



บริษัท เอดีดี เฟอร์เนส จำกัด

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● ACTUATORS

# Motor Driver (DC / Position Proportional Converter) | RN748A



The RN748A is a signal converter that receives a 4–20 mAdc 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 mAdc
		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 Vdc 40 mA
	Event relay output (1 to 3)	Contact rating	250 Vac / 30 Vdc 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

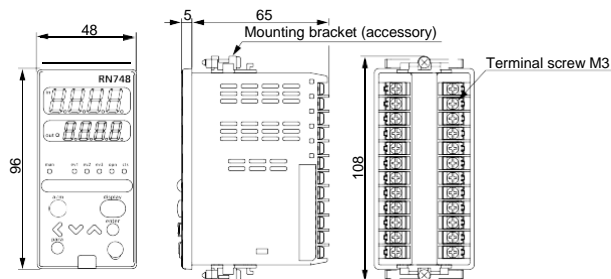
Basic model No.	Additional treatment	Description
RN748A00		DC/position proportional converter, motor driver (100 to 240 Vac, with motor drive relay output MFB, 3 event relay outputs, 3 digital inputs)
	00	No additional treatment
	D0	Inspection results included
	Y0	Traceability certificate included

### Optional parts (sold separately)

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

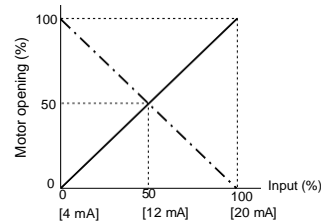
### External dimensions

(Unit: mm)

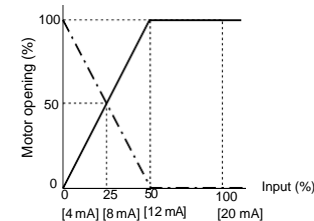


### Sample settings for center of angle of rotation and proportional band

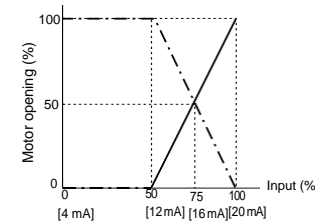
1. Center of angle of rotation: 50% (12 mA)  
Proportional band: 100% (16 mA)



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)

1 DIGITAL CONTROLLERS

2 RECORDERS, INDICATORS

3 CONVERTERS

4 FLAME SAFEGUARD SYSTEM

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6 SENSORS

7 GAS FLOW MEASUREMENT AND CONTROL PRODUCTS