[Issue No.] FA-A-0035 [Title] Production discontinuation of MELSEC-AnS series model [Relevant Models] A1SY40/A1SY41

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Thank you for your continuing use of Mitsubishi MELSEC-AnS series.

Production of the following MELSEC-AnS series model will be discontinued.

1. Discontinued models

Product names	Models
AnS series I/O module	A1SY40
AnS series I/O module	A1SY41

2. Schedule

- (1) Order stoppage: On the last day of August 2008
- (2) Production stoppage: On the last day of September 2008
- (3) Repair acceptance: By the end of September 2015 (For seven years after the production stoppage)

3. Reason for the production stoppage

Alternative (upward compatible) models, A1SY40P/A1SY41P will be released.



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4. Specification comparison

4.1 Specifications comparison between A1SY40P and A1SY40

Specifications 16 points Isolation method Photocoupler Rated load voltage 12/24VDC Operating load voltage 10.2 to 30 VDC (peak voltage: 30VDC) max. load current 0.1A/point, 0.8A/common Max. load current 0.7A 10ms or less Max. inrush current 0.7A 10ms or less Max. voltage drop at ON 0.1VDC (TYP, 0.1A Max. voltage drop at ON 0.2VDC (MAX, 0.1A Response OFF→ON Imms or less 2ms or less Surge supressor Zener diode Fuse None Wring method for common 8 points/common (common terminals: TB10, TB20) Protection function Available (thermal protection is activated in increments of 1 point. Protection function None*3 Available (LED goes on when fuse blows: output to CPU, *2 Operation indication ON state is indicated (LEDs) External connections 20 points terminal block (M3.5~7 screw) Applicable wire size 0.75 to 1.5mm ²	Models		A1SY40P	A1SY40	
Isolation method Photocoupler Rated load voltage 12/24VDC Operating load voltage range 10.2 to 30 VDC (peak voltage: 30VDC) Max. load current 0.1A/point, 0.8A/common Max. inrush current 0.7A 10ms or less Leakage current at OFF 0.1MA or less Max. voltage drop at ON 0.1VDC (TYP.) 0.1A 0.2VDC (MAX.) 0.1A 2.5VDC (MAX.) 0.1A Response OFF→ON time ON→OFF 1ms or less 2ms or less time ON→OFF 1ms or less (rated load, resistance load) 2ms or less (rated load, resistance load) Surge suppressor Zener diode Fuse None Viring method for common 8 points/common (common terminals: TB10, TB20) Available (thermal protection, short circuit protection) • Thermal protection is activated in increments of 1 point. • Short circuit protection is activated in increments of 1 point. • Short circuit protection is activated in increments of 1 point. • Short circuit protection is activated in increments of 1 point. • Operation indication Operation indication ON state is indicated (LED goes on when fuse blows: output to CPU.) *2 Operation indication <td colspan="2">Specifications</td> <td>AISY40P</td> <td>AISY40</td>	Specifications		AISY40P	AISY40	
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Wiring method for common 8 points/common (common terminals: TB10, TB20) Protection function Available (thermal protection, short circuit protection) • Thermal protection is activated in increments of 1 point. • Short circuit protection is activated in increments of 1 point. None Error indication None*3 Available (LED goes on when fuse blows: output to CPU.) *2 Operation indication ON state is indicated (LEDs) External connections 20 points terminal block (M3.5×7 screw) Applicable wire size 0.75 to 1.5mm² Accessory None	Surge suppress	sor			
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Error indication None*3 Available (LED goes on when fuse blows: output to CPU.) *2 Operation indication ON state is indicated (LEDs) External connections 20 points terminal block (M3.5×7 screw) Applicable wire size 0.75 to 1.5mm² Accessory None	Protection function		 Thermal protection is activated in increments of 1 point. Short circuit protection is activated in increments of 1 	None	
External connections 20 points terminal block (M3.5×7 screw) Applicable wire size 0.75 to 1.5mm ² Accessory None	Error indication		•	Available (LED goes on when fuse blows: signal output to CPU.) *2	
Applicable wire size 0.75 to 1.5mm ² Accessory None	Operation indication		ON state is indicated (LEDs)		
Accessory None	External connections		20 points terminal block (M3.5×7 screw)		
	Applicable wire size				
	Accessory		None		
Applicable solderless R1.25-3.5, R2-3.5, RAV1.25-3.5, RAV2-3.5 terminal R1.25-3.5, R2-3.5, RAV1.25-3.5, RAV2-3.5	Applicable solderless terminal		R1.25-3.5, R2-3.5, RAV1.25-3.5, RAV2-3.5		
External Voltage 12/24VDC (10.2 to 30VDC)	External	Voltage	12/24VDC (10.2 to 30VDC)		
power supply Current 11mA (TYP.24VDC/common) 8mA (TYP.24VDC/common)	•	Current	11mA (TYP.24VDC/common)	8mA (TYP.24VDC/common)	
5VDC internal current consumption79mA (TYP. all points are ON)270mA (TYP. all points are ON)			79mA (TYP. all points are ON)	270mA (TYP. all points are ON)	
Weight 0.13kg 0.19kg	· · · · · · · · · · · · · · · · · · ·		0.13kg	0.19kg	

*1 The fuse in the output module is provide to prevent the external wiring from burning in the event of a short in the module's output. Therefore, it may not be able to protect output devices. If an output device is damaged in a failure mode other than a short circuit, the fuse might not blow.

