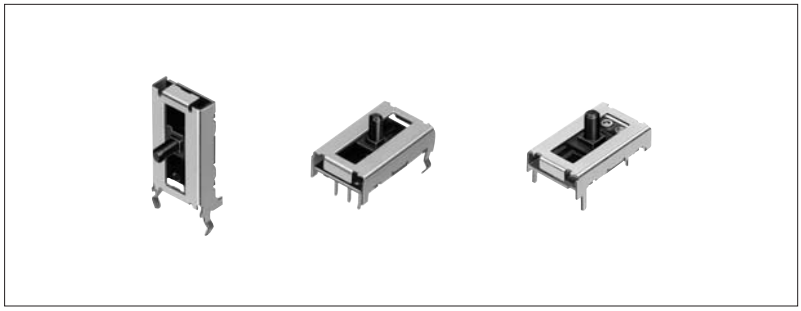
Linear Type (Exclusively Used to Detect The Angle of Vehicle Head Lights)

RD7 Series

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



Car Use | RoHS compliant | ALPS Resistive Sensor™

Features

- Advanced printing technology ensures high-precision linearity.
- Space saving design contribute to lighter weight and smaller size of the set.
- Operational in temperatures up to 105℃.

Applications

- Exclusively used to detect the angle of vehicle headlights

Product Line

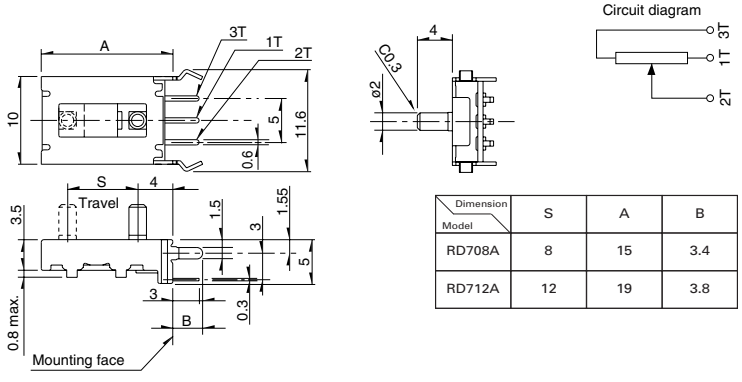
Travel (mm)	Mounting method	Total resistance (kΩ)	Rated voltage	Linearity	Model No.	Minimum Units Per Pack (pcs.)※	Drawing No.
8	Vertical type	4.7	12V DC	±1%	RD708A029A	2,000	1
	Horizontal type	5			RD7081015A	1,500	2
9					RD7091008A	1,800	3
12	Vertical type	2.2			RD712A028A	2,000	1
	Horizontal type	10			RD7121008A	1,800	4

Note

※ The minimum packing unit is the basic unit quantity of your order. Please place purchase orders in integer multiples of the minimum packing unit. Please conact us for export packaging details.

