ADAM-4011/4011D
ADAM-4012
ADAM-4013

1-ch Thermocouple Input Modules (with 7-segment LED Display)

1-ch Analog Input Module
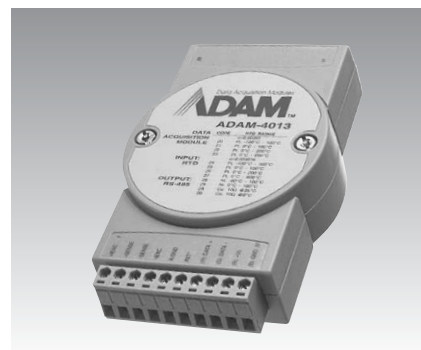
1-ch RTD Input Module

ADAM-4011/4011D   CE   FM APPROVED

ADAM-4012   RoHS COMPLIANT 2002/95/EC   CE   FM APPROVED

ADAM-4013   RoHS COMPLIANT 2002/95/EC   CE   FM APPROVED

Specifications

General
- **Power Consumption**   1.4 W @ 24 V$_{DC}$
- **Support Protocol**   ASCII command
- **LED Indicators**   5-digit (ADAM-4011D)

Analog Input
- **Channels**   1
- **Input Impedance**   Voltage: 2 MΩ
  Current: 125 Ω
  (Added by users)
- **Input Type**   T/C, mV, V or mA
- **Input Range**   ±15 mV, ±50 mV, ±100 mV,
  ±500 mV, ±1 V,
  ±2.5 V, ±20 mA
- **Accuracy**   Voltage mode: ±0.1% or
  better
  Current mode: ±0.2% or
  better

- **T/C Type and Temperature Range**

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		

- **Span Drift**   ±25 ppm/° C
- **Zero Drift**   ±6 µV/° C
- **Wire Burnout Detector**   ADAM-4011D only

Digital Input
- **Channels**   1
  Logic level 0: 1 V max.
  Logic level 1: 3.5 ~ 30 V
  Pull up current: 0.5 mA,
  10 kΩ resistor to +5 V
- **Event Counter**   Max. input freq: 50 Hz

Digital Output
- **Channels**   2, open collector to
  30 V, 30 mA max. load
- **Power Dissipation**   300 mW

Specifications

General
- **Power Consumption**   1.2 W @ 24 V$_{DC}$
- **Support Protocol**   ASCII command

Analog Input
- **Channels**   1
- **Input Impedance**   Voltage: 20 MΩ
  Current: 125 Ω
  (Added by users)
- **Input Type**   mV, V or mA
- **Input Range**   ±150 mV, ±500 mV, ±1
  V, ±5 V, ±10 V and ±20
  mA
- **Accuracy**   Voltage mode: ±0.1% or
  better
  Current mode: ±0.2%
  or better
- **Span Drift**   ±25 ppm/° C
- **Zero Drift**   ±6 µV/° C

Digital Input
- **Channels**   1
  Logic level 0: +1 V max.
  Logic level 1: 3.5 ~ 30 V
  pull up current: 0.5 mA,
  10 kΩ resistor to +5 V
  Max. input freq.: 50 Hz
- **Event Counter**   Min. input pulse width:
  1 msec.

Digital Output
- **Channels**   2, open collector to 30
  V, 30 mA max. load
- **Power Dissipation**   300 mW

Specifications

General
- **Power Consumption**   0.7 W @ 24 V$_{DC}$
- **Support Protocol**   ASCII command

Analog Input
- **Channels**   1
- **Input Connections**   2, 3, or 4-wire
- **Input Impedance**   2 MΩ
- **Input Type**   Pt or Ni RTD
- **RTD Types and Temperature Ranges**

IEC RTD 100 ohms

Pt	-100° C	to	+100° C	a = 0.00385
Pt	0° C	to	+100° C	a = 0.00385
Pt	0° C	to	+200° C	a = 0.00385
Pt	0° C	to	+600° C	a = 0.00385

JIS RTD 100 ohms

Pt	-100° C	to	+100° C	a = 0.003916
Pt	0° C	to	+100° C	a = 0.003916
Pt	0° C	to	+200° C	a = 0.003916
Pt	0° C	to	+600° C	a = 0.003916

Ni RTD

Ni	-80° C	to	+100° C	
Ni	0° C	to	+100° C	

- **Accuracy**   ±0.1% or better
- **Span Drift**   ±25 ppm/° C
- **Zero Drift**   ±3 µV/° C

Common Specifications

General
- **Power Input**   Unregulated 10~30 V$_{DC}$
- **Connectors**   1 x Plug-in terminal
  blcok (#14 ~ 22 AWG)
- **Watchdog Timer**   System (1.6 second)

Analog Input
- **Resolution**   16-bit

- **Sampling Rate**   10 sample/second
- **CMR @ 50/60 Hz**   150 dB
- **NMR @ 50/60 Hz**   100 dB
- **Isolation Voltage**   3000 V$_{DC}$

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

Ordering Information
- **ADAM-4011**   1-ch Thermocouple Input
  Module
- **ADAM-4011D**   ADAM-4011 with
  7-segment LED Display
- **ADAM-4012**   1-ch Analog Input Module
- **ADAM-4013**   1-ch RTD Input Module