Through Shaft Type (360° Rotation)

Through shaft type that enables output covering the whole 360-degree angle due to adoption of 2-phase output





■ Typical Specifications



Items	Specifications
Rated Voltage	5V DC
Operating life	20,000 cycles
Total resistance	10kΩ
Operating temperature range	-40°C to +120°C

Product Line

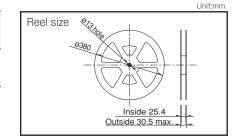
Mounting method	Linearity	Linearity	Through shaft	Minimum order unit (pcs.)		Model No.	
	guarantee range	Linearity	variation	Japan	Export	Model No.	
Reflow	330° (1-phase) 360° (2-phase)	±3%	φ4.05	1,600	1,600	RDC803101A	

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Packing Specifications

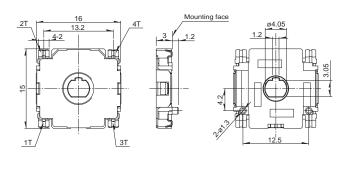
Taping

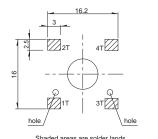
Number of packages (pcs.)			Tape width	Export package measurements	
1 reel	1 case /Japan	1 case /export packing	(mm)	(mm)	
800	1,600	1,600	24	401×401×110	



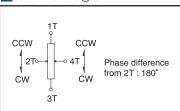
Dimensions

Unit:mm PC board mounting hole dimensions (Viewed from mounting side) Style





Circuit Diagram



Through Shaft Type Potentiometers List of Varieties

Туре		Through Shaft Type			
	Series	RDC80			
Photo					
Dir	ection of lever	Vertical			
Effective	e electrical angle (°)	340 (1-phase), 360 (2-phase)			
Linearity	guarantee range (°)	330 (1-phase), 360 (2-phase)			
Operating	g temperature range	−40°C to +120°C			
Operating life		20,000 cycles			
Available	e for automotive use	•			
Life c	cycle (availability)	★ 2			
Mechanical performance	Rotational torque	10mN·m max.			
	Total resistance tolerance	±30%			
Electrical performance	Linearity (%)	±3			
	Rated voltage (V DC)	5			
	Cold	−40°C 168h			
Environmental performance	Dry heat	120°C 168h			
	Damp heat	60°C, 90 to 95%RH 96h			
Т	erminal style	Reflow			
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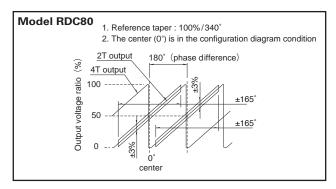
Note

Indicates applicability to all products in the series.



Through Shaft Type / Product Specifications

Method for Regulating the Linearity



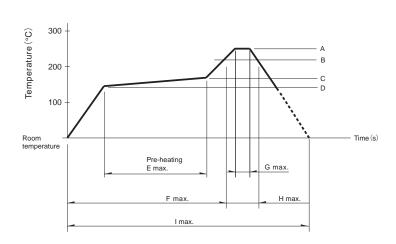
Through Shaft Type / Soldering Conditions

Reference for Manual Soldering

Series	Tip temperature	Soldering time	
RDC80	350±5℃	3 ⁺¹ 0s	

■ Example of Reflow Soldering Condition

- 1. Cleaning should not be attempted.
- 2. Type of solder to be used Use cream solder that contains 10 to 15 %wt flux.
- 3. Number of solder applications apply solder only once
- 4. Recommended reflow conditions



Series	А	В	С	D	Е	F	G	Н	I	No. of reflows
RDC80	250℃	_	180℃	150℃	90±30s	_	10±1s	_	_	1 time

Notes

- When using an infrared reflow oven, solder may not always be applied as intended.
 Be sure to use a hot air reflow oven or a type that uses infrared rays in combination with hot air.
- 2. The temperatures given above are the maximum temperatures at the terminals of the products when employing a hot air reflow method. The temperature of the PC board and the surface temperature of the products may vary greatly depending on the PC board material, its size and thickness. Ensure that the surface temperature of the products does not rise to 250°C or greater.
- 3. Conditions vary to some extent depending on the type of reflow bath used. Be sure to give due consideration to this prior to use.

