

TECHNICAL BULLETIN

[Issue No.] FA-A-0035

[Page] 1/6

[Title] Production discontinuation of MELSEC-AnS series model

[Date of Issue] April, '08

[Relevant Models] A1SY40/A1SY41

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.

TECHNICAL BULLETIN

[Issue No.] FA-A-0035

[Page] 2/6

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[Date of Issue] April, '08

[Relevant Models] A1SY40/A1SY41

4. Specification comparison

4.1 Specifications comparison between A1SY40P and A1SY40

Models		A1SY40P	A1SY40
Specifications			
Number of output points		16 points	
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	0.4A 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	1.0VDC (TYP.) 0.1A 2.5VDC (MAX.) 0.1A
Response time	OFF→ON	1ms or less	2ms or less
	ON→OFF	1ms or less (rated load, resistance load)	2ms or less (rated load, resistance load)
Surge suppressor		Zener diode	
Fuse		None	Fuse 1.6A (1 piece/common), not replaceable *1
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: signal 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	
Accessory		None	
Applicable solderless terminal		R1.25-3.5, R2-3.5, RAV1.25-3.5, RAV2-3.5	
External power supply	Voltage	12/24VDC (10.2 to 30VDC)	
	Current	11mA (TYP.24VDC/common)	8mA (TYP.24VDC/common)
5VDC internal current consumption		79mA (TYP. all points are ON)	270mA (TYP. all points are ON)
Weight		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.

TECHNICAL BULLETIN

[Issue No.] FA-A-0035

[Page] 3/6

[Title] Production discontinuation of MELSEC-AnS series model

[Date of Issue] April, '08

[Relevant Models] A1SY40/A1SY41

4.2 Specifications comparison between A1SY41P and A1SY41

Models		A1SY41P	A1SY41
Specifications			
Number of output points		32 points	
Isolation method		Photocoupler	
Rated load voltage		12/24VDC	
Operating load 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 current at OFF		0.1mA or less	
Max. voltage drop at ON		0.1VDC (TYP.) 0.1A 0.2VDC (MAX.) 0.1A	1.0VDC (TYP.) 0.1A 2.5VDC (MAX.) 0.1A
Response time	OFF→ON	1ms or less	2ms or less
	ON→OFF	1ms or less (rated load, resistance load)	2ms or less (rated load, resistance load)
Surge suppressor		Zener diode	
Fuse		None	Fuse 3.2A (1 piece/common), not replaceable *1
Wiring method for 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. • Short circuit protection is activated in increments of 1 point.	None
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 conversion module		A6TBXY36, A6TBXY54	
External power supply	Voltage	12/24VDC (10.2 to 30VDC)	
	Current	12mA (TYP.24VDC/common)	8mA (TYP.24VDC/common)
5VDC internal current consumption		141mA (TYP. All points are ON)	500mA (TYP. All points are ON)
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.

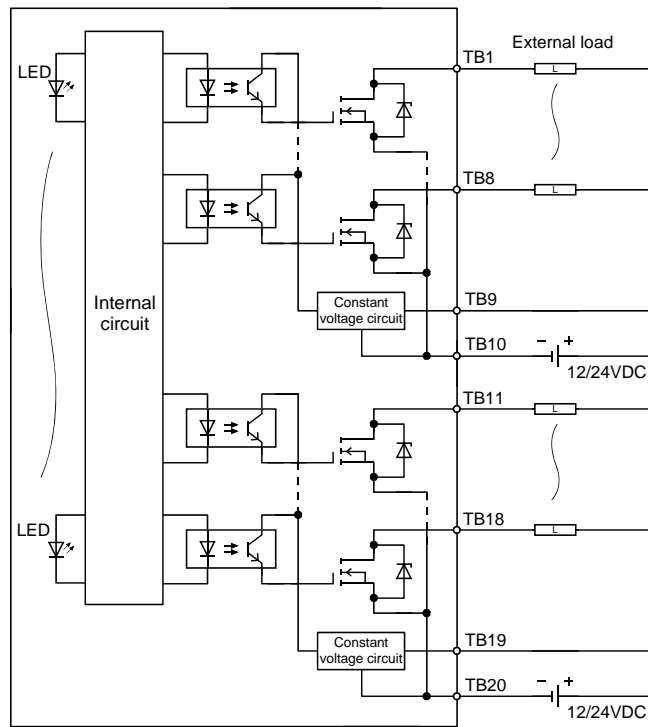
*2 The "ERR." Indicating LED will also light when the external power supply is shut OFF.

