ADAM-518
ADAM-518E

24-ch RS-485 T/C Input Module

24-ch Ethernet T/C Input Module



Features

- 24-channel thermocouple input reduces module count, saving wiring and cabinet space
- Supports widely used thermocouple types for general industrial and environmental applications
- Thermocouple type and input range can be easily configured using ADAM Utility with no programming required
- Delivers 16-bit resolution and ±0.5 °C CJC accuracy for stable and precise measurements
- Wide temperature measurement range supports a variety of application needs
- Dual LAN ports support Ethernet daisy-chain connection to simplify wiring and reduce switch costs (ADAM-518E)
- Auto-bypass keeps network connection during power loss, reducing downtime and maintenance costs (ADAM-518E)
- Built-in Graphic Condition Logic (GCL) allows simple control logic to run directly on the module without a PLC or PC (ADAM-518E)

Introduction

ADAM-518/E features 24-channel thermocouple inputs, supports wide temperature measurement range with high Accuracy, positioning itself as an ideal solution for applications requiring precise temperature monitoring across multiple points.

24-Ch T/C Input Module Comparison Table

Model		ADAM-518	ADAM-518E
Communication	Physical interface	RS-485	10/100 Base-T Ethernet
	Protocols	ADAM ASCII, Modbus/RTU	ADAM ASCII, Modbus/TCP
	Speeds	Max. 115200 bps	10/100 Mbps
	Max. bus length	1200m (depends on bus topology and communication speed)	100m (can use an Ethernet switch hub to extend)
	Daisy Chain	-	Supported
	Auto-bypass	-	Supported
Thermocouple Input	Channels	24 differential and independent configurable channels	
	Input Impedance	20 MΩ	
	CJC sensor accuracy	±0.5 °C	
	Resolution	16 bits	
	Sampling Rate	10/100 SPS	10/100/160 SPS

Thermocouple Input Range				
T/C Type	Measurement Range (°C)	Reference Accuracy @ 25°C	Temperature Drift °C/°C (ppm/°C)	
		10 SPS	10 SPS	
K	-200 ~ +1370°C	±0.5 °C	±0.047 °C (±30ppm/ °C)	
J	-200 ~ +0°C	±0.8 °C	±0.042 °C (±30ppm/ °C)	
	0 ~ +1200°C	±0.5 °C		
T	-200 ~ -100°C	±1.0 °C	±0.060 °C (±100ppm/ °C)	
	-100 ~ +400°C	±0.6 °C	±0.030 °C (±50ppm/ °C)	
E	-200 ~ +0°C	±0.8 °C	±0.036 °C (±30ppm/ °C)	
	0 ~ +1000°C	±0.5 °C		
N	-200 ~ -100°C	±1.0 °C	±0.120 °C (±80ppm/ °C)	
	-100 ~ +1300°C	±0.6 °C	±0.060 °C (±40ppm/ °C)	
R	-50 ~ +0°C	±2 °C	±0.214 °C (±120ppm/ °C)	
	0 ~ +1750°C	±0.5 °C	±0.214 °C (±120ppm/ °C)	
			±0.089 °C (±50ppm/ °C)	
S	-50 ~ +1750°C	±0.5 °C	±0.178 °C (±100ppm/ °C)	
			±0.178 °C (±100ppm/ °C)	
			±0.071 °C (±40ppm/ °C)	
B	+200 ~ +500°C	±1.2 °C	±0.080 °C (±50ppm/ °C)	
	+500 ~ +1800°C	±0.5 °C		

All product specifications are subject to change without notice.

