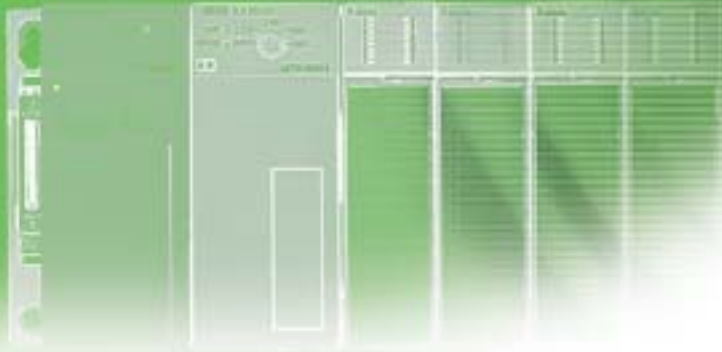


January 2004

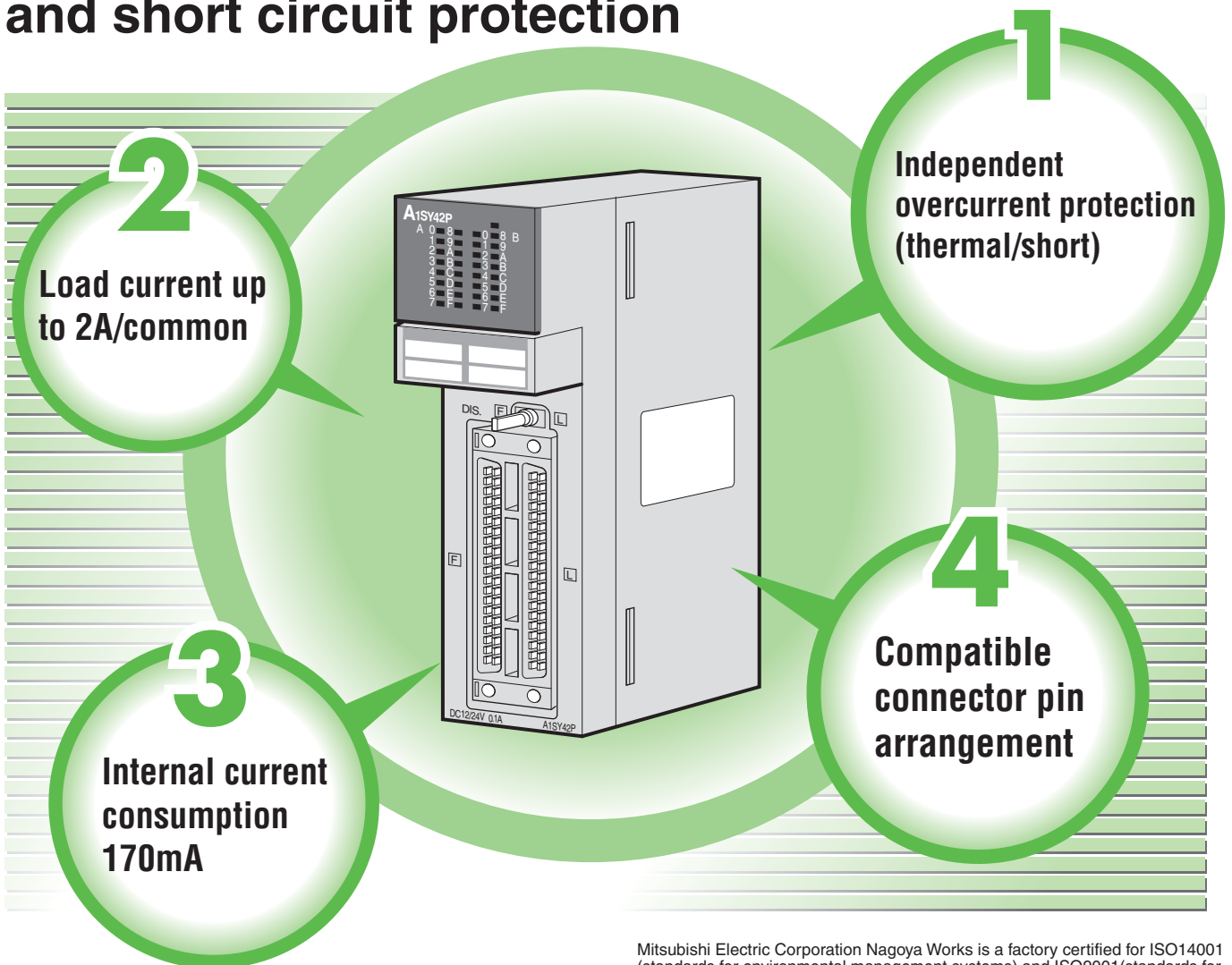
New Product Release

No. 215E



**Transistor Output Module
A1SY42P (Sink Type)**

**A1SY42P* now incorporating thermal
and short circuit protection**



Mitsubishi Electric Corporation Nagoya Works is a factory certified for ISO14001 (standards for environmental management systems) and ISO9001 (standards for quality assurance management systems)

*With the release of the new model, the previous model will be discontinued at the end of July 2004.



Features

1. Independent overcurrent protection (thermal/short)

- The previous model has been upgraded with devices providing overcurrent protection (thermal/short) for each point. It prevents damage of internal components from excessive current due to short or mis-wiring.
- Designed with no fuses included, therefore eliminating the need to replace modules because of a blown fuse.

2. Load current up to 2A/common

Load current extended to 2A/common, from 1.6A/common of the previous model. The capacity for the number of points that are ON simultaneously, even in high load periods, has been increased.

3. Internal current consumption 170mA

Internal current consumption has been reduced to 170mA. Compare this to the previous model's power consumption of 930mA. The power supply current consumption can be utilized for other devices in the system.

4. Compatible connector pin arrangement

Ease of replacement with the same pin arrangement matching the A1SY42. Replace the previous model and simply reconnect the cable.

Performance Specifications

A1SY42P against previous model A1SY42 ( indicates changed specifications.)

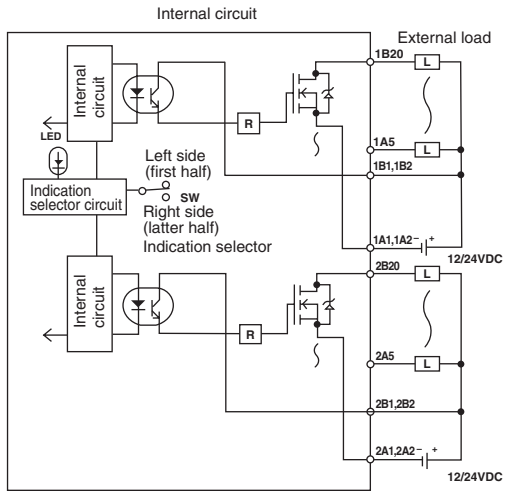
