

## R32C Series 32Points 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 open the cover while the power is on or during operation. It may cause electric shock.
- Be sure to shut off the power supply from the outside before mounting and wiring. It is cause fire or electric shock.
- Do not use if the cable sheath is damaged. It may cause electric shock.
- When machining and wiring the mounting hole, do not allow foreign matter such as dust or wire covering to enter the connection terminal. Failure to do so may result in damage to the unit, heat, or ignition.

※ 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

- Use within the specified rated voltage and rated current range. This may result in fire or damage to the product.
- Do not use outdoors. Electric shock and product life may be shortened.
- Use within the specified temperature range. (-10℃ ~ +50℃) Damage to the outer case may occur.
- Do not use water or organic solvents for cleaning. Use a dry towel free of water. It may cause electric shock and damage to the product.

#### • Precautions for Use

- Use in the specified temperature and humidity.
- Please check the common polarity of the controller(PLC etc..) you are using and select our products.
  - If the common polarity of the controller is "+" polarity (NPN,SINK TYPE) : R32C-NS5A-40P, R32C-YNT-UL
  - If the common polarity of the controller is "-" polarity (PNP, SOURCE TYPE) : R32C-PS5A-40P, R32C-YPT-UL
- Use AWG 22 ~ 16 (1.25mm / MAX) for the suitable wire, and check the crimp terminal after checking the "Applicable crimp terminal" specification.
- Input power should be isolated and supplied with limited voltage / current or Class 2, SELV power supply.
- 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.
- When replacing a relay, please use the removal key provided. Using other tools, It may be damaged for relay, relay socket.
- The device is suitable for use only within an acceptable enclosure which has mechanical rigidity.
- Can be used under the following environmental conditions.
  - Indoor
  - Pollution degree2
  - Altitude 2,000m or less
  - Overvoltage Category II

#### • Model Selection

Model	Relay	IO Point	Coil voltage	Common		Interface		Dimension (W * Dmm)	Protection circuit for contact
				Coil	Contact	Coil	Contact		
R32C-YNT-UL	TAKAMISAWA NYP-24W-K	32 Point (1a*32)	24V DC	NPN	8 Points Com.	Connector MIL-C-83503 40Pin	Screw terminal 7.62mm Pitch 40Pole	174.0*70 DIN Rail (Channel)	None
R32C-YPT-UL				PNP					
R32C-NS5A-40P	PANASONIC APAN3124			NPN					
R32C-PS5A-40P				PNP					
R32C-YNT-VU	TAKAMISAWA NYP-24W-K			NPN					Varistor
R32C-YPT-VU				PNP					
R32C-NS5A-V	PANASONIC APAN3124			NPN					
R32C-PS5A-V				PNP					

#### • Product/Specification

Model	R32C-YNT-UL R32C-YPT-UL	R32C-NS5A-40P R32C-PS5A-40P	R32C-YNT-VU R32C-YPT-VU	R32C-NS5A-V R32C-PS5A-V
Rated voltage	24VDC ±10%			
Power consumption <small>Note1)</small>	Approx. 10mA	Approx. 9.4mA	Approx. 10mA	Approx. 9.4mA
Rated current <small>Note2)</small>	250VAC ~ 50/60Hz 3A, 30VDC ± 3A (3A/1Point, 8A/1COM)			
Applicable connector	HIF3BA-40PA~2.54DSA or XG4A-4031-8			
Terminal pitch	7.62mm			
Suitable wire	AWG22~16 (1.25mm / MAX) (Use copper conductor only)			
Dielectric strength	Between coil and contact	3,000 Vrms for 1min		
	Between common contacts	750VAC ~1min	1,000 Vrms for 1min	470VAC ~1min
Screw	M3 X 6L			
Screw torque	7~8kgf・cm (0.68~0.78 N・m)			
Inside environment <small>Note3)</small>	Ambient temperature	-10℃ ~ +50℃		
	Ambient humidity	35~85%RH		
Material	Case	Modifide PPO		
	Protective cover	Polycarbonate		
	PCB	Epoxy 1.6t		
Approval	UL	CE, UL	UL	UL
Weight <small>Note4)</small>	Approx. 464g (Approx. 411g)	Approx. 411g (Approx. 388g)	Approx. 525g (Approx. 459g)	Approx. 503g (Approx. 437g)

Note1) The power consumption including Operation Lamp(LED) current by one relay.

