

## Advantech ADAM 4000 & 6000 Series remote data acquisition and control systems

The **ADAM series** modules are compact, versatile sensor-to-computer interface units designed specifically for reliable operation in harsh environments. Their built-in microprocessors, encased in rugged industrial grade plastic, independently provide intelligent signal conditioning, analog I/O and digital I/O via RS-485 serial or Ethernet communications.



### Remotely programmable input ranges

The ADAM series modules stand out because of their ability to accommodate multiple types and ranges of input. The type and range can be remotely selected by issuing commands from a host computer. One type of module satisfies many different tasks, which greatly simplifies design and maintenance. A single kind of module can handle the measurement needs of a whole plant. Since all the modules are remotely configured by the host computer, physical adjustments are unnecessary.

### Distributed I/O over Ethernet

The ADAM-6000 Ethernet-enabled data acquisition and control module works as an Ethernet I/O data processing center. This new product is not only a standard I/O, but also an intelligent system designed with local control functions and a MODBUS/TCP standard for users to easily develop various applications over Ethernet.



ADAM-6017

### Watchdog timer inside

A watchdog timer supervisory function will automatically reset the ADAM series modules if required, which reduces the need for maintenance.

### Modular industrial design

The ADAM series modules offer flexible mounting options, including DIN rail mounting, panel mounting or piggybacking. Signal connections are made through plug-in screw terminal blocks, ensuring simple installation, modification and maintenance.

### Ready for the industrial environment

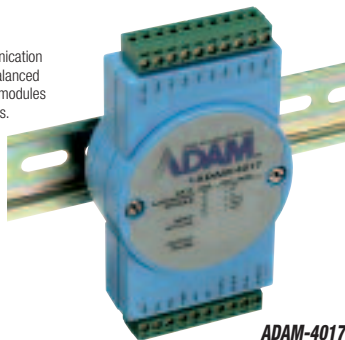
The ADAM series modules accept any unregulated power source between 10 and 30 VDC. They are protected from accidental power supply reversals and can be safely connected or disconnected without disturbing a running network.

### Common Features

- 10/100 Mbps Ethernet
- Web browser
- MODBUS/TCP compatible
- DIN rail, panel and piggy back mountable
- 10 to 30 VDC power input
- 2000 Vrms isolation between the I/O and Ethernet port

### Distributed I/O over RS-485

The ADAM-4000 series modules use the RS-485 communication protocol, the industry's most widely used bi-directional, balanced transmission line standard. It lets the ADAM-4000 series modules transmit and receive data at high rates over long distances.



ADAM-4017

### Common Features

- Built specifically for harsh environments
- DIN rail, panel and piggy back mountable
- Built-in microprocessors
- 10 to 30 VDC power input
- Built-in watchdog timer
- MODBUS support on many models

### Analog input modules over RS-485

Model No.	Analog Inputs	Sensor	Digital Input Range	Input/Output / Output	Notes	Modbus Support	Price
ADAM-4011	1	Thermocouple	±15 mV to ±1-2.5V	1 / 2	Burn-out detection	-	\$215.00
ADAM-4011D	1	Thermocouple	±15 mV to ±1-2.5V	1 / 2	-	-	\$265.00
ADAM-4012	1	-	±150 mV to ±10V	1 / 2	-	-	\$215.00
ADAM-4013	1	RTD	Pt or Ni	-	-	-	\$205.00
ADAM-4015	6	RTD	PT or NI or Balco	-	Burn-out detection	Yes	\$410.00
ADAM-4015T	6	Thermistor	3 K or 10 K thermistr	-	Burn-out detection	Yes	\$395.00
ADAM-4016	1	-	±15 mV to ±500 mV	0 / 2	1 Analog out	-	\$240.00
ADAM-4017	8	-	±150 mV to ±10V	-	-	-	\$240.00
ADAM-4017+	8	-	±150 mV to ±10V	-	-	Yes	\$320.00
ADAM-4018	8	Thermocouple	±15 mV to ±2.5V	-	-	-	\$250.00
ADAM-4018+	8	Thermocouple	±15 mV to ±2.5V	-	Burn-out detection	Yes	\$340.00
ADAM-4018M	8	Thermocouple	±15 mV to ±2.5V	-	Data logger	-	\$480.00
ADAM-4019	8	Thermocouple	±100 mV to ±10V	-	-	-	\$445.00
ADAM-4019+	8	Thermocouple	±100 mV to ±10V	-	Burn-out detection	Yes	\$420.00

### Analog output modules over RS-485

Model No.	Analog Inputs	Output Voltage	Output Current	Analog Inputs	Digital input / Output	Notes	Price
ADAM-4021	1	0 to 10 V	0 to 20 mA or 4 to 20 mA	-	-	-	\$215.00
ADAM-4022T	2	0 to 10 V	0 to 20 mA or 4 to 20 mA	4 - Thermistor / RTD	2 / 2	PID loop controller	\$420.00
ADAM-4024	4	±10 V	0 to 20 mA or 4 to 20 mA	-	4 / 0	Modbus support	\$330.00

### Digital input / output modules over Ethernet

Model No.	Digital Input	Digital Output	Counter	Output Type	Price
ADAM-6050	12	6	-	Open Collector	\$215.00
ADAM-6051	12	2	2 (32 bit)	Open Collector	\$215.00
ADAM-6052	8	8	-	Source type	\$235.00
ADAM-6060	6	6 Relay	-	Relay form A	\$235.00
ADAM-6066	6	6 High Power relay	-	Relay form A	\$250.00

