

# Relays & Solenoids

## NAIS PCB Relays

Detailed product specifications are available on: us. 100y. com. tw



1. High frequency characteristics with low capacitance between output terminals Low capacitance: Typ. 5 pF (between output terminals)Isolation loss: 40 dB or more (at 1 Mhz)

Audio visual equipmentCD, VCR

·Measuring devicesScanner, IC checker,

TYPICAL APPLICATIONS

Board tester

c **FL** us

#### 2. High sensitivity, high speed response

Controls load current of 0.12 A (max.), With input current of 5 mA. Operate time is 100 µs (Typical)

#### 3. Low-level off state leakage current

PhotoMOS AQV22 O types exhibit an OFF state leakage current in the order of 100 picoamperes at a load voltage of 80 V compared with several milliamperes in solid-state relay.

#### 4. Controls low-level analog signals

PhotoMOS relay features extremely low closed-circuit offset voltages to enable control of small analog signals without

- 5. Low terminal electromotive force (Approx. 1 mV)
- 6. Small LED voltage drop on input side (Max. 1.5 V)

Pa	art No.	Product No.	Manufacturer	Description	Contact Rating	Coil Voltage	Recognized Safety	Туре
47	7351	AQV221	NAIS	NAIS_RF PhotoMOS RELAY	40V / 80mA	40V	UL(E43149),C-UL	AQV221
47	7352	AQV225	NAIS	NAIS_RF PhotoMOS RELAY	80V / 50mA	80V	UL(E43149),C-UL	AQV225



#### **FEATURES**

- 1. Low output capacitance between output terminals and low ON-resistance
- 2. High speed switching (Turn on time: typ. 200µs)



## 3. High sensitivity

Control loads up to 250mA with input current 5mA

#### 4. Low-level off state leakage current

The SSR has an off state leakage current of several milliamperes, where as this PhotoMOS relay has typ. 20pA even with the rated load voltage

#### 5. Controls low-level analog signals

PhotoMOS relays features extremely low-closed-circuit offset voltage to enable control of low-level analog signals without distortion

6. Low thermal electromotive force (Approx. 1 μV)

#### TYPICAL APPLICATIONS

#### Measuring and testing equipment

- 1. Testing equipment for semiconductor performanceIC tester, Liquid crystal driver tester, semiconductor performance tester 2. Board tester Bear board tester, In-circuit
- tester, function tester
- 3. Medical equipment Ultrasonic wave diagnostic machine
- 4. Multi-point recorder (warping, thermo couple)

Part No.	Product No.	Manufacturer	Description	Contact Rating	Coil Voltage	Recognized Safety	Туре
47359	AQV221N	NAIS	NAIS_RF PhotoMOS RELAY	40V / 150 mA	40V	UL(E43149),C-UL	AQV221N



#### **FEATURES**

1. PhotoMOS relay with high response speed, low leakage current and low On resistance

2. Low capacitance between output terminals ensures high response speed: The capacitance between output terminals is small, typically 10 pF. This enables for a fast operation speed of 200 us.

### 3. High sensitivity and low On resistance

Maximum 0.1 A of load current can be controlled with input current of 5 mA. The On resistance is less than our conventional models. With no metallic contacts, the PhotoMOS relay has stable switching characteristics.

## 4. Low-level off state leakage current

The SSR has an off state leakage current of several milliamperes, whereas the PhotoMOS relay has only 30 pA even with the rated load voltage of 200 V (AQV227N).

5. Controls low-level analog signals					
PhotoMOS relay features extremely low					
closed-circuit offset voltages to enable					
control of small analog signals without					
distortion.					

6. Low terminals electromotive force (approx. 1 µV)

#### TYPICAL APPLICATIONS

- Measuring devices
- · Scanner, IC checker, Board tester

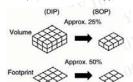
Part No.	Product No.	Manufacturer	Description	Contact Rating	Coil Voltage	Recognized Safety	Туре
47363	AQV224N	NAIS	NAIS_RF PhotoMOS RELAY	400V / 50mA	400V	UL(E43149),C-UL	AQV224N
47352	AQV225	NAIS	NAIS_RF PhotoMOS RELAY	80V / 50mA	80V	UL(E43149),C-UL	AQV225

# 4.4±0.2 6.3±0.2

#### **FEATURES**

#### 1. 1-channel (Form A) in super miniature design

The device comes in a super-miniature SO package measuring (W) 4.4 × (L) 6.3 × (H) 2.1 mm (W).173× (L).248× (H).083 inch —approx. 25% of the volume and 50% of the footprint size of DIP type PhotoMOS Relays.



2. Low capacitance between output terminals ensure high response speed:

The capacitance between output terminals is small, typically 10 pF. This enables for a fast operation speed

#### 3. Low-level off state leakage current:

The SSR has an off state leakage current of several milliamperes. whereas the PhotoMOS relay has only 30 pA even with the rated load voltage of 200 V (AQV227NS).



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