

# PhotoMOS Relay Schematic and Wiring Diagrams

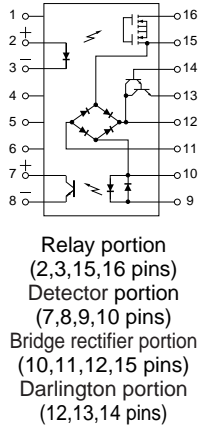
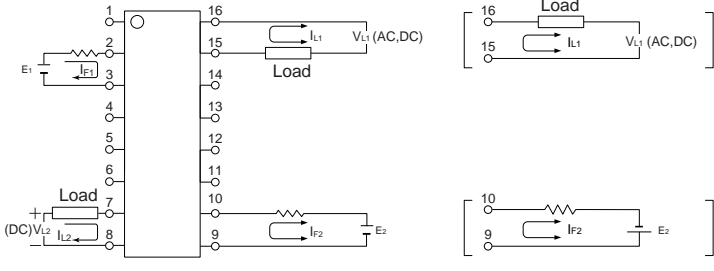
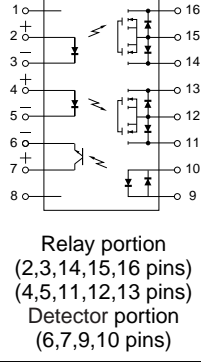
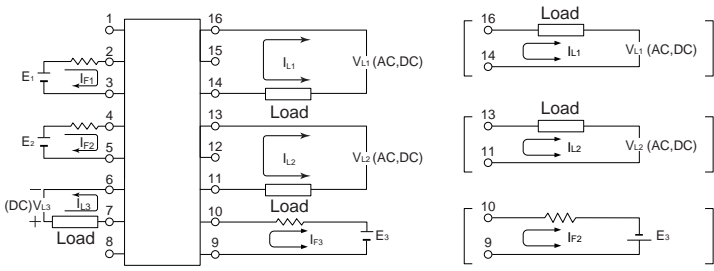
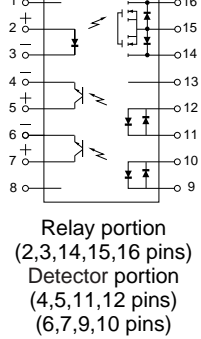
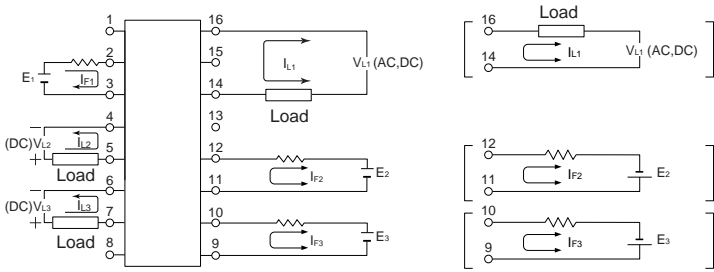
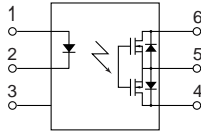
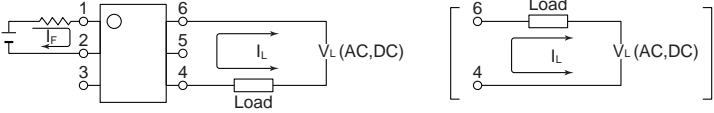
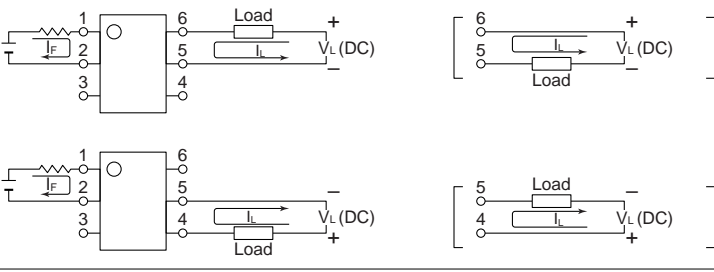
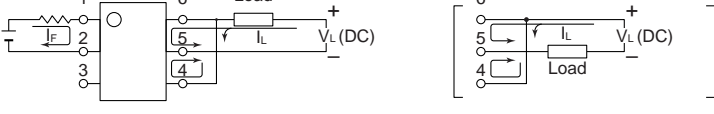
Type	Schematic	Output configuration	Load	Con-nection	Wiring diagram
AQV21 AQV21 (SOP) AQV22 AQV22 (SOP) AQV23 AQV25 Series		1a	AC/DC	A	
			DC	B*	
			DC	C	
	(AQV254R only)				
AQW21 AQW21OEH AQW21 (SOP) AQW22 AQW25 AQW27 Series		2a	AC/DC	—	(1) Two independent 1 Form A use  (2) 2 Form A use 
AQW21OTS Series		Relay portion 1a Detector portion 1a	Relay portion AC/DC Detector portion DC	—	
AQW21OT2S Series		Relay portion 1a Detector portion 2a	Relay portion AC/DC Detector portion DC	—	

\*Can be also connected as 2 Form A type. (However, the sum of the continuous load current should not exceed the absolute maximum rating.)

\*\*Can be also connected as 2 Form B type. (However, the sum of the continuous load current should not exceed the absolute maximum rating.)