### Analog input modules over Ethernet

Model No.	Resolution	Channel	Digital Input/Output	Sensor	Analog Input	Notes	Price
ADAM-6015	16 bit	7 diff.	-	RTD	-	Pt, Balco & Ni Rtd	\$420.00
ADAM-6017	16 bit	8 diff.	0/2	-	±150 mV to ±10V	-	\$350.00
ADAM-6018	16 bit	8 diff.	0/8	Thermocouple	±15 mV to ±1-2.5V	J,K,T,E,R,S,B,Thermocouple	\$500.00

### Analog output modules over Ethernet

Model No.	Analog Output	Digital Input / Output	Voltage	Input / Output	Notes	Price
ADAM-6022	12 bit	2	0-10 VDC	6 diff. (16 bit)	2/2 Dual Loop PID Cont.	\$475.00
ADAM-6024	12 bit	2	0-10 VDC	6 diff. (16 bit)	2/2	\$535.00

### Digital input/output modules over RS-485

Model No.	Input	Output	Counter	Notes	Modbus Support	Price
ADAM-4050	7	8	-	-	-	\$135.00
ADAM-4051	16	-	-	Isolated w/display	Yes	\$165.00
ADAM-4052	8	-	-	Isolated	-	\$135.00
ADAM-4053	16	-	-	-	-	\$150.00
ADAM-4055	8	8	-	Isolated	Yes	\$165.00
ADAM-4056S	-	12	-	Isolated (sink type)	Yes	\$155.00
ADAM-4056SO	-	12	-	Isolated (source type)	Yes	\$185.00
ADAM-4060	-	4	-	Relay 2 form A & 2 form C	-	\$160.00
ADAM-4068	-	8	-	Relay 4 form A & 2 form C	Yes	\$195.00
ADAM-4080	-	2	2	Counter (32 bit)	-	\$215.00
ADAM-4080D	-	2	2	Counter (32 bit) w/display	-	\$315.00

HST, PST AND GST NOT INCLUDED IN PRICES SHOWN

To Order: **1-800-668-3282**

Fax: **1-800-668-3900**  
E-Mail: **sales@altecon.com**



## 1 Select base modules

- All base modules are expandable up to 44 I/O
- 10, 12 and 20 I/O combinations
- AC or DC powered options
- Standard discrete inputs or high speed discrete inputs
- 8A relay outputs or transistor outputs
- Choose high speed PWM output for position control
- Up to 4 analog inputs
- Modbus communications available on base module to link multiple controllers together
- Real Time Clock included on all modules
- LCD and keypad included on all modules

Model No.	AC Power 100-240	DC Power DC 24V	Discreet Inputs	Analog Outputs	Relay Outputs	Transistor Outputs	Real Time Clock	LCD Display	Keypad	1 KHz Input	PMW Output	Modbus Data Link	Price
SG2-10HR-A	Yes	-	6	-	4	-	Yes	Yes	Yes	-	-	-	\$123.25
SG2-12HR-D	-	Yes	8	2	4	-	Yes	Yes	Yes	Yes	-	-	\$120.00
SG2-12HT-D	-	Yes	8	2	-	4	Yes	Yes	Yes	Yes	Yes	-	\$120.00
SG2-20HR-A	Yes	-	8	-	8	-	Yes	Yes	Yes	-	-	-	\$180.00
SG2-20HR-D	-	Yes	8	4	8	-	Yes	Yes	Yes	Yes	-	-	\$165.00
SG2-20HT-D	-	Yes	8	4	-	8	Yes	Yes	Yes	Yes	Yes	-	\$180.00
SG2-20VR-D	-	Yes	8	4	8	-	Yes	Yes	Yes	Yes	Yes	Yes	\$180.00
SG2-20VT-D	-	Yes	8	4	-	8	Yes	Yes	Yes	Yes	Yes	Yes	\$190.00

## 2 Select expansion modules

- Build your PLC up to 44 I/O points with the modules below
- Up to 3 expansion modules may be connected to the base module
- Each module is individually powered to provide complete isolation
- The base module automatically reads the expansion modules and assigns the programming registers.



Model No.	AC Power 100-200	DC Power DC 24V	Discrete Inputs	Analog Inputs	Relay Outputs	Transistor Outputs	Price
SG2-8ER-D	-	Yes	4	-	4	-	\$71.50
SG2-8ER-A	Yes	-	4	-	4	-	\$90.00
SG2-8ET-D	-	Yes	4	-	-	4	\$77.50
SG2-4AI	-	Yes	-	4	-	-	\$142.50

\* For linking multiple units together with addressing

## 3 Select Communication modules

To remotely communicate to the controller or integrate the PLC into any existing network, add a communication module. Combine these modules with existing B&B electronics communication devices, and you have the most powerful programmable relay controller on the market today.

Currently MODBUS and Profibus are offered, and Devicenet and Ethernet will be available soon.



SG2-MODBUS

Model No.	Description	Price
SG2-MODBUS	Modbus communication module for SG2 Controller	\$180.00
SG2-DEVICENET	Devicenet communication module for SG2 Controller	\$202.00
SG2-ETHERNET	Ethernet communication module for SG2 Controller	Available SOON!

## 4 Select software and accessories

Now that you have completed your controller, there are accessories available. The free programming software is downloadable at [www.bb-elec.com/controllers](http://www.bb-elec.com/controllers).

The controller may be programmed via a computer.

Depending on your system, you probably will need a programming cable that comes with a CD with software included.

Lastly, a memory pack is available for all base modules. The memory pack, similar to a thumb drive on your personal computer, will store the program in your controller. This may serve as a backup in case something bad happens. For an OEM, this can provide labor savings as the memory pack may be used to download the same program in multiple controllers.



Model No.	Description	Price
SG2-PROGKIT	Programming software CD & Serial programming Cable for SG2 used on Computer	\$37.50
SG2-PL01	Programming Cable for SG2	\$23.75
SG2-PM05	Memory pack storage module for SG2	\$17.50

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