

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	RDCC010002

Packing Specifications

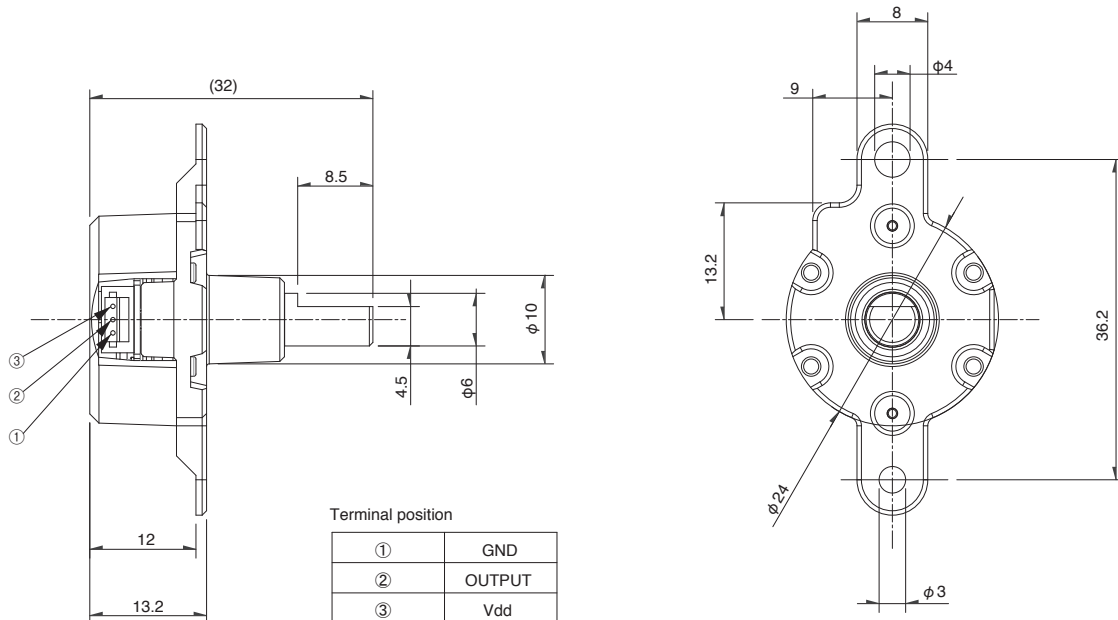
Tray

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

Dimensions

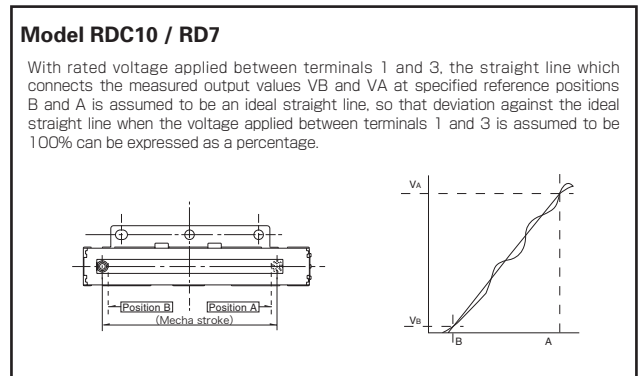
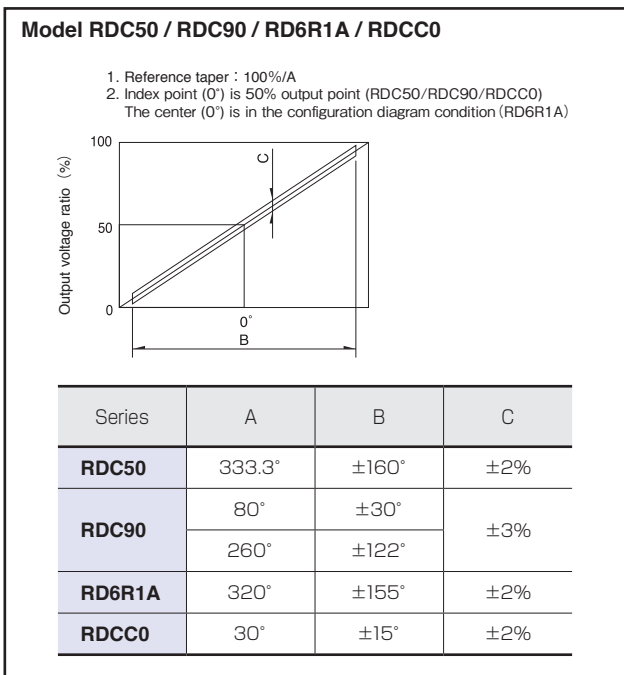
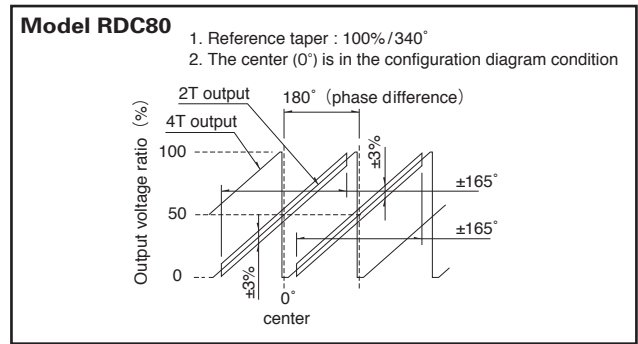
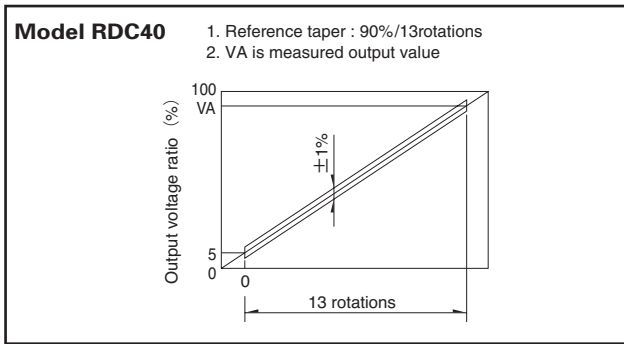
Unit:mm

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.

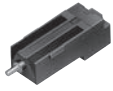











$$E = \sqrt{P \cdot R}$$

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.