



24 V DC POWER SOURCE FOR PHOTOELECTRIC SENSOR

Components for advanced technology

MP-PC
Control Pack



This is the power source box for MP, MQ, MQ-F Photoelectric Sensors. When a 24 V DC power source is not available, this unit can be used with an AC power source (120 V AC, 240 V AC).

FEATURES

1. Equipped with a power source and operation indicator LED.

By means of a light emitting diode, power source indication and operation indication are provided, making the check of operation simple.

2. Relay output

The output relay is a DSP relay type. With high reliability and large capacity, 1c contacts are provided.

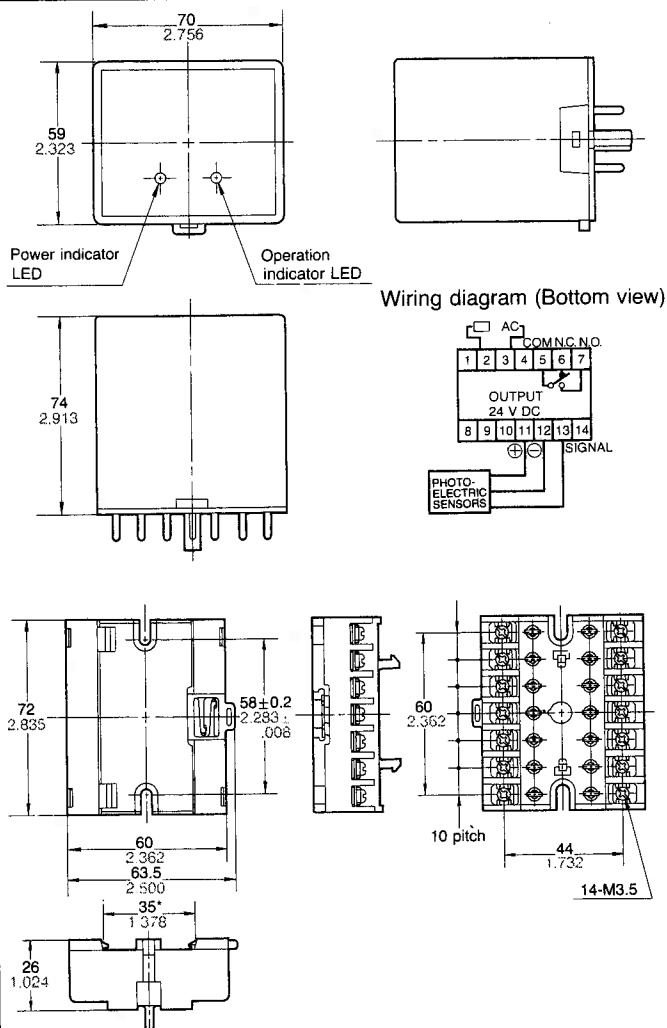
TYPES

Part No.	Operating voltage
MP-PC-AC120V-US	120 V AC
MP-PC-AC240V-US	240 V AC

Note: Socket is supplied with control pack.

DIMENSIONS

mm inch



RATINGS

Operating side	Rated operating voltage	120 V AC, 240 V AC (Thru-beam types)
	Rated frequency	50/60 Hz common use
	Rated power consumption	Less than 5 VA
Load side	Rated output voltage and current	24 V DC, about 50 mA
	Rated control capacity	Pilot duty C300

PERFORMANCE

Item	Specifications
Operating voltage range	Rated value +10%, -20%
Operating rate	30 times/s
Insulation resistance (initial)	Between charged and uncharged sections: Above 100 MΩ; Between contacts: Above 100 MΩ (at 500 V DC)
Dielectric strength	Between charged and uncharged sections: 2000 Vrms for 1 minute; Between contacts: 1000 Vrms for 1 minute
Temperature rise	Max. 55 deg. (C) 99 deg. (F). (For both Thru-beam or Diffuse reflective types at rated operating voltage with 1 unit connected)
Functional vibration resistance	10 to 55 Hz (1 min/cycle) double amplitude 0.3 mm .012 inch (10 min on 3 axes)
Destructive vibration resistance	16.7 Hz double amplitude 4 mm .157 inches (1 h on 3 axes)
Functional shock resistance	Min. 10 G (4 times on 3 axes)
Destructive shock resistance	Min. 30 G (5 times on 3 axes)
Usable ambient temperature	-10°C to +50°C +10°F to +122°F
Usable ambient humidity	Max. 85% RH
Mechanical life	Min. 1.0×10^7 operations
Electrical life	Min. 2.0×10^5 operations (at 3 A 250 V AC resistive at 20 cpm)
Contact arrangement	1 Form C
Contact resistance (initial)	Max. 100 mΩ (1 A 6 V DC)
Contact material	Gold flash over silver alloy

Common Question Regarding the Triple Beam Family

Expanding the Triple Beam Family									
Questions	MQ-W3	MQ-W20	MQ-W70	MR3-M100	MR3-M200	Fiber Optics		MQ-VD2A	
						MQ-FW1	MQ-FW2		
Controllable Range	0.75-1.5"	1.5-8"	8-27"	8"-3.3'	1.5'-7'	0-0.5"	0-1"	.8"	
Environmental Resistance	IP67			IP66		IP64		IP67	
	NEMA 6			NEMA 4X		NEMA 4		NEMA 6	
Response Time	2ms			1ms(DC)		1ms		.5ms	
Operating Power	12-24V DC			DC & 12-240V AC/DC		12-24V DC		DC	
Output Types	NPN or PNP Transistor			DC-NPN/PNP Trans.		NPN or PNP		NPN	
				AC-1 NO Relay, 3A 250		Transistor		Transistor	
Built-in Timer	NO			YES		NO			
Comments	Best Environmental			Timing & AC Operation		Best Accuracy		Speed	
Repeatability	0.005"	0.03"	NA			0.001"	0.005"	NA	
Colors	Sees ALL Colors							Contrasts	
Black	Sees BLACK							NA	
Transparencies	Sees Transparencies							NA	
Dirt	Will Operate DIRTY							NA	
Adjustment	Detection Distance can be adjusted within each of the controllable ranges ab.							Sensitivity	
Current Draw	30mA			55mA		35mA			
Ouput Capacity	100mA			100mA(DC), 3A(AC)		100mA			
Fiber Length	NA					1.5 or 3.3'		NA	
Light ON or Dark ON	Wiring Selectable			Switch Selectable				Wiring Selectable	
Light Source	Visible or Infrared		Infrared			Visible Red			
Advanced Catalog Page #'s	2, 8-11			2 12-17		4, 26-29		3,23-25	

Note 1-All DC units can be operated on 120 or 240 VAC with the appropriate MP-PC Control Pack.

Note 2- All Fiber Optic units must be ordered with amplifier MQ-FWAR2 (for NPN) or MQ-FWCR2 (for PNP), in addition to the fiber.