*2 The "ERR." Indicating LED will also light when the external power supply is shut OFF.

*3 A1SY40P does not have the function of outputting signal to CPU when the external power supply is shut OFF.

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4.2 Specifications comparison between A1SY41P and A1SY41

Models		A1SY41P	A1SY41	
Number of o	utput points	32 points		
Isolation me	· ·	Photocouple	er	
Rated load v	oltage	12/24VDC		
Operating lo	ad voltage			
range		10.2 to 30 VDC (peak voltage: 30VDC)		
Max. load current		0.1 A/point, 2A/common		
Max. inrush current		0.7A 10ms or less	0.4A 10ms or less	
Leakage curr	rent at OFF	0.1mA or less		
Max. voltage drop at ON		0.1VDC (TYP.) 0.1A	1.0VDC (TYP.) 0.1A	
Iviax. voltage		0.2VDC (MAX.) 0.1A	2.5VDC (MAX.) 0.1A	
Response	OFF→ON	1ms or less	2ms or less	
time	ON→OFF	1ms or less (rated load, resistance load)	2ms or less (rated load, resistance load)	
Surge suppre	essor	Zener diod	e	
Fuse		None	Fuse 3.2A (1 piece/common), not replaceable *1	
Wiring method for		22 points/common (common terminale: A1 A2)		
common	32 points/common (common terminals: A1, A2)			
Protection function		Available (thermal protection, short circuit protection)		
		• Thermal protection is activated in increments of 1 point.	None	
		• Short circuit protection is activated in increments of 1		
		point.		
Error indication		None*3	Available (LED goes on when fuse blows: signal output to CPU.)*2	
Operation indication		ON state is indicated (LEDs)		
External connections		40-pin connector		
Applicable wire size		0.3 mm ²		
Accessory		External wiring connector (soldering type): 1pcs		
Applicable				
connector/terminal block		A6TBXY36, A6TBXY54		
conversion n	conversion module			
External	Voltage	12/24VDC (10.2 to 30VDC)		
power	Current	12mA (TYP.24VDC/common)	8mA (TYP.24VDC/common)	
supply		12mA (111.24 v DC/common)		
5VDC internal current		141mA (TYP. All points are ON)	500mA (TYP. All points are ON)	
consumption		· · ·	· · · ·	
Weight		0.15kg	0.21kg	

*1 The fuse in the output module is provide to prevent the external wiring from burning in the event of a short in the module's output. Therefore, it may not be able to protect output devices. If an output device is damaged in a failure mode other than a short circuit, the fuse might not blow.

*2 The "ERR." Indicating LED will also light when the external power supply is shut OFF.

*3 A1SY41P does not have the function of outputting signal to CPU when the external power supply is shut OFF.



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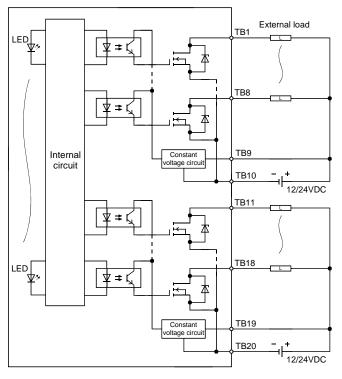
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5. Internal circuit diagrams

5.1 A1SY40P/A1SY40 internal circuit diagrams

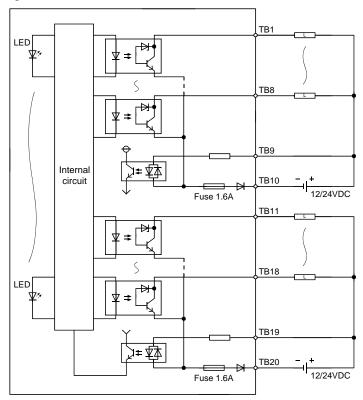
(1) A1SY40P circuit diagram





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(2) A1SY40 circuit diagram



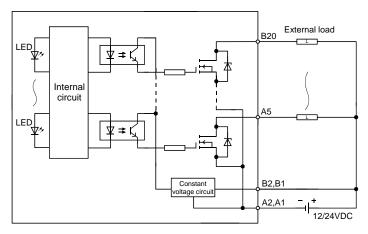


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5.2 A1SY41P/A1SY41 internal circuit diagram

(1) A1SY41P circuit diagram



(2) A1SY41 circuit diagram

