

ADAM-4118

ADAM-4150

ADAM-4168

Robust 8-ch Thermocouple Input Module with Modbus®

Robust Digital I/O Module with Modbus

Robust Relay Output Module with Modbus



ADAM-4118



ADAM-4150



ADAM-4168



Specifications

General

- Power Consumption 0.5W @ 24 V_{DC}

Analog Input

- Channels 8 differential and independent configuration channels
- Input Impedance Voltage: 20 M Ω
Current: 120 Ω
- Input Type T/C, mV, V, mA
- Input Range Thermocouple
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
- Voltage mode ± 15 mV, ± 50 mV, ± 100 mV, ± 500 mV, ± 1 V, ± 2.5 V
- Current mode ± 20 mA, 4 ~ 20 mA
- Accuracy Voltage mode: $\pm 0.1\%$ or better
Current mode: $\pm 0.2\%$ or better
- Resolution 16-bit
- Sampling Rate 10/100 samples/sec (selected by Utility)
- CMR @ 50/60 Hz 92 dB
- NMR @ 50/60 Hz 60 dB
- Overvoltage Protection ± 60 V_{DC}
- High Common Mode 200 V_{DC}
- Span Drift ± 25 ppm/°C
- Zero Drift $\pm 6\mu$ V/°C
- Built-in TVS/ESD Protection

Ordering Information

- ADAM-4118 Robust 8-ch Thermocouple Input Module with Modbus®
- ADAM-4150 Robust Digital I/O Module with Modbus
- ADAM-4168 Robust Relay Output Module with Modbus

Specifications

General

- Power Consumption 0.7 W @ 24 V_{DC}

Digital Input

- Channels 7
- Input Level Dry contact: Logic level 0: Close to GND
Logic level 1: Open
Wet contact: Logic level 0: +3 V max
Logic level 1: +10 V to +30 V
(Note: The Digital Input Level 0 and 1 status can be inverted)
- Support 3 kHz Counter Input (32-bit + 1-bit overflow)
- Support 3 kHz Frequency Input
- Support Invert DI Status

Digital Output

- Channels 8, open collector to 40 V (1 A max. load)
- Power Dissipation 1W load max
- Ron Maximum 150 m Ω
- Support 1 kHz Pulse Output
- Support High-to-Low Delay Output
- Support Low-to-High Delay Output

Common Specifications

- Power Input Unregulated 10 ~ 48 V_{DC}
- Watchdog Timer System (1.6 second) & Communication
- Connector 2 x Plug-in terminal blocks (#14 ~ 22 AWG)
- Isolation Voltage 3000 V_{DC}
- Support Protocol ASCII Command and Modbus/RTU

Specifications

General

- Power Consumption 1.8 W @ 24 V_{DC}

Relay Output

- Output Channels 8 Form A
- Contact Rating (Resistive) AC: 0.5 A @ 120 V
0.25 A @ 240 V
DC: 1 A @ 30 V
0.3 A @ 110 V
- Breakdown Voltage 750 V_{AC} (50/60 Hz)
- Initial Insulation Resistance 1 G Ω min. @ 500 V_{DC}
- Relay Response Time (Typical) On: 3ms
Off: 1ms
- Total Switching Time 10 ms
- Supports 100 Hz pulse output

Environment

- Humidity 5 ~ 95% RH
- Operating Temperature -40 ~ 85 °C
(-40 ~ 185° F)
- Storage Temperature -40 ~ 85 °C
(-40 ~ 185° F)