Note2) Except 30VDC of rated voltage for UL 1449A

Note3) The conditions of use of the environment items are that they are not freezing or condensing.

Note4) It is weight in packed condition, parenthesized is only the product weight.

#### • Comparison of specification of relay

Item		NYP-24W-K	APAN3124
Contact	Arrangement	1a	1 Form A (Bifurcated)
	Nominal switching capacity (resistive load)	5A 250VAC ~ / 5A 30VDC ±	5A 250VAC ~ / 5A 30VDC ±
	Max. switching current	5A	5A
	Max. switching voltage	270VAC ~ / 150VDC ±	250VAC ~ / 110VDC ± (0.4A)
Coil	Nominal voltage	24VDC ±	24VDC ±
	Pick-up voltage	16.1VDC ±	70% max. of Rated voltage
	Drop-out voltage	2.4VDC ±	5% min. of Rated voltage
	Coil resistance	4,800 Ω	5,236 Ω
	Nominal operation power	120mW	110mW
Surge voltage between contact and coil		5,080V	6,000V
Initial breakdown voltage between contact and coil		3,000VAC ~1min	3,000V rms for 1min
Country of origin		JAPAN	CHINA

#### • Applicable Crimp Terminal

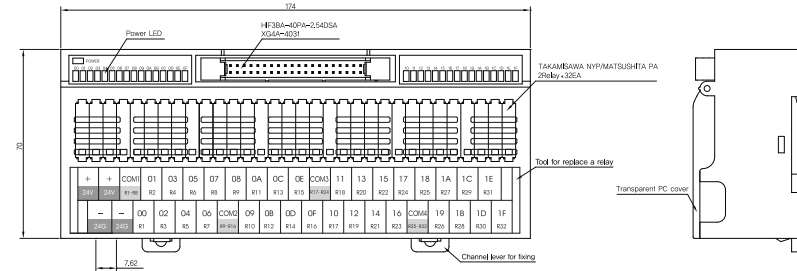
	(Unit : mm)				
	A	B	C	D	Suitable wire
Y type terminal	5.8 or higher	4.2 or lower	3.0 or higher	6.2 or lower	AWG 22~16 (0.30~1.25mm)
O type terminal	5.8 or higher	4.2 or lower	3.0 or higher	6.2 or lower	

※Use crimp terminals for UL approved products.

#### • Dimension

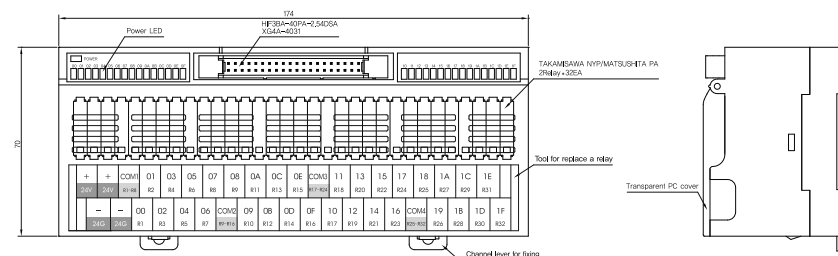
▶ Dimension of R32C (Varistor is not installed)

• R32C-Y □ T-UL / R32C- □ S5A-40P

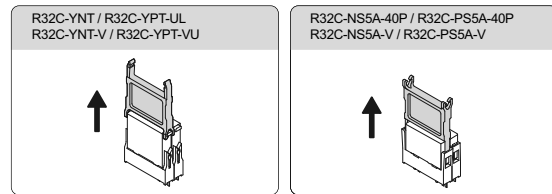


▶ Dimension of R32C ( Varistor is not installed)

• R32C-Y □ T-VU / R32C- □ S5A-V



#### • How to replace relay (Removal Key is embeded 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.

#### • Terminal marking strips

+	+	COM1	01	03	05	07	08	0A	0C	0E	COM3	11	13	15	17	18	1A	1C	1E	40Pin
24V	24V	R1=R8	R2	R4	R6	R8	R9	R11	R13	R15	R16=R18	R18	R20	R22	R24	R25	R27	R29	R31	
-	-	00	02	04	06	COM2	09	0B	0D	0F	10	12	14	16	COM4	19	1B	1D	1F	
24G	24G	R1	R3	R5	R7	R10	R12	R14	R16	R17	R19	R21	R23	R26=R28	R28	R30	R32			Removal key