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

5. Internal circuit diagrams

5.1 A1SY40P/A1SY40 internal circuit diagrams

(1) A1SY40P circuit diagram



TECHNICAL BULLETIN

[Issue No.] FA-A-0035

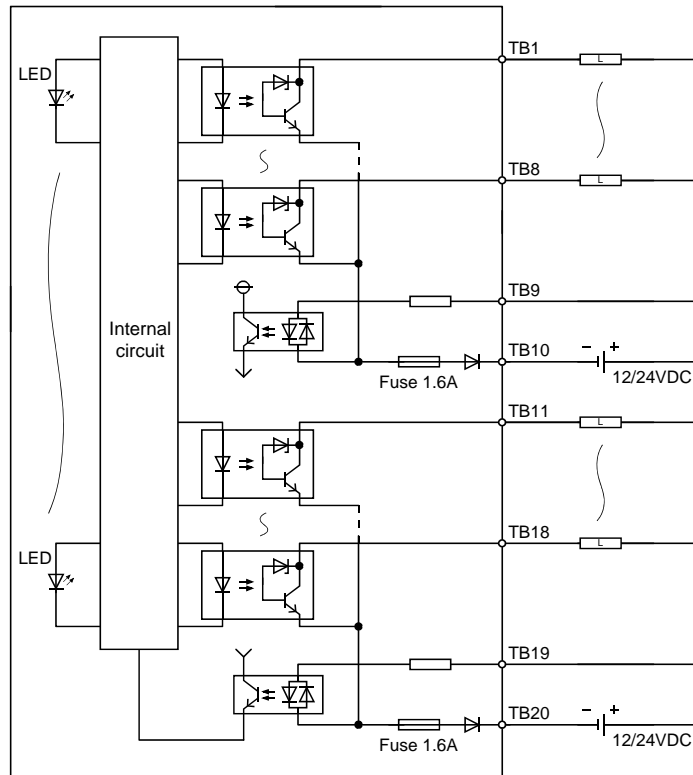
[Page] 5/6

[Title] Production discontinuation of MELSEC-AnS series model

[Date of Issue] April, '08

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(2) A1SY40 circuit diagram



TECHNICAL BULLETIN

[Issue No.] FA-A-0035

[Page] 6/6

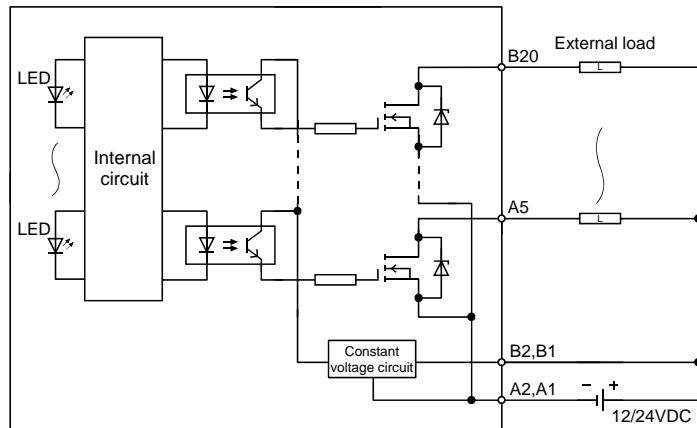
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5.2 A1SY41P/A1SY41 internal circuit diagram

(1) A1SY41P circuit diagram



(2) A1SY41 circuit diagram

