 case /Japan	1 case /export packing	
RDC1014	2,400	4,800	374 × 508 × 272
RDC1022	2,100	4,200	374 × 508 × 302
RDC1032	900	1,800	540 × 360 × 205
RDC1047	1,000	2,000	374 × 508 × 272

Notes

1. Additional product specifications - referring to those not included in the above - are also available.
2. Please place purchase orders per minimum order unit N (integer).


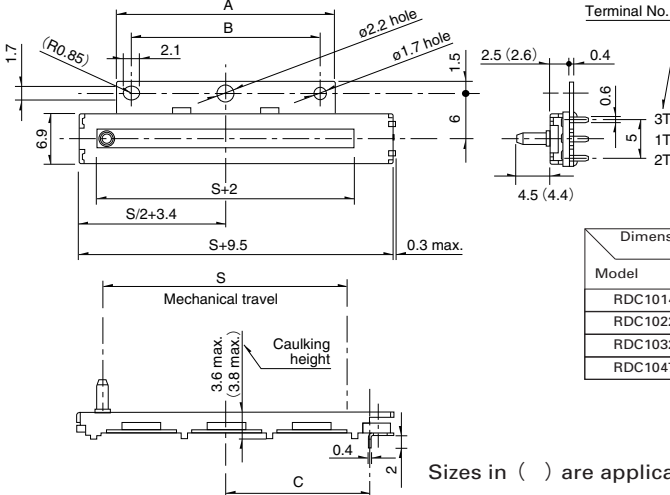
Refer to **P.518** for product varieties.
Refer to **P.521** for product specifications.



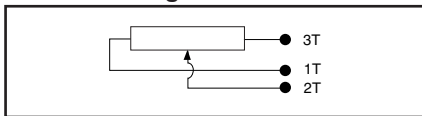
Automotive Use

Dimensions

Unit:mm

Photo	Style																									
	 <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Dimension</th> <th>S</th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>RDC1014</td> <td>14</td> <td>19</td> <td>15</td> <td>10</td> </tr> <tr> <td>RDC1022</td> <td>22</td> <td>19</td> <td>15</td> <td>14</td> </tr> <tr> <td>RDC1032</td> <td>32</td> <td>29</td> <td>25</td> <td>19</td> </tr> <tr> <td>RDC1047</td> <td>47</td> <td>37</td> <td>33</td> <td>26.5</td> </tr> </tbody> </table> <p style="text-align: right;">Sizes in () are applicable to RDC1047 only.</p>	Dimension	S	A	B	C	RDC1014	14	19	15	10	RDC1022	22	19	15	14	RDC1032	32	29	25	19	RDC1047	47	37	33	26.5
Dimension	S	A	B	C																						
RDC1014	14	19	15	10																						
RDC1022	22	19	15	14																						
RDC1032	32	29	25	19																						
RDC1047	47	37	33	26.5																						

Circuit Diagram



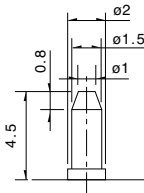
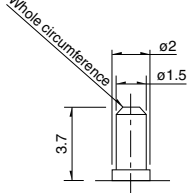
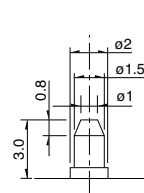
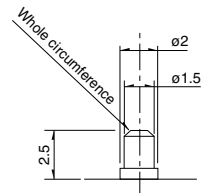
Product Varieties

In addition to the recommended products, the following specifications are also supported.

Lever Variety

* Sizes in () are applicable to RDC1047 only

Unit:mm

Length	4.5 (4.4)	3.7 (3.6)	3 (2.9)	2.5 (2.4)
Dimensions				

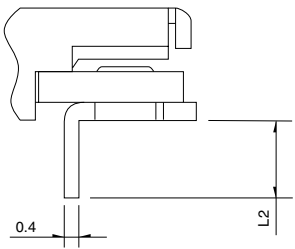
Terminal Variety

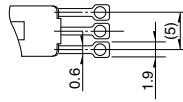
For printed wiring

Unit:mm

For lead wiring

Unit:mm

				
Length L2	1.5	2	4	5.5

				
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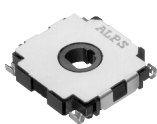



Note

Shows the specification recommended by Alps.

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



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**

