

# APAX-5013 APAX-5017 APAX-5018

## 8-ch RTD Module

## 12-ch Analog Input Module

## 12-ch Thermocouple Input Module



APAX-5013



### Specifications

#### General

- **Certification** 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<sub>DC</sub> (typical)

#### Analog Input

- **Channels** 8 (Differential)
- **Input Impedance** >10 M $\Omega$
- **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  $\Omega/\Omega/^\circ\text{C}$ ) and JIS C 1604 (0.03916  $\Omega/\Omega/^\circ\text{C}$ )  
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<sub>DC</sub> 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-5017

APAX-5018



### Specifications

#### General

- **Certification** 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<sub>DC</sub> (APAX-5017)  
3.5 W @ 24 V<sub>DC</sub> (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 $\Omega$  (APAX-5017), >1 M $\Omega$  (APAX-5018)  
Current: 120  $\Omega$  (Current)
  - **Voltage/Current Range**  $\pm 150$  mV,  $\pm 500$  mV,  $\pm 1$  V,  $\pm 5$  V,  $\pm 10$  V,  $\pm 20$  mA, 0 ~ 20 mA, 4 ~ 20 mA (APAX-5017)  
 $\pm 50$  mV,  $\pm 100$  mV,  $\pm 500$  mV,  $\pm 1$  V,  $\pm 2.5$  V,  $\pm 20$  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<sub>DC</sub>

#### Protection

- **2,500 V<sub>DC</sub> Isolation Between Channels and Backplane**
- **Over Voltage Protection**

#### Environment

- **Operating Temperature** -10 ~ 60°C (when mounted vertically)  
-20 ~ 70°C (for PE version)
- **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-5017PE** 12-ch Analog Input Module with Wide Temperature