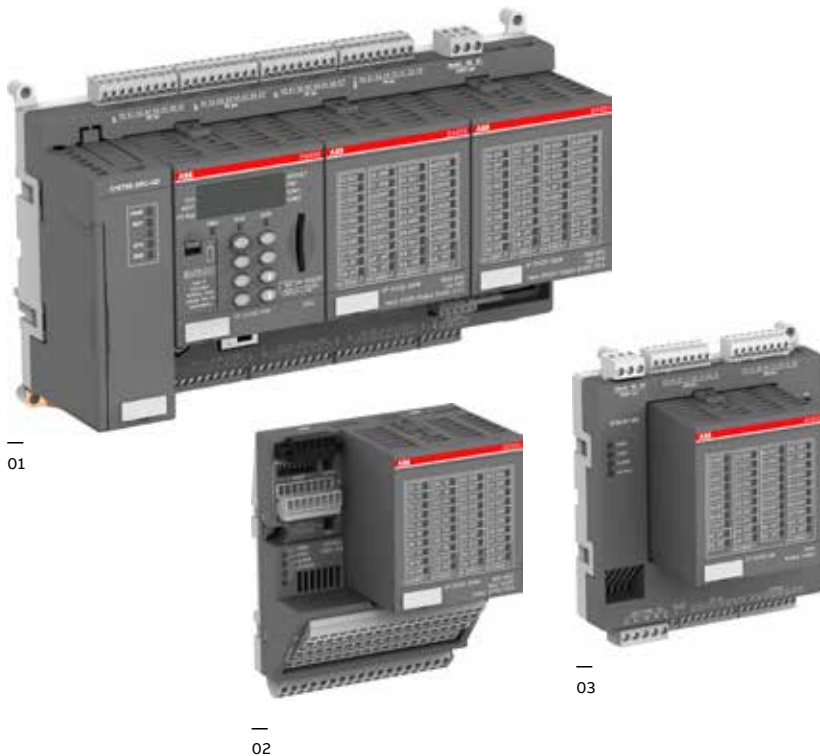


PLC AUTOMATION

# AC31 adapter for retrofitting AC500 life cycle management



- 01 07KT98-ARC-AD
- 02 DC501-CS31-AD
- 03 07AC91-AD

For the protection of your investments and for ease of migration to the new AC500 PLC generation, ABB provides AC31 adapter modules based on AC500.

The modules have the same footprint, cabling and features as the previous AC31 series 90 products with up-to-date AC500 hardware.

AC31 adapter modules can replace existing AC31 devices with either direct compatible e.g. I/O modules or need adjustments with a new user program for the CPU using Automation Builder software.

### Main characteristics and architecture

The connection locations do not differ from the predecessor hardware and the number or type of I/O channels are comparable. For remote I/O products on the CS31 bus, I/Os of an existing field application

can be modified without having to change the application or configuration. New modules can be configured with DIP switches.

Replacing the AC31 PLC with the 07KT98-x-AD PLC requires to rewrite the application program using the Automation Builder engineering suite.

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### Advantages at a glance

- Compatible with the existing AC31 series 90 remote I/O-modules, in some cases with 1-to-1 replacement in the field, no change of application configuration required.
- Footprint identical to predecessor hardware.
- Automation Builder for PLC programming.
- Standard AC500 modules for seamless migration from AC31 to the new AC500.
- Longer life cycle of AC31 through migration to new solution.

## AC31 adapter for spare parts

### AC500 life cycle management

Under certain conditions, the AC31 adapter I/O modules may be used as spare parts for existing applications where the previous AC31 modules were installed. The AC31 adapter modules can normally replace old modules without any changes in the configuration or application.

The new module is configured with DIP switches, the old one removed, the new one installed and the application started again.

The modules have the same footprint, cabling position and channel assignment. The AC31 adapter module supports most of the previous functionalities of the old module. There are only a few exceptions and minor differences that are listed below:

- The AC31 adapter I/O modules can only be used, supported and tested with ABB AC31 master devices and cannot run with third party controllers.



- The AC31 adapter modules are based on standard AC500 I/O modules and on a specific electronic base, the modules cannot be purchased separately and are always delivered as complete devices. The pluggable electronic module cannot be replaced separately without the base.

For special applications, further details or specific questions regarding compatibility, please contact your local sales organization.

#### Replacement table and compatibility information

Previous AC31 I/O module			New AC31 adapter module			Difference in feature / feature not supported
PN	Type designation	I/O combination	PN	Type designation	I/O combination supported	
GJR5251400R0202	07DC91	16DI/8DO/8DC	1SAP800300R0010	07DC91-AD	16DI/16DC	No local test button, compatible with basic diagnostics only.
GJR5252200R0202	07DC92	32DC	1SAP800500R0010	07DC92-AD	32DC	Same electrical potential for all channels (no group isolation), input current only max. 2 mA per channel, max. 8 A current sum for all outputs, no local test button, compatible with basic diagnostics only.
GJR5251600R0202	07AI91	8 AI, U/I PT100 and thermocouple	1SAP800200R0010	07AI91-AD	8AI	Standard analog voltage or current inputs, PT100/1000 only up to 3-wire connection, no thermocouple support, linear approximation always on, no test button, only standard as in 07AI91.
GJR5252300R0101	07AC91	16 AC or 8 AI/8 AO	1SAP800000R0010	07AC91-AD	16AO	No 16 AI inputs but only 16 AO in 16 AC configuration, no local test button, compatible with basic diagnostics only.
			1SAP800100R0010	07AC91-AD2	8AI/8AO	No local test button, compatible with basic diagnostics only.

#### New AC31 adapter PLC module

PN	Type designation	Communication	I/O combination supported	Difference in feature / feature not supported
1SAP801400R0060	07KT98-ARC-AD	ARCNET	16DI/16DO/16DC/8AI/4AO	Programming using Automation Builder software means that old AC31 user applications must be re-written and direct import of the old program is not possible. Libraries are different and not all features are supported. Only PROFIBUS DP Master is supported. Same footprint and I/O channel position as old AC31 07KT98 CPU.
1SAP801100R0062	07KT98-ARC-DP-AD	ARCNET, PROFIBUS DP Master	16DI/16DO/16DC/8AI/4AO	
1SAP801200R0062	07KT98-ARC-ETH-AD	ARCNET, Ethernet TCP/IP	16DI/16DO/16DC/8AI/4AO	
1SAP801300R0072	07KT98-ETH-DP-AD	Ethernet TCP/IP, PROFIBUS DP Master	16DI/16DO/16DC/8AI/4AO	
1SAP801500R0062	07KT98-ARC-ETH-DP-AD	ARCNET, Ethernet TCP/IP, PROFIBUS DP Master	16DI/16DO/16DC/8AI/4AO	

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