

R32C-I Series 32Points, Input 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

1. Do Not use other voltage except appointed voltage. It may be the cause of fire or damage of equipment.
2. Use it within nominal voltage and current which are marked on load.
It may be the cause of fire or damage of equipment.
3. Check input card's polarity of using equipment's COMMON and controller (PLC, etc) first,
and then select proper product. It may be the cause of fire or damage of this equipment and user's.
- When the polarity of equipment's Common is opposite to the PLC input card's
NPN → PNP : R32C-YN-INP
PNP → NPN : R32C-YP-INN
- When used for malfunction due to leakage current of PLC input side or for insulation purpose
NPN → NPN : R32C-YN-INN
PNP → PNP : R32C-YP-INP
4. Please make sure to check the internal wiring diagram of the terminal block and the arrangement of the controller
PIN (terminal) when making the connection cable between the controller (PLC etc.).
It may be the cause of 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

1. 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.
2. 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.
3. When wiring the terminal block, please tighten it with the 0.68~0.78N · m 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.
4. Use removal key which is supplemented for replacement.
Using other tools may be the cause of damage of relay or relay socket.

• Model Selection

Model	Installation Relay	IO Point(s)	Coil Rate voltage	Common		Interface		Use	Dimensions (W * Dmm)	Mounting method
				Coil	Contact	Coil	Contact			
R32C-YN-INP	TAKAMISAWA NYP-24W-K	32Point (1a*32)	24V DC	NPN 	PNP 	Screw Terminal 7.62Pitch 40Pole	Connector MIL-C- 83503 40Pin	Polarity conversion	174.0*70.0	DIN Rail (Channel)
R32C-YP-INN				PNP 	NPN 			Input side insulation		
R32C-YN-INN				NPN 	NPN 					
R32C-YP-INP				PNP 	PNP 					

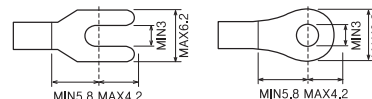
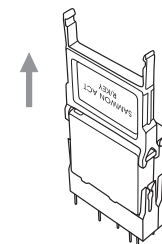
• NYP Relay Specification

Item		NYP-24W-K
Contact	Arrangement	1a
	Norminal switching capacity (resistive load)	5A 250V AC / 5A 30V DC
	Max. switching current	5A
	Max. switching voltage	270V AC / 150V DC
Coil	Nominal voltage	24V DC
	Pick-up Voltage	16.1V DC
	Drop-out Voltage	2.4V DC
	Coil resistance	4,800 Ω
	Nominal operating power	120mW
Surge voltage between contact and coil		5,080V
Initial breakdown voltage between contact and coil		3,000V AC 1min
Country of origin		JAPAN

• Material

Case	Modified PPO
Protective cover	Polycarbonate
P.C.B	Epoxy 1.6t / 2oz
Applicable wire	AWG22~16 (MAX / 1.5mm ²)
Terminal Screw	M3 X 6L
Screw torque	7~8Kgf · cm (0.68~0.78N · m)
Ambient temperature	-10°C ~ +50°C (No condensation)

• How to replace relay (Removal Key is embeded in product)



• Connection Cable Between Major PLCs

• MITSUBISHI PLC (MELSEC Series)

PLC model	I/O CARD	PLC COMMON	IO Point(s)	Applicable Model		Quantity	Cable Model	Quantity
				Polarity conversion	Input side insulation			
Q	QX41	NPN	32(入)	R32C-Y-P-INN	R32C-Y-N-INN	1	C40HF-□LB-MIN1	1
	QX42	NPN	64(入)	R32C-Y-P-INN	R32C-Y-N-INN	2	C40HF-□LB-MIN1	2
A1S	A1SX41	NPN	32(入)	R32C-Y-P-INN	R32C-Y-N-INN	1	C40HF-□LB-MIN1	1
	A1SX42	NPN	64(出)	R32C-Y-P-INN	R32C-Y-N-INN	2	C40HF-□LB-MIN1	2
	A1SH42	NPN	32(入)	R32C-Y-P-INN	R32C-Y-N-INN	1	C40HF-□LB-MIN1	1
		NPN	32(出)				X	
A	AH42	NPN	32(入)	R32C-Y-P-INN	R32C-Y-N-INN	1	C40HF-□LB-MIN1	1
		NPN	32(出)				X	
Q	QX81	PNP	32(入)	R32C-Y-N-INP	R32C-Y-P-INP	1	C37HD-□LB-MIP1	1
A1S	A1SX81	PNP	32(入)	R32C-Y-N-INP	R32C-Y-P-INP	1	C37HD-□LB-MIP1	1

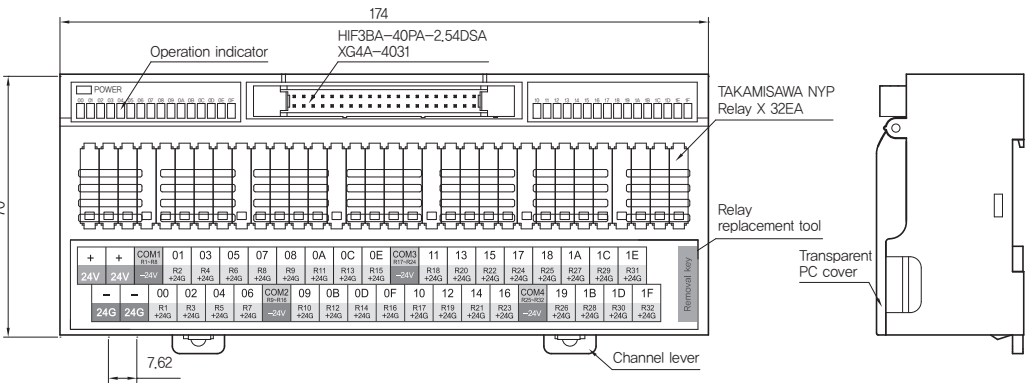
• LS ELECTRIC

PLC model	I/O CARD	PLC COMMON	I/O Point(s)	Applicable Model		Quantity	Cable Model	Quantity
				Polarity conversion	Input side insulation			
GM4 MK-300	G4I-D24B	NPN	32(入)	R32C-Y-P-INN	R32C-Y-N-INN	1	C37HD-□LB-LIN	1
GM6 MK-200	G6I-D24B	NPN	32(入)	R32C-Y-P-INN	R32C-Y-N-INN	1	C37HD-□LB-LIN	1
XGT	XGI-D24B	NPN	32(入)	R32C-Y-P-INN	R32C-Y-N-INN	1	C40HF-□LB-XIN1	1
	XGI-D28B	NPN	64(入)	R32C-Y-P-INN	R32C-Y-N-INN	2	C40HF-□LB-XIN1	2

※ □ represents the length of the cable, and 0.5m is 05, 1.0m is 10, 1.5m is 15, and 10m is 100.

※ Wiring diagram is for reference only, please check the power and I/O Address provided by the PLC maker before wiring.

• Dimension



※ 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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NO.201712-EP-ENG-R32C-I(rev.01)

• Wiring Diagram

