PhotoMOS Relay Schematic and Wiring Diagrams

	Schematic	Output configu- ration	Load type	Connection	Wiring diagram
AQV10(DIP) Series	1 6 6 0 5 5 3 4 4 0 0	· 1a	DC	Α	E ₁
AQV11(DIP) Series	10 20 30 *				
AQV20(DIP) Series	1 6 6 5 5 3 4 0 ×	1a	AC/DC	А	E ₁ T F 2 O S O C O C O C O C O C O C O C O C O C
			DC	В	$E_1 \xrightarrow{{\text{$1$}}} \underbrace{\begin{smallmatrix} 0 \\ \text{1} \\ \text{2} \\ \text{3} \\ \text{4} \\ \text{4} \\ \text{4} \\ \text{1}} \underbrace{\begin{smallmatrix} 6 \\ \text{$Load} \\ \text{$5$} \\ \text{$4$} \\ \text{$Load} \\ \text{1} \\ \text{1} \\ \text{2} \\ \text{1} \\ \text{2} \\ \text{4} \\ \text{1} \\ \text{2} \\ \text{4} \\ \text{4} \\ \text{4} \\ \text{2} \\ \text{4} \\$
					Can be also connected as 2 Form A type. (However, the sum of the continuous load current should not exceed the absolute maximum rating.)
			DC	С	E ₁ T E ₂ C C C C C C C C C
AQY21 (DIP, SOP) AQY22(SOP, SSOP, SON) AQY27 (Power-DIP) Series	1 4 0 2 1 E 3 3 0	1a	AC/DC	_	E ₁ Load V _L (AC,DC) V _L (AC,DC) V _L (AC,DC)
AQY22OF AQY21OF Series		1a	AC/DC	_	V _{IN} I _{IF} 2 Load V _L (AC,DC) 3 Load V _L (AC,DC)

Notes: 1. E1: Power source at input side; VIN: Input voltage; IF: LED forward current; IIN: Input current; VL: Load voltage; IL: Load current; R: Current limit resistor.

^{2.} Method of connecting the load at the output is divided into 3 types. *Terminal 3 cannot be used, since it is in the internal circuit of the relay.

	Schematic	Output configu- ration	Load type	Connec- tion	Wiring diagram
AQV21 (DIP, SOP) AQV22 (DIP, SOP) AQV23(DIP)* AQV25 (DIP, SOP) Series	1 2 3 3 0	1a	AC/DC	А	E ₁ T P 2 O O O O O O O O O O O O O O O O O O
			DC	В	$E_1 \xrightarrow{\frac{1}{ E }} 2$ $\frac{1}{3} \xrightarrow{\frac{1}{ E }} V_L(DC)$ $\frac{6}{5} \xrightarrow{\frac{1}{ L }} V_L(DC)$ $\frac{6}{5} \xrightarrow{\frac{1}{ L }} V_L(DC)$
					Can be also connected as 2 Form A type. (However, the sum of the continuous load current should not exceed the absolute maximum rating.)
	Terminal 3 cannot be used, since it is in the internal circuit of the relay.		DC	С	E ₁ T C C C C C C C C C
AQW21 (DIP, SOP) AQW22 (DIP, SOP) AQW25(DIP) Series	1 0 2 0 1 1 1 1 7 0 3 0 4 0 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2a	AC/DC		(1) Two independent 1 Form A use E1
					$E_1 \xrightarrow{\begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $
AQY41 (DIP, SOP) Series	1 4 0 2 1 E 3 0	1b	AC/DC	_	E ₁ I _L V _L (AC,DC)

Notes: 1. E1: Power source at input side; V_{IN}: Input voltage; IF: 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.

* AQV23 series in SOP is also possible. Please inquire.

	Schematic	Output configu- ration	Load type	Connec- tion	Wiring diagram
AQV41 (DIP, SOP) AQV45(DIP) Series	1 2 3 3	1b	AC/DC	А	$E_1 \xrightarrow{\frac{1}{p}} 2$ $\frac{1}{2} \xrightarrow{\frac{1}{p}} 2$ \frac
			DC	В	E ₁ T E ₂ C C C C C C C C C
					Can be also connected as 2 Form B type. (However, the sum of the continuous load current should not exceed the absolute maximum rating.)
	Terminal 3 cannot be used, since it is in the internal circuit of the relay.		DC	С	E ₁
AQW61 (DIP, SOP) AQW65(DIP) Series	1 NC 1	1a1b	AC/DC	_	(1) Two independent 1 Form A & 1 Form B use E ₁ I _{F2} I _{F2} V _{L1} (AC,DC) 8 Load V _{L1} (AC,DC) 6 Load 5 Load
					8 Load 7 Lı VLı (AC,DC) 6 Load 5 Load 6 Load 7 Lı VLı (AC,DC)
AQW41(DIP) AQW45(DIP) Series	1 2 2 1 7 3 6 6 4 4 1 1 1 1 5 0	2b	AC/DC		(1) Two independent 1 Form B use $E_1 \xrightarrow{\int \frac{1}{ F } 2} V_{L1}(AC,DC) = \begin{cases} 8 & Load \\ 7 & I_{L1} & V_{L1}(AC,DC) \\ 6 & Load \\ 5 & I_{L2} & V_{L2}(AC,DC) \end{cases}$
					(2) 2 Form B use $E_1 = \begin{bmatrix} 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1$

Notes: 1. E1: Power source at input side; VIN: Input voltage; IF: LED forward current; IIN: Input current; VL: Load voltage; IL: Load current; R: Current limit resistor. 2. Method of connecting the load at the output is divided into 3 types.

	Schematic	Output configu- ration	Load type	Connec- tion	Wiring diagram
AQS22(SOP) Series	10 0 16 20 15 30 0 14 40 0 13 50 0 12 60 0 11 70 10 80 9	4a	AC/DC		E ₁
AQS22OF (SOP) Series	1 0 16 0 15 0 15 0 15 0 15 0 15 0 15 0 1	4a	AC/DC		V _{IN1}
AQZ10(SIL) Series	1 2 3 4 - + - +	1a	DC	_	O 1 2 3 4 Load III V, (DC) III V, (DC)
AQZ20(SIL) AQZ26(SIL) Series	1 2 3 4	1a	AC/DC	1	O 1 2 3 4 Load VL (AC or DC) VL (AC or DC)
AQZ10OD (SIL) Series	1 2 3 4	1a	DC	_	0 1 2 3 4 Load +

Notes: 1. Ei: Power source at input side; Vin: Input voltage; Ir: LED forward current; In: Input current; Vi: Load voltage; Ii: Load current; R: Current limit resistor. 2. Method of connecting the load at the output is divided into 3 types.

	Schematic	Output configu- ration	Load type	Connec- tion	Wiring diagram
AQZ20OD (SIL) Series	1 2 3 4	1a	AC/DC	_	1 2 3 4 Load VL (AC or DC) 1 VN (AC or DC)
AQZ40(SIL) Series	1 2 3 4	1b	AC/DC	_	Load VL (AC or DC) Load VL (AC or DC)
APV1121S (SOP) APV2121S (SOP) APV2111V (SSOP)	1 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0	1a	DC	_	Power MOSFET drive wiring diagram $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
APV1122(DIP)	10 	1a	AC/DC	_	Power MOSFET drive wiring diagram

Notes: 1. E1: Power source at input side; VIN: Input voltage; IF: LED forward current; IIN: Input current; VL: Load voltage; IL: Load current; R: Current limit resistor.

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