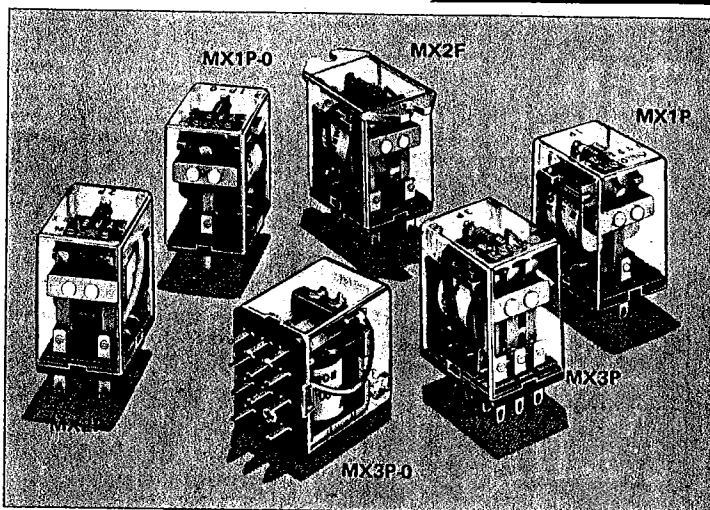


**OMRON****GENERAL-PURPOSE RELAY**

Cat. No. J07-E3-2

**Model MX****Miniature, High-performance Relay****FEATURES**

- Hinge type relay
- Compact in size
- Large contact capacity (5A UL/CSA rating)
- Widely applicable to fields requiring high reliability

**AVAILABLE TYPES**

Mounting style	Standard bracket mounting		Upper mounting bracket
	Terminal		
Contact form	Solder	P.C.B.	Solder
SPDT	MX1P-US	MX1P-0-US	MX1F-US
DPDT	MX2P-US	MX2P-0-US	MX2F-US
3PDT	MX3P-US	MX3P-0-US	MX3F-US

When placing your order, add the desired coil voltage rating listed in "SPECIFICATIONS" to the part number as shown below.

MX1P-US-DC6 → Coil rating

**SPECIFICATIONS****OMRON****COIL RATINGS**

Rated voltage (V)	Rated current (mA)		Coil resistance (Ω)	Coil inductance (ref. value) (H)		Must operate voltage	Must dropout voltage	Maximum voltage	Power consumption (VA, W)
	50Hz	60Hz		Armature OFF	Armature ON				
AC	6	218	190	14	0.033	0.075	80 max.	30 min.	Approx. 1.0
	12	115	100	52	0.13	0.28			
	24	49.5	43	250	0.68	1.49			
	50	27.0	23.5	1,040	2.2	4.9			
	100	12.5	10.5	3,900	10	23			
	110	10.7	12.1	3,900	10	23			
120	10.8	9.2	5,750	13.5	30				
DC	6	193.5		31	0.067	0.160	10 min.	110	Approx. 1.2
	12	96		125	0.279	0.699			
	24	48		500	1.08	2.66			
	48	24		2,000	4.22	9.57			

NOTE: The rated current, coil resistance and inductance are measured at a coil temperature of 20°C with tolerances of +15%, -20% for AC rated current and ±15% for DC rated current, and ±15% for rated coil resistance.

**CONTACT RATINGS**

Type Load	1-, 2-pole		3-pole	
	Resistive load (p.f.=1)	Inductive load (p.f.=0.4, L/R =7msec)	Resistive load (p.f.=1)	Inductive load (p.f.=0.4, L/R =7msec)
Rated load	110 VAC 2A 24 VDC 2A	110 VAC 1.2A 24 VDC 1.2A	110 VAC 1.5A 24 VDC 1.5A	110 VAC 1A 24 VDC 1A
Carry current	5A		2A	
Max. operating voltage	120 VAC 30 VDC		110 VAC 24 VDC	
Max. operating current	5A		1.5A	
Max. switching capacity	220VA 48W	140VA 40W	165VA 36W	115VA 30W
Minimum permissible load	1 VDC 1mA (ref. value)			

**CHARACTERISTICS**

Item	Type	1-pole	2-, 3-pole
Contact resistance			50mΩ max.
Operate time		AC: 20msec max. DC: 15msec max.	
Release time		AC: 20msec max. DC: 15msec max.	
Operating frequency		Mechanically: 18,000 operations/hour; Electrically: 1,800 operations/hour (under rated load)	
Insulation resistance		100MΩ min. (at 500 VDC)	
Dielectric strength		1,000 VAC, 50/60Hz for 1 minute (750 VAC between non-continuous contacts)	
Vibration		Mechanical and malfunction durability: 10 to 55Hz; .06" double amplitude	
Shock		Mechanical durability: Approx. 100G's Malfunction durability: Approx. 10G's	
Ambient temperature		Operating: 14 to 104°F (without frost formation)	
Humidity		45 to 85% RH	
Service life	Mechanically	1,000,000 operations min. (at operating frequency of 18,000 operations/hour)	5,000,000 operations min. (at operating frequency of 18,000 operations min.)
	Electrically	See "CHARACTERISTIC DATA."	
Weight		Approx. .60oz.	

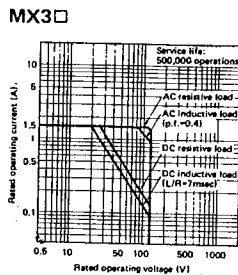
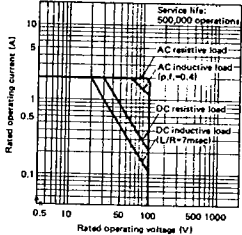
NOTE: The data shown are of initial value.

