



## **Model ADAM-6018**

# **Accurate and Reliable Thermocouple Measurement for Industrial Automation**

### **8-Channel Thermocouple Input with DO Module**

#### **Overview**

The ADAM-6018 8-channel thermocouple input module is the most prevailing temperature sensor in today's industrial automation market. In addition to 8 T/C input channels, the ADAM-6018 is also equipped with 8 digital output channels such as auxiliary alarm outputs or pure outputs. It also comes with an external DIN-rail terminal board for wiring between the ADAM-6018 module and the field sensor. This special wiring mechanism greatly enhances the accuracy and reliability for thermocouple measurement in environmental and facility monitoring applications.

#### **Features**

- I/O type: 8 thermocouple and 8 digital output
- 10/100 Based-T Ethernet
- Supports multi-channel/multi-range
- Provides default/customized web page
- 2,500 VDC optical isolation
- Built-in watchdog timer

#### **Specifications**

##### **Communication**

Ethernet interface: RJ45  
 Speeds: 10/100 Mbps  
 Max. Communication distance: 333 feet (100m), can be extended by using switch hub  
 Power and communication LED indicator  
 TCP/IP, UDP, MODBUS/TCP supported  
 Online module insertion and removal

Channels: 8 differential  
 Effective Resolution: 16-bit  
 Input Type: Thermocouple  
 Thermocouple Type and Range:

J	0	~	760°C
K	0	~	1370°C
T	-100	~	400°C
E	0	~	1000°C
R	500	~	1750°C
S	500	~	1750°C
B	500	~	1800°C

Isolation Voltage: 2000VDC  
 Fault and Overvoltage Protection: Withstands overvoltage up to  $\pm 35$  V  
 Sampling Rate: 10 samples / sec.  
 Input Impedance: 10K $\Omega$   
 Bandwidth: 13.1 Hz @ 50 Hz.  
 15.72 Hz @ 60 Hz  
 Accuracy:  $\pm 0.1\%$  or better  
 Zero Drift:  $\pm 6 \mu\text{V}/^\circ\text{C}$   
 Span Drift:  $\pm 25 \text{ ppm}/^\circ\text{C}$   
 CMR @ 50/60 Hz: 92 dB min.

International Headquarters:

**B & B Electronics Mfg. Co.** 707 Dayton Road P.O. Box 1040 Ottawa, IL 61350 USA  
 815-433-5100 Fax 433-5104 [www.bb-elec.com](http://www.bb-elec.com) [orders@bb-elec.com](mailto:orders@bb-elec.com) [support@bb-elec.com](mailto:support@bb-elec.com)

**B & B Electronics Ltd** Westlink Commercial Park Oranmore Co. Galway Ireland  
 +353 91 792444 Fax +353 91 792445 [www.bb-europe.com](http://www.bb-europe.com) [orders@bb-elec.com](mailto:orders@bb-elec.com) [support@bb-europe.com](mailto:support@bb-europe.com)

Digital Output:  
 Channels: 8  
 Open collector to 30 V, 100 mA max. load  
 Optical Isolation: 2000V RMS  
 Power: Requirements: Unregulated 10 to 30 VDC (Protects against power reversal)  
 Power Consumption: 2 W

**Mechanical**

Case: ABS with captive mounting hardware  
 Plug-in screw terminal block: Accepts 0.5 to 2.5 mm<sup>2</sup>, 1 - #12 or 2 - #22 AWG

**Environment**

Operating Temperature: -10 to 70°C (14 to 158°F)  
 EMI: Meets FCC Class A  
 Storage Temperature: -20 to 80°C (-13 to 185°F)  
 Humidity: 5 to 95%, non-condensing

**Ordering Information**

<u>Model #:</u>	<u>Description:</u>
ADAM-6018 .....	8-channel T/C Input with Digital Output Module

International Headquarters:

**B & B Electronics Mfg. Co.** 707 Dayton Road P.O. Box 1040 Ottawa, IL 61350 USA  
 815-433-5100 Fax 433-5104 [www.bb-elec.com](http://www.bb-elec.com) [orders@bb-elec.com](mailto:orders@bb-elec.com) [support@bb-elec.com](mailto:support@bb-elec.com)

**B & B Electronics Ltd** Westlink Commercial Park Oranmore Co. Galway Ireland  
 +353 91 792444 Fax +353 91 792445 [www.bb-europe.com](http://www.bb-europe.com) [orders@bb-elec.com](mailto:orders@bb-elec.com) [support@bb-europe.com](mailto:support@bb-europe.com)