Notes: 1.  $E_1$ : Power source at input side;  $V_{IN}$ : Input voltage;  $I_F$ : LED forward current;  $I_{IN}$ : Input current;  $V_L$ : Load voltage;  $I_L$ : Load current; R: Current limit resistor.

2. Method of connecting the load at the output is divided into 3 types.

Type	Schematic	Output configuration	Load	Con- nection	Wiring diagram
AQS210PS Series	 <p>Relay portion (2,3,15,16 pins) Detector portion (7,8,9,10 pins) Bridge rectifier portion (10,11,12,15 pins) Darlington portion (12,13,14 pins)</p>	Relay portion 1a Detector portion 1a	Relay portion AC/DC Detector portion DC	—	
AQS210TS Series	 <p>Relay portion (2,3,14,15,16 pins) Detector portion (4,5,11,12,13 pins) Detector portion (6,7,9,10 pins)</p>	Relay portion 2a Detector portion 1a	Relay portion AC/DC Detector portion DC	—	
AQS210T2S Series	 <p>Relay portion (2,3,14,15,16 pins) Detector portion (4,5,11,12 pins) Detector portion (6,7,9,10 pins)</p>	Relay portion 1a Detector portion 2a	Relay portion AC/DC Detector portion DC	—	
AQV41 AQV41 (SOP) AQV45 Series		1b	AC/DC	A	
			DC	B**	
			DC	C	

\*Can be also connected as 2 Form A type. (However, the sum of the continuous load current should not exceed the absolute maximum rating.)  
\*\*Can be also connected as 2 Form B type. (However, the sum of the continuous load current should not exceed the absolute maximum rating.)  
Notes: 1.  $E_1$ : Power source at input side;  $V_{IN}$ : Input voltage;  $I_F$ : LED forward current;  $I_{IN}$ : Input current;  $V_L$ : Load voltage;  $I_L$ : Load current;  $R$ : Current limit resistor.  
2. Method of connecting the load at the output is divided into 3 types.

Type	Schematic	Output configuration	Load	Con-nection	Wiring diagram
AQW61 AQW61OEH AQW65 Series		1a1b	AC/DC	—	<p>(1) Two independent 1 Form A &amp; 1 Form B use</p> <p>(2) 1 Form A 1 Form B use</p>
AQW41 AQW41OEH AQW45 Series		2b	AC/DC	—	<p>(1) Two independent 1 Form B use</p> <p>(2) 2 Form B use</p>
AQV10 Series		1a	DC	A	
AQV20 Series		1a	AC/DC	A	
			DC	B*	
			DC	C	

\*Can be also connected as 2 Form A type. (However, the sum of the continuous load current should not exceed the absolute maximum rating.)

\*\*Can be also connected as 2 Form B type. (However, the sum of the continuous load current should not exceed the absolute maximum rating.)

Notes: 1.  $E_1$ : Power source at input side;  $V_{IN}$ : Input voltage;  $I_F$ : LED forward current;  $I_{IN}$ : Input current;  $V_L$ : Load voltage;  $I_L$ : Load current; R: Current limit resistor.

2. Method of connecting the load at the output is divided into 3 types.

Type	Schematic	Output configuration	Load	Connection	Wiring diagram
AQX21•44 Series (Multi-channel type)	<p>① Input Common: DC+          ② Input 1: DC-          ③ Input 2: DC-          ④ Input 3: DC-          ⑤ Input 4: DC-          ⑥ Output 1 (N.O.): DC or AC          ⑦ Output 1 (N.O.): DC or AC          ⑧ Output 2 (N.O.): DC or AC          ⑨ Output 2 (N.O.): DC or AC          ⑩ Output 3 (N.O.): DC or AC          ⑪ Output 3 (N.O.): DC or AC          ⑫ Output 4 (N.O.): DC or AC          ⑬ Output 4 (N.O.): DC or AC</p>	4a	AC/DC	-	
AQY21 (SOP) AQY21OEH AQY22 (SOP) AQY27 Series		1a	AC/DC	-	
AQY41 (SOP) AQY41OEH Series		1b	AC/DC	-	
AQZ20 AQZ26 Series		1a	AC/DC	-	
AQZ10 Series		1a	DC	-	

\*Can be also connected as 2 Form A type. (However, the sum of the continuous load current should not exceed the absolute maximum rating.)  
 \*\*Can be also connected as 2 Form B type. (However, the sum of the continuous load current should not exceed the absolute maximum rating.)  
 Notes: 1.  $E_1$ : Power source at input side;  $V_{IN}$ : Input voltage;  $I_F$ : LED forward current;  $I_{IN}$ : Input current;  $V_L$ : Load voltage;  $I_L$ : Load current;  $R$ : Current limit resistor.  
 2. Method of connecting the load at the output is divided into 3 types.

Type	Schematic	Output configuration	Load	Wiring diagram
AQZ40 Series		1b	AC/DC	
AQZ20-V Series		1a	AC/DC	
AQZ20-D Series		1a	AC/DC	
AQZ10-D Series		1a	DC	

Notes: 1.  $E_1$ : Power source at input side;  $V_{IN}$ : Input voltage;  $I_F$ : LED forward current;  $I_{IN}$ : Input current;  $V_L$ : Load voltage;  $I_L$ : Load current; R: Current limit resistor.  
2. Method of connecting the load at the output is divided into 3 types.