

## S32C-UL Series 32Points, PhotoMOS Relay mount

### 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) : S32C-NT-202D-UL
  - If the common polarity of the controller is "-" polarity (PNP, SOURCE TYPE) : S32C-PT-202D-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(s)	Coil Rated voltage	Common		Interface		Dimensions (W × Dmm)	Mounting method
				Coil	Contact	Coil	Contact		
S32C-NT-202D-UL	PANSONIC	32Point (1a×32)	5~24V DC	NPN	8P COM.	Connector MIL-C-83503 40Pin	Screw terminal 7.62Pitch 40Pole	174.0×70.0	DIN Rail (Channel)
S32C-PT-202D-UL	AQZ202D			PNP					

#### • Product/Specification

Model	S32C-NT-202D-UL S32C-PT-202D-UL	
Rated voltage	24VDC ±10%	
Power consumption <small>Note1)</small>	Approx. 11.5mA	
Rated load current <small>Note2)</small>	24VDC ±1.6A (1.6A/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)	
Isolation voltage between input and output	2,500VAC~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
Weight <small>Note4)</small>	Approx. 392g (Approx. 341g)	

Note1) The power consumption including Operation Lamp(LED) current by one relay.  
Note2) This is the capacity when the operating temperature meets the values in the temperature characteristic graph.  
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.

#### • Applicable Crimp Terminal

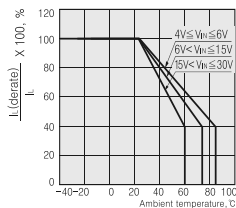
	A	B	C	D	Suitable wire
Y type terminal	5.8 or higher	4.2 or lower	3.0 or higher	6.2 or lower	AWG 22~16 (0.30~1.25mm)
O type terminal	5.8 or higher	4.2 or lower	3.0 or higher	6.2 or lower	

※Use crimp terminals for UL approved products.

#### • AQZ202D Specification (Ambient temperature 25℃)

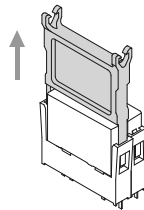
Item				AQZ202D
Input	Input voltage			30V
	Input reverse voltage			5V
	Power dissipation			300mW
	Operate voltage	Typical		1.4V
		Maximum		4V
	Turn off voltage	Minimum		0.8V
Typical			1.3V	
Output	Load voltage (Peak AC)			60V
	Continuous load current (Peak AC)			2.7A
	Peak load current			9.0A
	Power dissipation			1.6W
Transper characteristics	Switching speed	Turn on time	Typical	5.8ms
			Maximum	10.0ms
		Turn off time	Minimum	0.2ms
			Typical	3.0ms
Total power dissipation				1.6W
I/O isolation voltage				2,500VAC
Country of origin				JAPAN

#### • Temperature characteristic graph



Load current vs. ambient temperature characteristics  
 Allowable ambient temperature : −40℃ to +85℃  
 VIN : Input voltage  
 IL (derate) : Load current (derate)  
 IL : Absolute maximum ratings of continuous load current

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



#### • Terminal marking strips

##### • S32C-NT-202D-UL

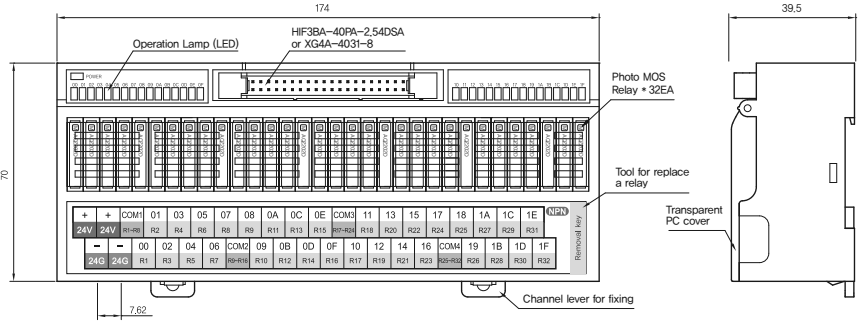
+	+	COM1	01	03	05	07	08	0A	0C	0E	COM3	11	13	15	17	18	1A	1C	1E	NPN
24V	24V	R1-R8	R2	R4	R6	R8	R9	R11	R13	R15	R17-R24	R18	R20	R22	R24	R25	R27	R29	R31	
-	-	00	02	04	06	COM2	09	0B	0D	0F	10	12	14	16	COM4	19	1B	1D	1F	
24G	24G	R1	R3	R5	R7	R9-R16	R10	R12	R14	R16	R17	R19	R21	R23	R25-R32	R26	R28	R30	R32	

##### • S32C-PT-202D-UL

-	-	COM1	01	03	05	07	08	0A	0C	0E	COM3	11	13	15	17	18	1A	1C	1E	PNP
24G	24G	R1-R8	R2	R4	R6	R8	R9	R11	R13	R15	R17-R24	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	R9-R16	R10	R12	R14	R16	R17	R19	R21	R23	R25-R32	R26	R28	R30	R32	

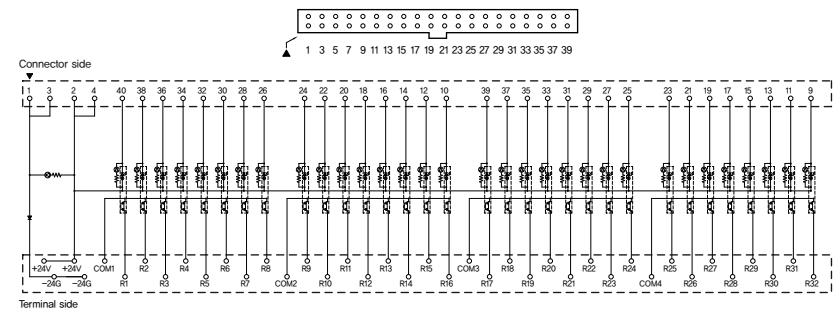
\* It is attached to the window for user's convenience.

#### • Dimension

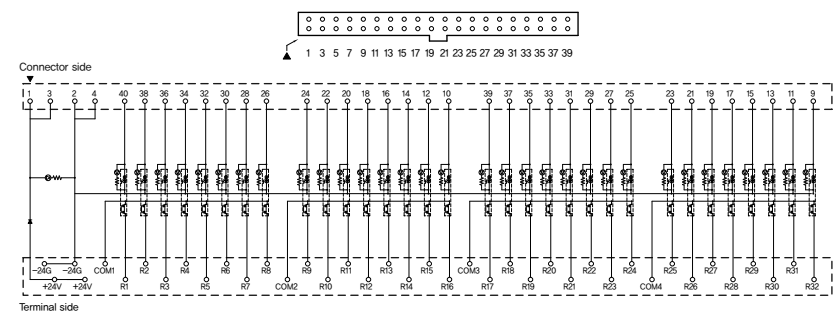


#### • Wiring diagram

##### • S32C-NT-202D-UL (NPN)



##### • S32C-PT-202D-UL (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.

#### Major products

- Relay terminal 1, 2, 4, 6, 8, 16, 32point
- Interface terminal 20, 24, 26, 34, 40, 50, 40 x 2pole
- PLC I/O Connecting cables MITSUBISHI, LSIS, CIMON, OMRON, FUJII, YOKOGAWA, HITACHI, SIEMENS, AB, etc.
- Servo Connecting cables Encoder cable, Power cable, Motion cable / MITSUBISHI, YASKAWA, OMRON, PANSONIC, LSIS, SAMSUNG, etc.
- Wiring harness / Special cable assembly