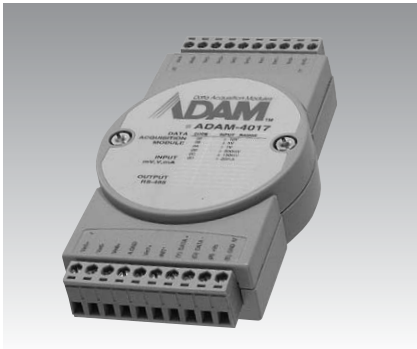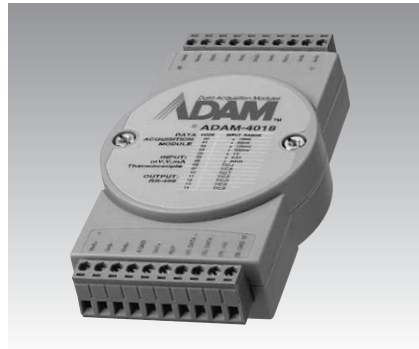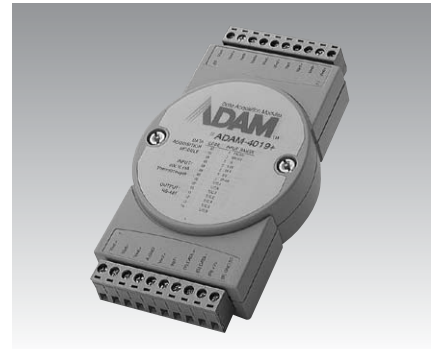# ADAM-4017/4017+
ADAM-4018/4018+
ADAM-4019+

8-ch Analog Input Modules with Modbus®

8-ch Thermocouple Input Modules with Modbus

8-ch Universal Analog Input Module with Modbus

ADAM-4017/4017+	RoHS COMPLIANT 2002/95/EC	CE FCC	c UL us LISTED E180889 I7Z	FM APPROVED
ADAM-4018/4018+	RoHS COMPLIANT 2002/95/EC	CE FCC	FM APPROVED
ADAM-4019+	RoHS COMPLIANT 2002/95/EC	CE FCC

Specifications

General

- **Power Consumption** — 1.2 W @ 24 V$_{DC}$
- **Watchdog Timer** — ADAM-4017: System (1.6 second) ADAM-4017+: System (1.6 second) & Communication
- **Support Protocol** — ASCII command (ADAM-4017) ASCII command and Modbus/RTU (ADAM-4017+)

Analog Input

- **Channels** — ADAM-4017: 6 differential, and 2 single-ended ADAM-4017+: 8 differential
- **Channel Independent Configuration** — ADAM-4017+ only
- **Input Impedance** — Voltage: 20 MΩ Current: 120 Ω (4017+ only)
- **Input Type** — mV, V, mA
- **Input Range**
  ADAM-4017 — ±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V, ±20 mA
  ADAM-4017+ — ±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V, ±20 mA, 4 ~ 20 mA

Specifications

General

- **Power Consumption** — 0.8 W @ 24 V$_{DC}$
- **Watchdog Timer** — ADAM-4018: System (1.6 second) ADAM-4018+: System (1.6 second) & Communication
- **Support Protocol** — ASCII command (ADAM-4018) ASCII command and Modbus/RTU (ADAM-4018+)

Analog Input

- **Channels** — ADAM-4018: 6 differential, and 2 single-ended ADAM-4018+: 8 differential
- **Channel Independent Configuration** — ADAM-4018+ only
- **Input Impedance** — Voltage: 20 MΩ Current: 120 Ω (4018+ only)
- **Input Type** — ADAM-4018 Thermocouple, mV, V, mA ADAM-4018+ Thermocouple, mA
- **Voltage/Current Input Range** — ADAM-4018 ±15 mV, ±50 mV, ±100 mV, ±500 mV, ±1 V, ±2.5 V, ±20 mA ADAM-4018+ ±20 mA, 4 ~ 20 mA
- **T/C Types and Temperature Ranges**

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

- **Burn-out Detection** — All T/C (ADAM-4018+ only)

Specifications

General

- **Power Consumption** — 1.0 W @ 24 V$_{DC}$
- **Watchdog Timer** — System (1.6 second) & Communication
- **Support Protocol** — ASCII command and Modbus/RTU

Analog Input

- **Channels** — 8 differential channels for individual input type
- **Channel Independent Configuration** — Yes
- **Input Impedance** — Voltage: 20 MΩ Current: 120 Ω
- **Input Type** — T/C, mV, V, mA
- **Voltage/Current Input Range** — ±1 V, ±2.5 V, ±5 V, ±10 V, ±100 mV, ±500 mV, ±20 mA, 4 ~ 20 mA
- **T/C Types and Temperature Ranges**

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

- **Burn-out Detection** — 4 ~ 20 mA & all T/C

Common Specifications

General

- **Power Input** — Unregulated 10 ~ 30 V$_{DC}$
- **Connectors** — 2 x Plug-in terminal block (#14 ~ 22 AWG)

Analog Input

- **Accuracy** — Voltage mode: ±0.1% or better Current mode: ±0.2% or better
- **Resolution** — 16-bit
- **Sampling Rate** — 10 sample/second (total)

- **Isolation Voltage** — 3000 V$_{DC}$
- **Overvoltage Protection** — ±35 V$_{DC}$
- **CMR @ 50/60 Hz** — 120 dB
- **NMR @ 50/60 Hz** — 100 dB
- **Span Drift** — ±25 ppm/° C
- **Zero Drift** — ±6 µV/° C
- **Built-in TVS/ESD Protection**

Environment

- **Humidity** — 5 ~ 95% RH
- **Operating Temperature** — -10 ~ 70° C (14 ~ 158° F)
- **Storage Temperature** — -25 ~ 85°C (-13 ~ 185° F)

Ordering Information

- **ADAM-4017** — 8-ch Analog Input Module
- **ADAM-4017+** — 8-ch Analog Input Module with Modbus
- **ADAM-4018** — 8-ch Thermocouple Input Module
- **ADAM-4018+** — 8-ch Thermocouple Input Module with Modbus
- **ADAM-4019+** — 8-ch Universal Analog Input Module with Modbus