

Motor Driver (DC / Position Proportional Converter) | RN748A



The RN748A is a signal converter that receives a 4–20 mA_{dc} input signal from a controller and outputs a relay contact signal to drive a control motor with a built-in feedback potentiometer for position proportioning operation. Also, by setting the center of the angle of rotation and the proportional band for the input signal, split operation is possible.



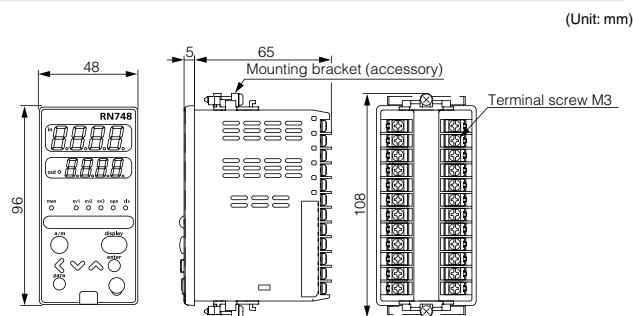
Specifications

Input	Input (IN)	Input type	4 to 20 mA _{dc}	
		Sampling time	100 ms	
		Indication accuracy	±0.1% FS ±1 digit (at 23±2 °C ambient temperature)	
		Input impedance	100 Ω or less	
	Digital input	Input type	Non-voltage contact or open collector	
		Allowable ON contact resistance	250 Ω or less	
		Allowable OFF contact resistance	100 kΩ or more	
		Allowable ON residual voltage	1.0 V or less	
		Terminal current (ON)	Approx. 7.5 mA (in case of short circuit), approx. 5.0 mA (at 250 Ω contact resistance)	
		Minimum hold time	200 ms or more	
Motor feedback potentiometer input	Allowable resistance	100 to 2500 Ω		
	Detection of line break	Displays "AL07"		
Output	Motor drive relay output	Contact rating	250 Vac, 8 A (resistive load)	
		Operating life	120,000 operations min.	
		Min. switching specification	24 V _{dc} 40 mA	
	Event relay output (1 to 3)	Contact rating	250 Vac / 30 V _{dc} 2A (resistive load)	
		Operating life	100,000 operations min.	
		Min. switching specification	5 V, 10 mA (reference value)	
Setting	Center of rotation angle	0.0 to 100.0%		
	Proportional band	0.1 to 999.9%		
	Dead zone	0.5 to 25.0%		
	Event for motor opening	High limit event: -199.9 to +999.9% Low limit event: -199.9 to +999.9%		
General specifications	Operating conditions	Ambient temperature	0 to 50 °C (gang-mounted: 0 to 40 °C)	
		Ambient humidity	10 to 90% RH (without condensation)	
		Rated power supply voltage	100 to 240 Vac 50/60 Hz	
		Power supply voltage range	85 to 264 Vac 50/60 Hz	
	Power consumption	12 VA or less		
	Weight	Approx. 250 g (including dedicated mounting bracket)		
Standards compliance	EN 61010-1, EN 61326			

Model No. configuration Ex.: RN748A0000

Basic model No.	Additional treatment	Description
RN748A00		DC/position proportional converter, motor driver (100 to 240 Vac, with motor drive relay output MFB, 3 event relay outputs, 3 digital inputs)
	00	No additional treatment
	D0	Inspection results included
	Y0	Traceability certificate included

External dimensions

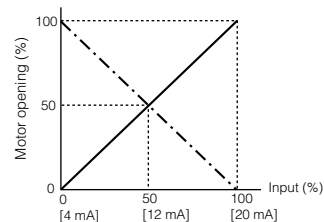


Optional parts (sold separately)

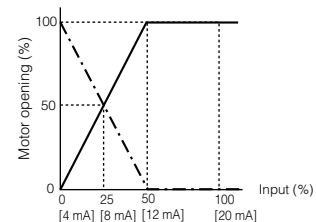
Name	Model No.
Mounting bracket (accessory)	81409654-001
Hard cover	81446915-001
Soft cover	81441121-001
Terminal cover	81446912-001

Sample settings for center of angle of rotation and proportional band

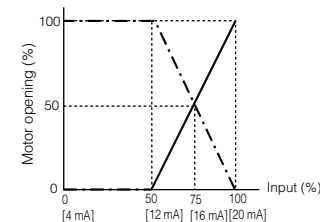
1. Center of angle of rotation: 50% (12 mA)
Proportional band: 100% (16 mA)



2. Center of angle of rotation: 25% (8 mA)
Proportional band: 50% (8 mA)



3. Center of angle of rotation: 75% (16 mA)
Proportional band: 50% (8 mA)



— : Direct action (opening direction on input increase)
- · - · : Reverse action (closing direction on input increase)