R32C-YNT-UL / R32C-NS5A-40P  
R32C-YNT-VU / R32C-NS5A-V

-	-	COM1	01	03	05	07	08	0A	0C	0E	COM3	11	13	15	17	18	1A	1C	1E	40Pin
24G	24G	R1=R8	R2	R4	R6	R8	R9	R11	R13	R15	R16=R18	R18	R20	R22	R24	R25	R27	R29	R31	
+	+	00	02	04	06	COM2	09	0B	0D	0F	10	12	14	16	COM4	19	1B	1D	1F	
24V	24V	R1	R3	R5	R7	R10	R12	R14	R16	R17	R19	R21	R23	R26=R28	R28	R30	R32			Removal key

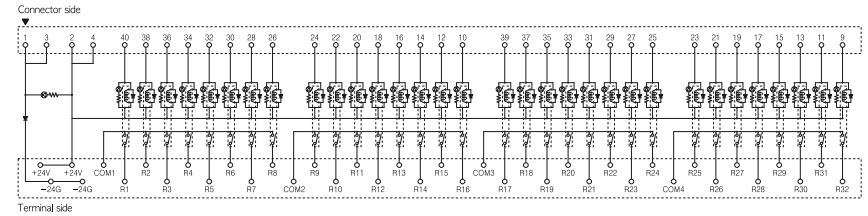
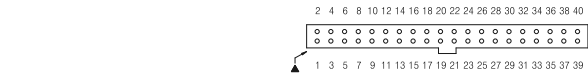
R32C-YPT-UL / R32C-PS5A-40P  
R32C-YPT-VU / R32C-PS5A-V

※ It is attached to the window for user's convenience.

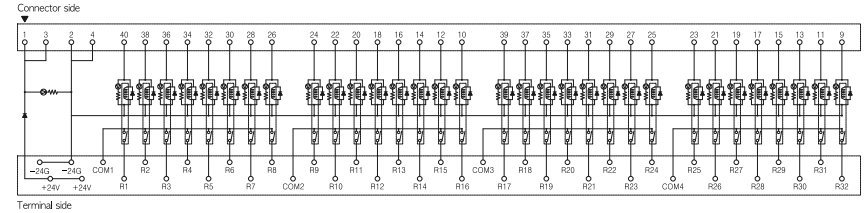
#### • Wiring Diagram

▶ Wiring of R32C (Varistor is not installed)

• R32C-YNT-UL / R32C-NS5A-40P (NPN)

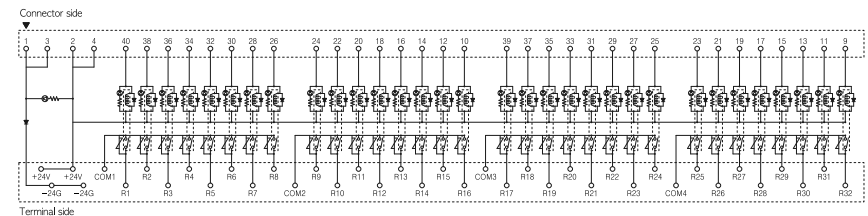


• R32C-YPT-UL / R32C-PS5A-40P (PNP)

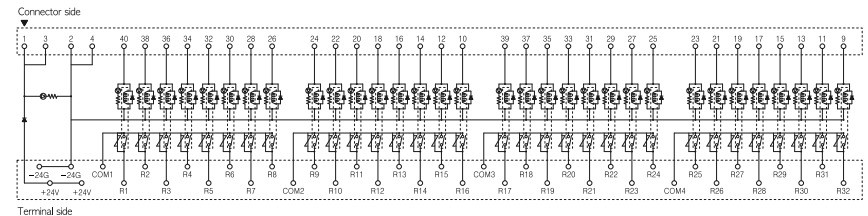


▶ Wiring of R32C(Varistor is installed)

• R32C-YNT-VU / R32C-NS5A-V (NPN)



• R32C-YPT-VU / R32C-PS5A-V (PNP)



※ 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.



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