

APAX-5013 APAX-5017 APAX-5018

8-ch RTD Module

12-ch Analog Input Module

12-ch Thermocouple Input Module



APAX-5013



Specifications

General

- **Certifications** CE, FCC class A
- **Dimensions (W x H x D)** 30 x 139 x 100 mm
- **Enclosure** ABS+PC
- **Weight** 170 g
- **Power Consumption** 2.5 W @ 24 V_{DC} (typical)

Analog Input

- **Channels** 8 (Differential)
- **Input Impedance** >10 M Ω
- **Input Type** Pt-100, Pt-200, Pt-500, Pt-1000, Balco, Ni 518 RTD (2-wire and 3-wire)
- **Temperature Range** Pt-100, Pt-200, Pt-500, Pt-1000: -120 ~ 130° C, -200 ~ 850° C
Supports both IEC 60751 ITS90 (0.03851 Ω/Ω° C) and JIS C 1604 (0.03916 Ω/Ω° C)
Balco 500: -30 ~ 120° C
Ni 518: -80 ~ 100° C, 0 ~ 100° C
- **Configure Different Range for Each Channel**
- **Resolution** 16-bit with accuracy $\pm 0.1\%$ of Full Scale Range
- **Sampling Rate** 10 sample/second (total)
- **Noise Rejection** Hardware Filter (50/60 Hz)
- **Wire Burn-out Detection** Yes

Protection

- **2,500 V_{DC} Isolation Between Channels and Backplane**

Environment

- **Operating Temperature** -10 ~ 60° C (when mounted vertically)
- **Storage Temperature** -40 ~ 70° C
- **Relative Humidity** 5 ~ 95% (non-condensing)

Ordering Information

- **APAX-5013** 8-ch RTD Module
- **APAX-5001** 1-slot Backplane Module
- **APAX-5002** 2-slot Backplane Module
- **APAX-5343E** Power Supply for APAX Expansion Module



APAX-5017

APAX-5018



Specifications

General

- **Certifications** CE, FCC class A
- **Dimensions (W x H x D)** 30 x 139 x 100 mm
- **Enclosure** ABS+PC
- **Weight** 170 g
- **Power Consumption (typical)** 4 W @ 24 V_{DC} (APAX-5017)
3.5 W @ 24 V_{DC} (APAX-5018)

Analog Input

- **Channels** 12 (Differential)
 - **Input Type** V, mV, mA (APAX-5017)
V, mV, mA, Thermocouple (APAX-5018)
 - **Input Impedance** Voltage: >10 M Ω (APAX-5017), >1 M Ω (APAX-5018)
Current: 120 Ω (Current)
 - **Voltage/Current Range** ± 150 mV, ± 500 mV, ± 1 V, ± 5 V, ± 10 V, ± 20 mA, 0 ~ 20 mA, 4 ~ 20 mA (APAX-5017)
 ± 50 mV, ± 100 mV, ± 500 mV, ± 1 V, ± 2.5 V, ± 20 mA, 0 ~ 20 mA, 4 ~ 20 mA (APAX-5018)
 - **Temperature Range (APAX-5018 only)** Type J (-210 ~ 1200° C), Type K (-270 ~ 1372° C), Type T (-270 ~ 400° C), Type E (-270 ~ 1000° C), Type R (0 ~ 1768° C), Type S (0 ~ 1768° C), Type B (300 ~ 1820° C)
 - **Configure Different Range for Each Channel**
 - **Resolution** 16-bit with accuracy $\pm 0.1\%$ or better of Full Scale Range (Voltage), $\pm 0.2\%$ or better of Full Scale Range (Current)
- Note:** Refer to manual for Thermocouple accuracy
- **Sampling Rate** 12 samples/second (total)
 - **Noise Rejection** Hardware Filter (50/60 Hz)
 - **Wire Burn-out Detection** APAX-5017: Yes (4 ~ 20 mA only)
APAX-5018: Yes (4 ~ 20 mA and Thermocouple)
 - **Common Mode Voltage** 200 V_{DC}

Protection

- **2,500 V_{DC} Isolation Between Channels and Backplane**
- **Over Voltage Protection**

Environment

- **Operating Temperature** -10 ~ 60° C (when mounted vertically)
- **Storage Temperature** -40 ~ 70° C
- **Relative Humidity** 5 ~ 95% (non-condensing)

Ordering Information

- **APAX-5017** 12-ch Analog Input Module
- **APAX-5018** 12-ch Thermocouple Input Module
- **APAX-5001** 1-slot Backplane Module
- **APAX-5002** 2-slot Backplane Module
- **APAX-5343E** Power Supply for APAX Expansion Module