Dimensions

Unit:mm

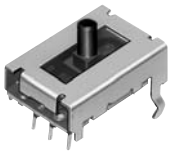
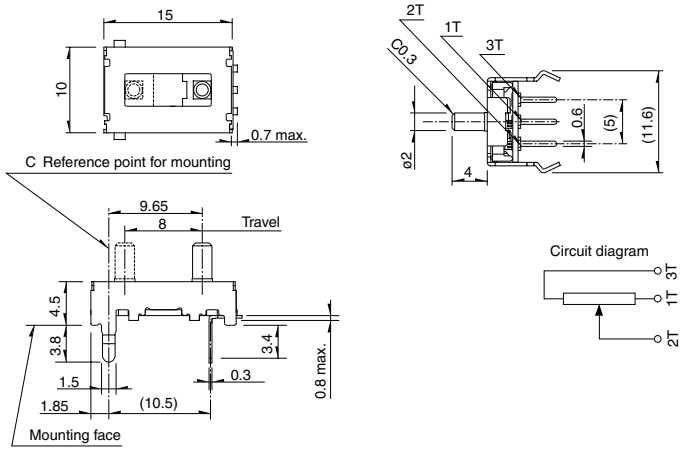
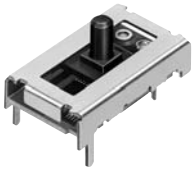
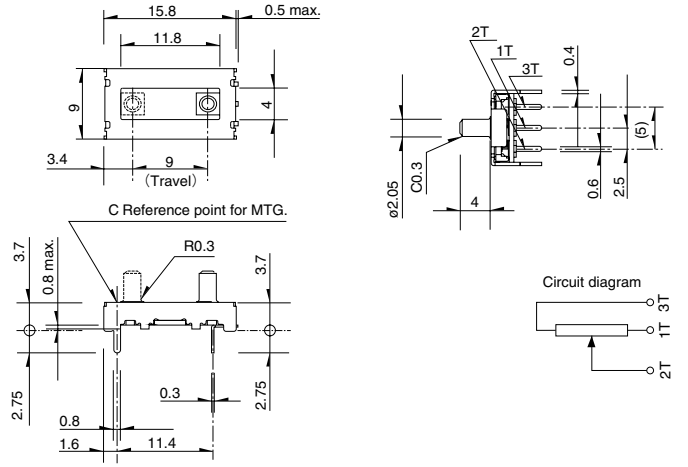
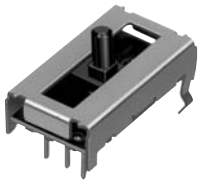
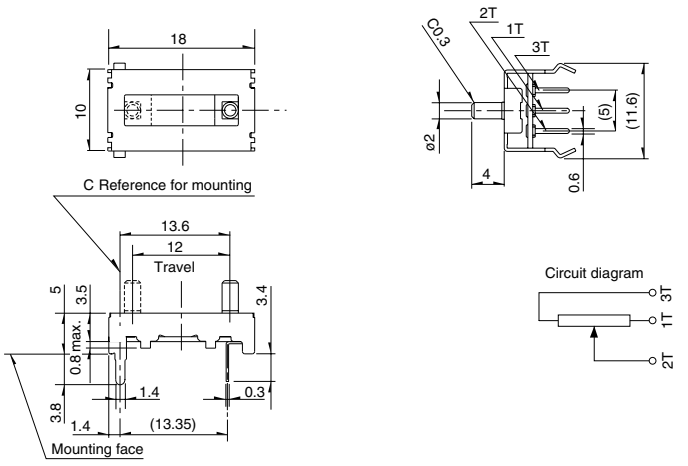
No.	Photo	Style
1	RD708A RD712A 	

Dimension / Model	S	A	B
RD708A	8	15	3.4
RD712A	12	19	3.8

For other product specifications, see **P.30**

Dimensions

Unit:mm

No.	Photo	Style
2	RD7081 	
3	RD7091 	
4	RD7121 	

Note

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

For further details , see **P.29**

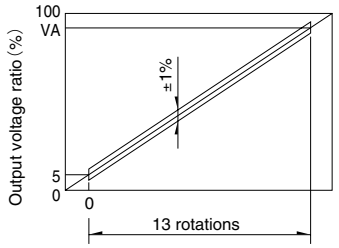
Product Specifications

Item \ Style / Model		Rotary type			Linear type	
		RDC40	RDC501/RDC502/RDC503/RDC506	RDC80	RDC10	RD7
Operating temperature range		−30℃ to +80℃	−40℃ to +120℃		−30℃ to +85℃	−40℃ to +105℃
Electric performance	Total resistance tolerance	±30%				±20%
	Resistance taper	Linear				
	Rated voltage	5V DC				12V DC
	Max. operating voltage	18V DC	16V DC		5V DC	18V DC
	Linearity	±1%	±2%	±3%	±0.5%	±1%
Mechanical performance	Effective variable range	13rotations	320°	330° (1-phase) 360° (2-phase)	S (travel) −2mm	S (travel)
	Rotational angle	——	(Without stopper)		——	
	Rotational torque	2mN·m max.		10mN·m max.		
	Operating force	——			0.25N max.	2N less.
Durability	100,000cycles	●	——	●	——	●
	200,000cycles	——			●	——
	1,000,000cycles	——	●	——		

Method for Regulating the Linearity

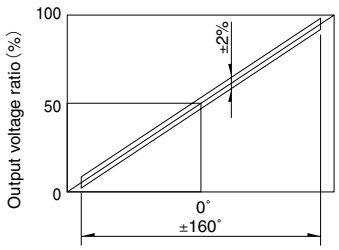
Model RDC40

1. Reference taper : 90%/13rotations
2. VA is measured output value



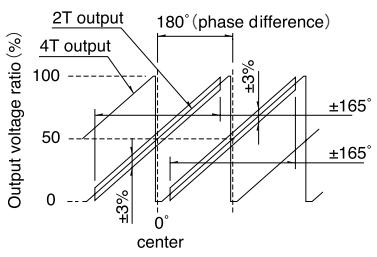
Model RDC50

1. Reference taper : 100%/333.3°
2. Index point is 50% output point



Model RDC80

1. Reference taper : 100%/340°
2. The center is in the configuration diagram condition



Model RDC10/RD7

With rated voltage applied between terminals 1 and 3, the straight line which connects the measured output values VB and VA at specified reference positions B and A is assumed to be an ideal straight line, so that deviation against the ideal straight line when the voltage applied between terminals 1 and 3 is assumed to be 100% can be expressed as a percentage.