

# R16Q Series 16+16 Points Master/Slave type Relay terminal

## User's Guide



Thank you for purchasing product of SAMWON ACT.  
Please check model of product that you purchase first, and read this manual prior to use it.

### Caution for Safety

- Caution** Case that results in serious damage in human body or equipment, and fire if user handles this equipment wrongly
- Warning** Case that results in slight damage in human body or equipment, and fire if user handles this equipment wrongly

### Caution

- Do Not use other voltage except appointed voltage.  
It may be the cause of fire or damage of equipment.
- Use it within nominal voltage and current which are marked on load.  
It may be the cause of fire or damage of equipment.
- Check COMMON polarity of using controller (PLC, etc) first, and then select proper product.  
It may be the cause of fire or damage of this equipment and user's.
  - COMMON Polarity of controller is '+' (NPN TYPE): R16Q-NS5A-M, R16Q-NS5A-S
  - COMMON Polarity of controller is '-' (PNP TYPE): R16Q-PS5A-M, R16Q-PS5A-S
- Make controller and connection cable between relay boards after checking internal wiring of relay board and PIN(terminal or socket) array of controller if you want to make it for yourself.  
It may be the cause of fire, and malfunction or damage of this equipment and user's.

※ The connection cable for PLC of various makers is provided by us. Please refer to the catalogue or contact Head or branch office if you need more detail models and specifications.

### Warning

- Plug or unplug power line and/or connector for signal after making sure to shut off power so as that it is prevented to be damaged or malfunctioned.
- Read this user's guide which is attached to product, and check product's performance, specification, operation pattern, signal, and how to handle prior to use. Keep user's guide please.
- When wiring the terminal block, please tighten it with the specified torque using the appropriate tool.  
If it is outside of this range torque, it may cause malfunction due to breakage or looseness of tightening surface terminal.
- Use removal key which is supplemented for replacement.  
Using other tools may be the cause of damage of relay or relay socket.

### Ordering information

Model	Relay	IO Point	Coil voltage	Common		Interface		Dimension (W × Dmm)	Mounting method
				Coil	Contact	Coil	Contact		
R16Q-NS5A-M	PANASONIC PQ1a-24V	16Point (1a+16)	24V DC	NPN	individual Com.	MIL-C-83503 40Pin / 20Pin	Screw Terminal 7.62mm Pitch 34Pole	174.0 × 70.0	DIN Rail (Channel)
R16Q-PS5A-M				PNP					
R16Q-NS5A-S				NPN		MIL-C-83503 20Pin			
R16Q-PS5A-S				PNP					

### Comparison of specification of relay

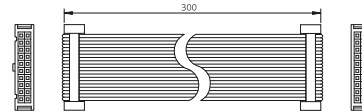
Item		PQ1a-24V
Contact	Arrangement	1a
	Nominal switching capacity(resistive load)	5A 250V AC/5A 30V DC
	Max. switching current	5A
	Max. switching voltage	270V AC/150V DC
	Nominal voltage	24V DC
Coil	Pick-up voltage	18.0V DC
	Drop-out voltage	1.2V DC
	Coil resistance	2,880Ω
	Nominal operation power	200mW
	Surge voltage between contact and coil	8000V
Initial breakdown voltage between contact and coil		4,000V rms
Country of origin		JAPAN

### Material / Specification

Case	Modified PPO
Protective cover	Polycarbonate
PCB	Epoxy 1.6t / 2oz
Elec. wire	AWG22-16 (MAX / 1.5mm)
Terminal Screw	M3 X 6L
Screw Torque	7~8kgf · cm (0.68~0.78 N · m)
Ambient temperature	-10℃ ~ +50℃ (No condensation)

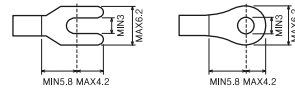
### Accessories

- MASTER, SLAVE board to board connection cable  
(Cable is enclosed together with R16Q-□S5A-M)



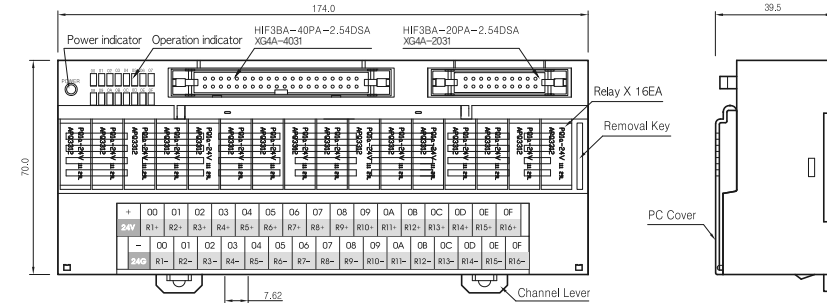
- Short bar (2EA) is enclosed together with R16Q Series