Approved by Standards  
 UL recognized type (File No. E41515)/  
 CSA certified type (File No. LR31928)

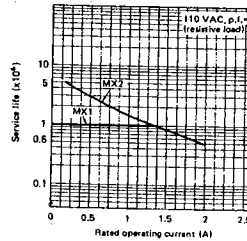
Type	Contact form	Coil ratings	Contact ratings
MX	SPDT	6 to 110 VAC 6 to 48 VDC	5A 120 VAC/30 VDC (resistive load)
	DPDT		3A 120 VAC (general purpose load)
	3PDT		1.5A 110 VAC/24 VDC (resistive load) 1A 110 VAC (general purpose load)

CHARACTERISTIC DATA

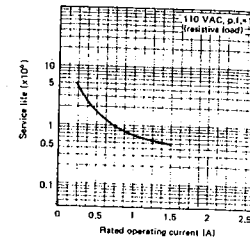
Maximum switching capacity  
 MX1□, MX2□



Electrical service life  
 MX1□, MX2□

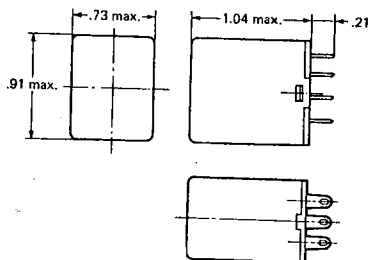


MX3□

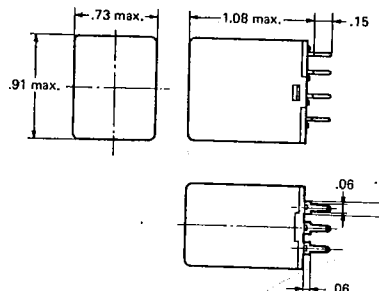


DIMENSIONS

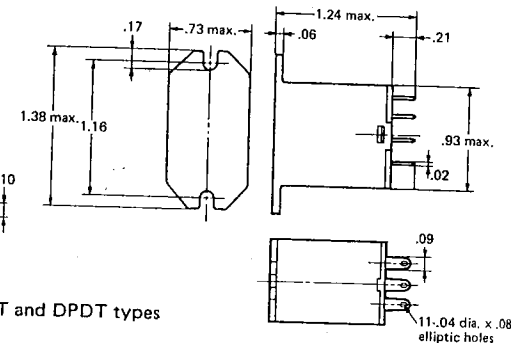
MX1P, MX2P, MX3P



MX1P-0, MX2P-0, MX3P-0

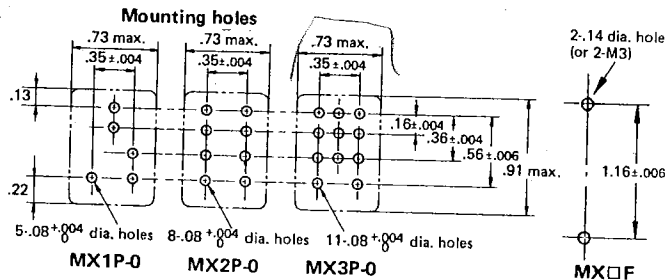
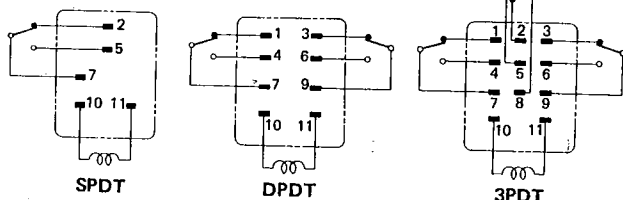


MX1F, MX2F, MX3F



NOTE: The above dimensioned drawings show the 3PDT type. The dimensions of the SPDT and DPDT types are identical to those of the 3PDT type.

Terminal arrangement (Bottom view)



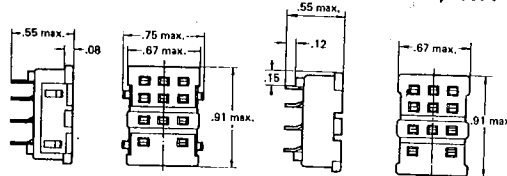
ACCESSORIES

CONNECTING SOCKETS

Available types

Relay	Socket	Solder terminals	P.C. terminals
MX1P	PX05	PX05	PX05-0
MX2P	PX08	PX08	PX08-0
MX3P	PX11	PX11	PX11-0

PX05, PX08, PX11

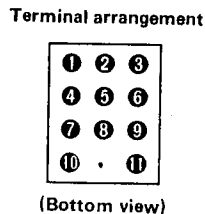
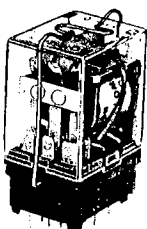


PX05-0, PX08-0, PX11-0

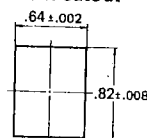
NOTE: The dimensioned drawings on the left show PX11-0. The dimensions of PX08-0 are identical to those of PX11-0.

RELAY HOLD-DOWN CLIP

PXC



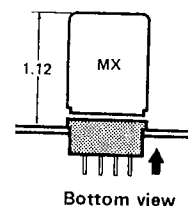
Panel cutout



NOTES:

1. Panel thickness: .04 to .08"
2. When a number of relays are to be mounted in line, be sure to provide a minimum space of .35" between two juxtaposed relays.
3. Mounting holes for PX□-0 connecting sockets are the same as those shown for MX□P-0 above.

Mounting height of relay with socket



NOTE: ALL DIMENSIONS SHOWN IN THIS CATALOG ARE IN UNITS OF INCHES. To convert inches into millimeters multiply by 25.4. To convert ounces into grams multiply by 28.353.