Specifications	Model	Transistor Output Module (Sink Type)	Transistor Output Module (Sink Type)
		A1SY42P  New	A1SY42
Number of output points		64 points	64 points
Isolation method		Photocoupler	Photocoupler
Rated load voltage		12/24VDC	12/24VDC
Operating voltage range		10.2 to 30VDC (peak voltage 30VDC)	10.2 to 30VDC (peak voltage 30VDC)
Max. load current		0.1A/point, 2A/common	0.1A/point, 1.6A/common
Max. inrush current		0.7A 10ms or less	0.4A 10ms or less
Leakage current at OFF		0.1mA or less	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, resistive load)	2ms or less (rated load, resistive load)
Surge suppressor		Zener diode	Zener diode
Fuse		No	Fuse 3.2A (1 piece/common), not replaceable*1
Common terminal arrangement		32 points/common (common terminals: 1A1, 1A2, 2A1, 2A2)	32 points/common (common terminals: 1A1, 1A2, 2A1, 2A2)
Protection function		Yes (Thermal and short protection for each point)	No
Error display		No	Yes (LED comes on when fuse blows: signal output to PC CPU)*2
Operation display		On indication (LED), 32 point switch-over using switch	On indication (LED), 32 point switch-over using switch
External connections		40-pin connector	40-pin connector
Applicable wire size		0.3mm ²	0.3mm ²
Accessories		Connectors (2 pieces) for external wiring (soldering-type)	Connectors (2 pieces) for external wiring (soldering-type)
Applicable connector/ terminal block conversion module		A6TBXY36, A6TBXY54	A6TBXY36, A6TBXY54
External supply power	Voltage	12/24VDC (10.2 to 30VDC)	DC12/24V (DC10.2 to 30V)
	Current	14mA (TYP. 24VDC/common)	8mA (TYP. 24VDC/common)
Internal current consumption(5VDC)		170mA (TYP. all points ON)	930mA (TYP. all points ON)
Weight (kg)		0.17	0.27

