

# RDCC0 Magnetic Rotary Type

Non-contact magnetic rotary sensor achieving high precision and long life



## Typical Specifications

Items	Specifications
Rated Voltage	5V DC
Operating life	10,000,000 cycles
Total resistance	0.3V to 4.3V
Operating temperature range	0°C to +50°C

## Product Line

Mounting method	Effective electrical angle	Linearity guarantee range	Linearity	Style of lever	Minimum order unit (pcs.)		Model No.
					Japan	Export	
Connector type	30°	±15°	±2%	Flat type	720	720	<b>RDCC010002</b>

## Packing Specifications

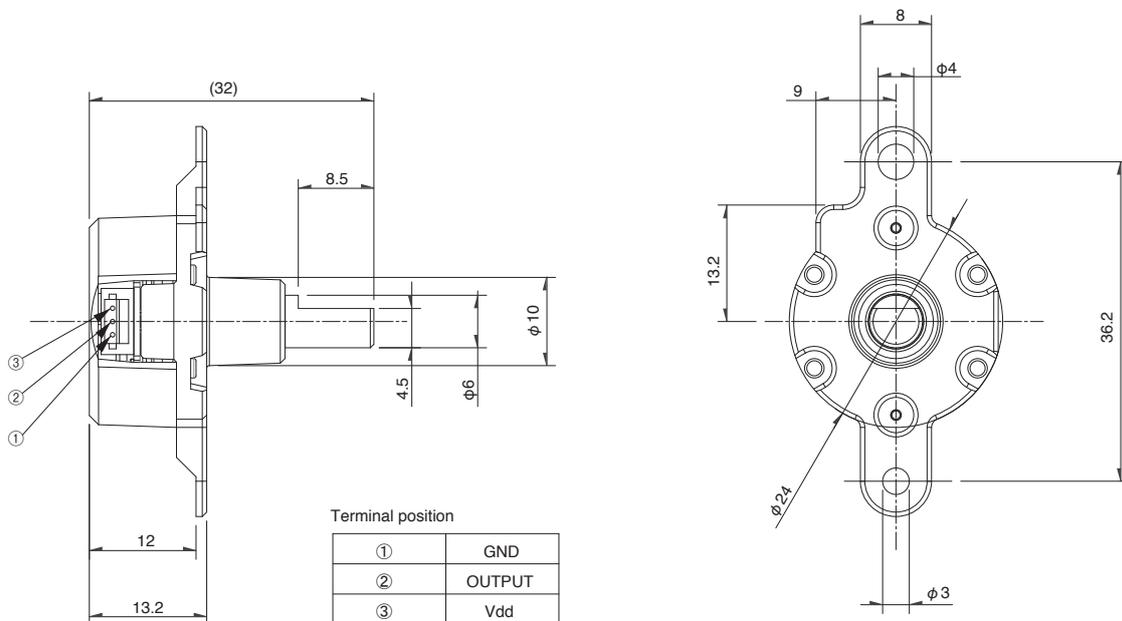
Tray

Number of packages (pcs.)		Export package measurements (mm)
1 case /Japan	1 case /export packing	
720	720	540×360×250