### Applicable Crimp Terminal

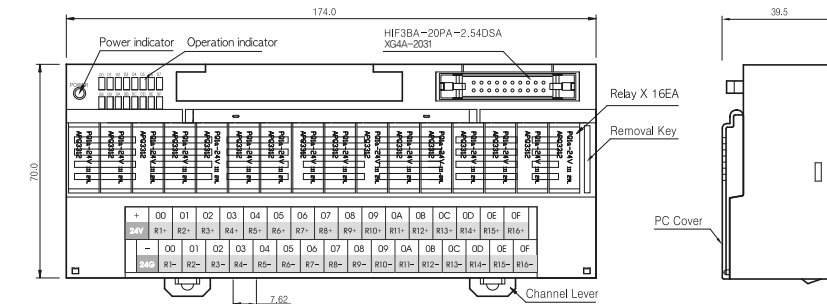


### Dimension

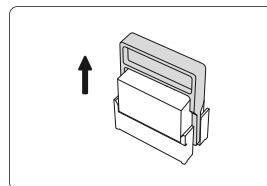
- R16Q-□S5A-M (Master board)



- R16Q-□S5A-S (Slave board)



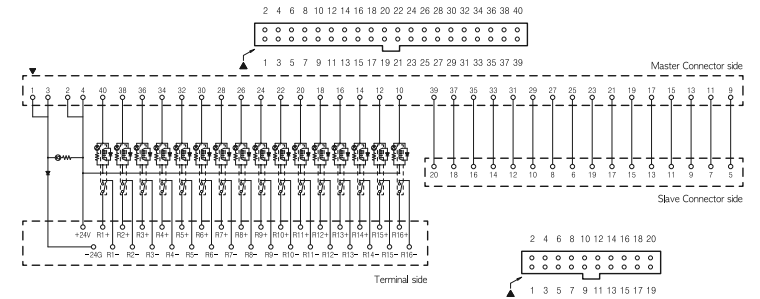
### How to replace relay (Removal Key is embedded in product)



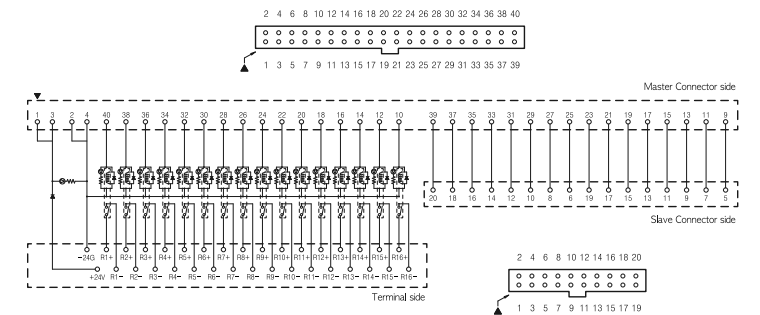
- Make sure to use removal key as shown in right figure when removing relay.
- Do Not make sure to use removal key when installing relay, and insert it into socket indirectly.

### Wiring Diagram

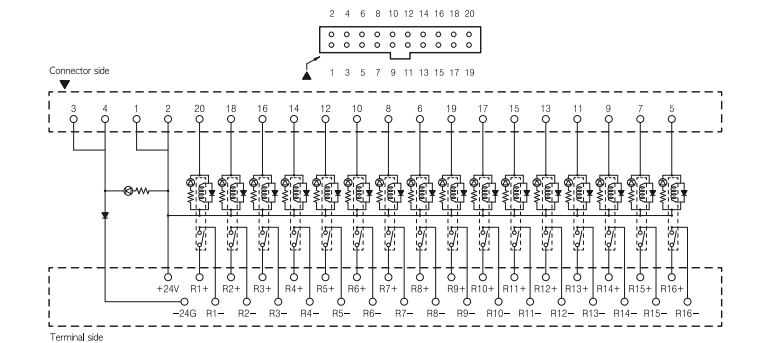
- R16Q-NS5A-M (Master board, NPN) +COM



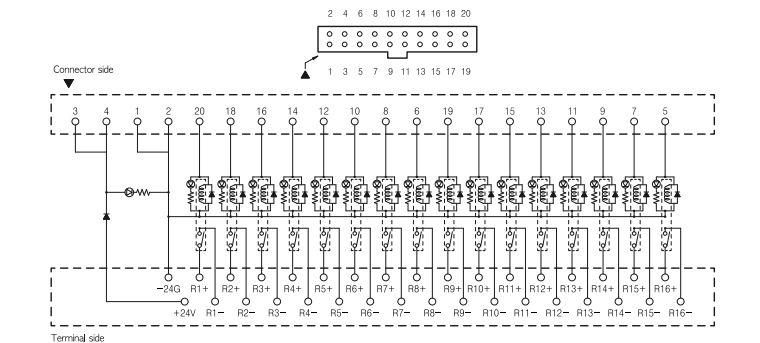
- R16Q-PS5A-M (Master board, PNP) -COM



- R16Q-NS5A-S (Slave board, NPN) +COM



- R16Q-PS5A-S (Slave board, PNP) -COM



※ The above specifications are subject to change without notice.  
※ Please contact HQ or branch office where you purchased product for A/S of this product or technique.