*1 The output module fuses prevent burnout from the external wiring if the module's outputs short. Consequently, output devices may not be protected. The fuses may not work if damage to the output devices is not caused by a short.

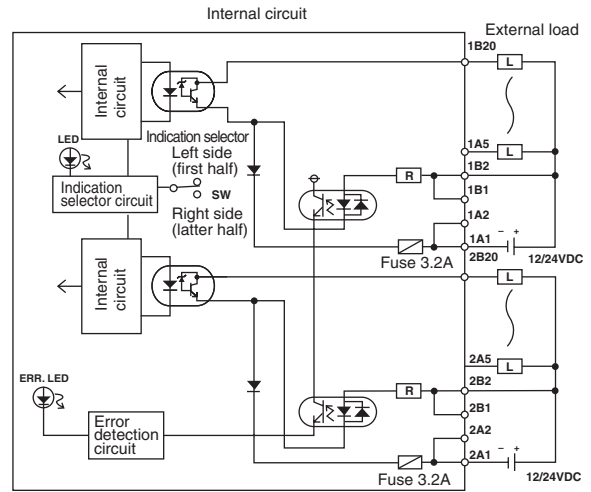
*2 External supply power dropouts also cause the "ERR." LED to come on.

Ladder Diagram

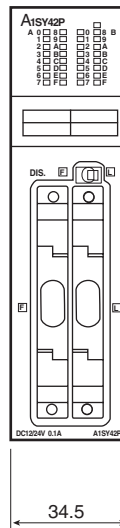
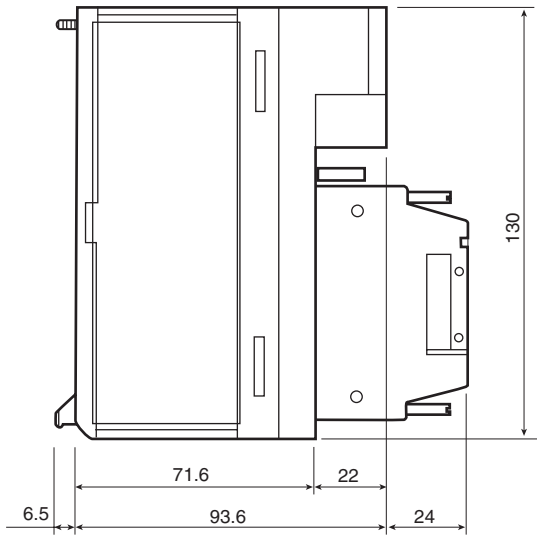
(1) A1SY42P Ladder Diagram **New**



(2) A1SY42 Ladder Diagram



External Dimensions



Unit: mm

Product list

Product name	Model	Model code
A1SY42P Transistor Output Module (Sink Type)	A1SY42P	13L339

Manual

Manual name	Manual supply status	IB/SH No.	Compatible sub-No.	Model code
AnS Module type I/O User's Manual	Sold separately	IB-66541	-K or higher	13JE81

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