## Dimensions

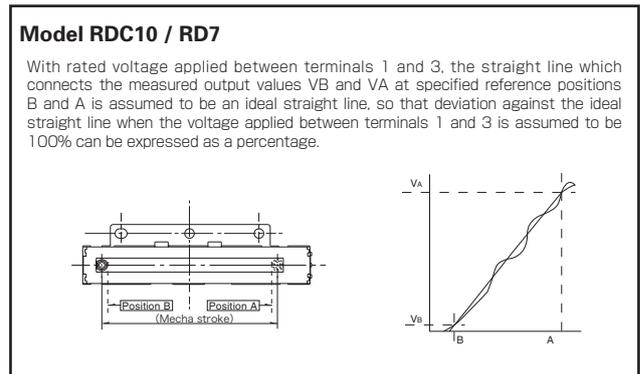
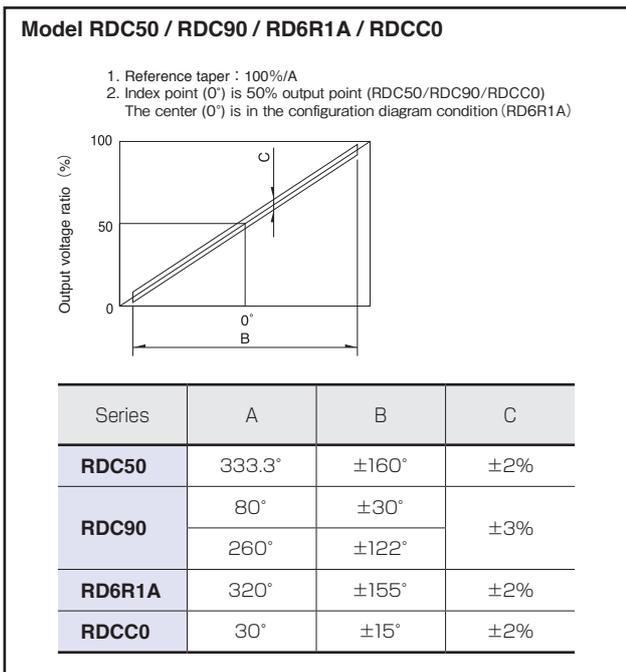
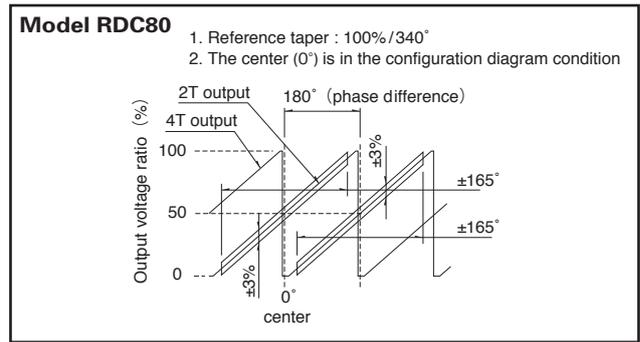
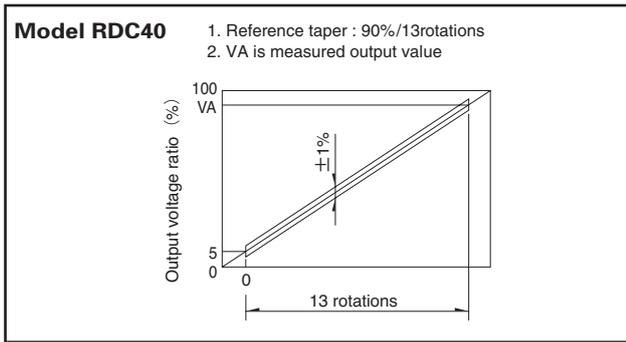
Unit:mm

Style



Refer to P.488 for product specifications.

## Method for Regulating the Linearity



## Resistive Position Sensors / Measurement and Test Methods

### Resistive Position Sensor

#### [Total Resistance]

The total resistance, with the shaft (lever) placed at the end of terminal 1 or 3, shall be determined by measuring the resistance between the resistor terminals 1 and 3 unless otherwise specified.

#### [Rating Voltage]

The rating voltage corresponding to the rated power shall be determined by the following equation. When the resulting rated voltage exceeds the maximum operating voltage of a specific resistor, the maximum operating voltage shall be taken as the rated voltage.

$$E = \sqrt{P \cdot R}$$

**E** : Rated voltage (V)  
**P** : Rated power (W)  
**R** : Total nominal resistance (Ω)

Resistive Position Sensors  
Rotary Type  
Linear Type

# Resistive Position Sensors

## List of Varieties

Type	Rotary Type					Magnetic Rotary Type	
Series	RDC40	RDC50	RDC90	RDC80	RD6R1A	RDCC0	
Photo							
Direction of lever	Horizontal	Vertical Horizontal	Vertical				
Effective electrical angle (°)	5,400 (15 rotations)	333.3	80,260	340 (1-phase) 360 (2-phase)	320	30	
Linearity guarantee range (°)	4,680 (13 rotations)	320	60,244	330 (1-phase) 360 (2-phase)	310	±15	
Travel	—	—	—	—	—	—	
Operating temperature range	−30°C to +80°C	−40°C to +120°C			−40°C to +85°C	0°C to +50°C	
Operating life	100,000 cycles	1,000,000 cycles	10,000,000 cycles	20,000 cycles	500,000 cycles	10,000,000 cycles	
Available for automotive use	●	●	●	●	●	—	
Life cycle (availability)							
Mechanical performance	Operating force	—	—	—	—	—	
	Rotational torque	1.96mN·m max.	2mN·m max.		10mN·m max.	100mN·m	5mN·m max.
Electrical performance	Total resistance tolerance	±30%				±20%	—
	Linearity (%)	±1	±2	±3		±2 (320°)	±2
	Rated voltage (V DC)	5					
Environmental performance	Cold	−30°C 240h	−40°C 168h			−40°C 240h	
	Dry heat	80°C 240h	120°C 168h			85°C 168h	85°C 240h
	Damp heat	60°C, 90 to 95%RH 240h	60°C, 90 to 95%RH 96h			80°C, 90 to 95%RH 96h	60°C, 90 to 95%RH 240h
Terminal style	Connector	Insertion / Reflow	Reflow		Connector		
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### Note

- Indicates applicability to all products in the series.

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