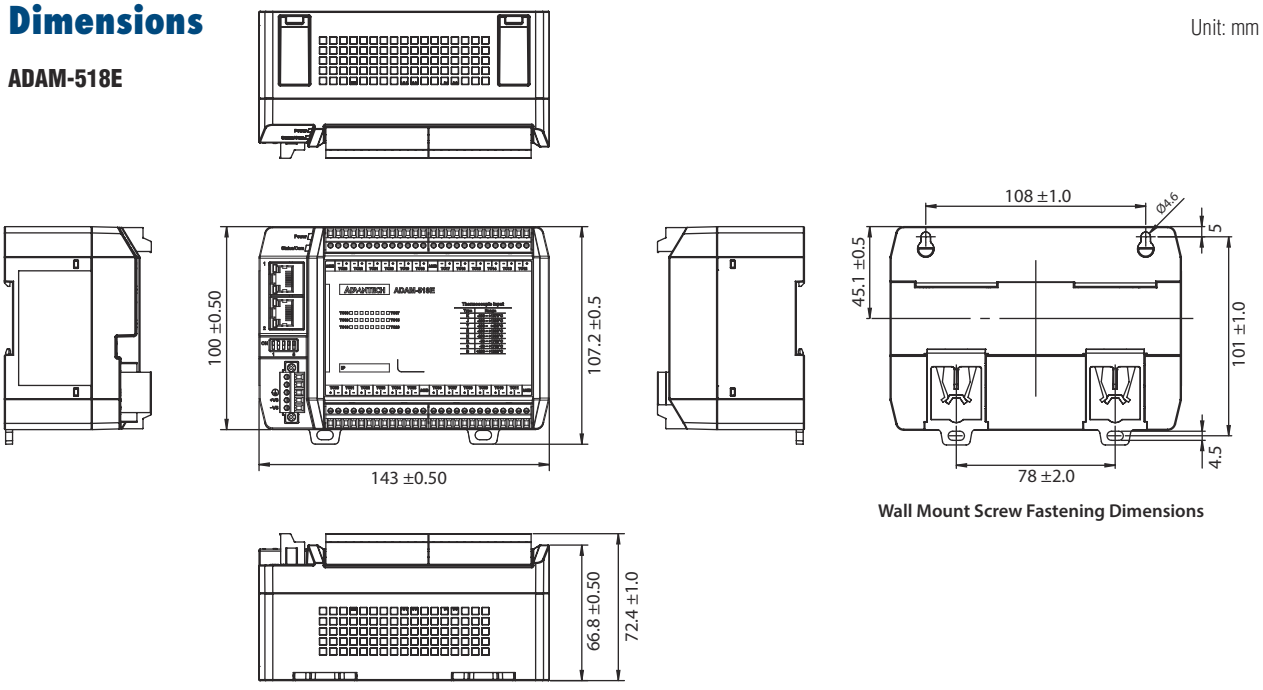
24-Ch T/C Input Module Comparison Table (Cont.)

Model		ADAM-518	ADAM-518E
Power Input		10 ~ 30 V_{DC}, 24V_{DC} nominal	
Power Consumption (typical)		1.2W @ 24V_{DC}	2W @ 24V_{DC}
Protection Circuit		Reverse Voltage Protection	
Screw Terminal Connector	Power RS-485 (ADAM-518)	1 x 5P / 3.81mm	
	I/O	4 x 13P / 3.81mm	
DIP Switch		ID configuration (0~31)	static IP / DHCP switching
Watchdog Timer		System (1.6 second) & Communication	
ESD Protection		ESD ±4kV (contact) / ±8kV (air); EFT ±1kV; Surge ±1kV	
Isolation Voltage		3,000 V_{DC}	
Environment	Operating Temperature	-10 ~ 70 °C (14 ~ 158 °F)	
	Storage Temperature	-25 ~ 85 °C (-13 ~ 185 °F)	
	Operating Humidity	5 ~ 95% RH	
Material		Polycarbonate	
Mounting		DIN rail Mounting (Top Hat 7.5mm & 15mm), Wall Mounting	
Dimension	With DIN rail kit	143 x 107.2 x 72.4 mm	
	Without DIN rail kit	143 x 100 x 66.8 mm	
Regulatory / Approvals / Certifications		FCC, CE, RoHS, REACH, WEEE	

Dimensions

ADAM-518E

Unit: mm



Wall Mount Screw Fastening Dimensions

Ordering Information

Part Number to Order	Description
ADAM-518-A	24 ch RS-485 T/C Input Module
ADAM-518E-A	24-Ch Ethernet T/C Input Module