

# APAX-5060

# APAX-5080

## 12-ch Relay Output Module

## 4/8-ch High/Low Speed Counter Module



APAX-5060



### Specifications

#### General

- **Dimensions (W x H x D)** 30 x 139 x 100 mm
- **Weight** 195 g
- **Power Consumption** 2 W @ 24 V<sub>DC</sub> (typical)
- **Status Display** LED per channel  
On: Logic level 1  
Off: Logic level 0

#### Relay Output

- **Channels** 12
- **Relay Type** Form A (SPST)
- **Switching Capacity and Lifetime of the Contact (for resistive load)**  
VDE: 30,000 operations (5 A @ 250 V<sub>AC</sub>,  
10 operations/minute at 8°C)  
70,000 operations (5 A @ 30 V<sub>DC</sub>,  
10 operations/minute at 85°C)  
UL: 60,000 operations (5 A @ 250 V<sub>AC</sub>)  
100,000 operations (5 A @ 30 V<sub>DC</sub>)  
Mechanism: 20,000,000 operations  
(no load, 300 operations/min)
- **Breakdown Voltage** 500 V<sub>AC</sub> (50/60 Hz)
- **Contact Resistance** 30 mΩ (maximum)
- **Insulation Resistance** 1 GΩ (minimum) at  
500 V<sub>DC</sub>

#### Protection

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

#### 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-5060** 12-ch Relay Output Module



APAX-5080



### Specifications

#### General

- **Dimensions (W x H x D)** 30 x 139 x 100 mm
- **Weight** 170 g
- **Power Consumption** 2.5 W @ 24 V<sub>DC</sub> (typical)
- **Status Display** LED per channel (for DI/O only)  
On: Logic level 1; Off: Logic level 0

#### Counter/Frequency Input

- **Channels & Mode** 8 (Up Counter, High/Low Freq. and Wave Width mode)  
4 (Pulse and Direction, Up/Down Pulse, A/B Phase)  
32-bit + 1-bit overflow
- **Counting Range** 32-bit + 1-bit overflow
- **Minimum Pulse Width** 1 μs for High Freq. mode; 1 ms for Low Freq. mode
- **Counter Frequency** 0.1 Hz ~ 10 Hz for Low Freq. mode and Wave Width mode  
10 Hz ~ 1M Hz for High Freq. mode and other modes
- **Input Voltage** For "0" signal: 0 ~ 3 V<sub>DC</sub>; For "1" signal: 10 ~ 30 V<sub>DC</sub>
- **Accuracy** 0.1% for Low Freq. mode
- **Input Filter** 0.1 us ~ 40 ms

#### Digital Input

- **Channels** 4
- **Type** Sink (wet contact)
- **Input Voltage** For "0" signal: 0 ~ 3 V<sub>DC</sub>; For "1" signal: 10 ~ 30 V<sub>DC</sub>

#### Digital Output

- **Channels** 4 (sink type)
- **Output Voltage Range** 8 ~ 35 V<sub>DC</sub>
- **Normal Output Current** 0.5 A (per channel)

#### Protection

- **Isolation Between Channels and Backplane** 2,500 V<sub>DC</sub>
- **Short Circuit Protection (For DO channel)**
- **Thermal Shutdown Protection (For DO channel)**

#### Environment

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

### Ordering Information

- **APAX-5080** 4/8-ch High Speed Counter Module