

# 219 Series - Industrial Relays

## DPDT, 4PDT, 6PST, 10 Amps

File No. E13224



LISTED 225G  
IND. CONT. EQ.

UL Listed when used with  
sockets 27390(D) or 33377 (D)

Versatile. Rugged. Proven. These are but a few words used by customers to describe the 219 series. When long life and cost of down time / service are important the 219 solves the problem. It's a standard throughout industrial applications which many other relays are measured against. Capable of up to four poles double throw or six poles single throw. Contact arrangements are easily customized for special applications. NUCLEAR versions available.

### GENERAL SPECIFICATIONS (@ 25° C)

#### Contacts:

Contact Configuration	Upto 4PDT or 6PST
Contact Material	Silver Alloy-Gold Diffused
Contact Rating	
120 / 240VAC Resistive	10 Amp / 5 Amp
28VDC Resistive	10 Amp
Contact Resistance, Initial	50 milliohms max @ 6vdc

#### Coil:

Coils Available	AC and DC
Nominal Coil Power	AC 5VA DC 1.8-2.5W
Input Voltage Tolerance - AC	85% to 110% of nominal
Input Voltage Tolerance - DC	80% to 110% of nominal
Drop-out voltage	10% of nominal
Duty	Continuous

#### Timing:

Operate Time (max)	25 mS
Release Time (max)	20 mS

#### Dielectric Strength:

Across Open Contacts	500Vrms
Between mutually insulated point	1500Vrms
Insulation resistance	1,000 Mohms min @ 500VDC

#### Temperature:

Operating	AC = -20 to 60°C (-4 to 140°F) DC = -20 to 70°C (-4 to 158°F)
Storage	-40 to 105°C (-40 to 221°F)

#### Life Expectancy:

Electrical (full load)	100,000
Mechanical (no load)	10,000,000

#### Miscellaneous:

Mounting Position	Any
Enclosure	Clear Polycarbonate
Weight	8.5oz (241 grams)



# General Purpose Relays

**Ordering Code**    **219**    **XBX**    **PL**    **-24VDC**

**Series**

219

**Contact Arrangement**

XBX (DPDT)  
 ABA (1 Pole N.O. + DPDT + 1 Pole N.C.)  
 BBX (2 Pole NO & DPDT)  
 XDX (4PDT)  
 FXX (6 Pole-NO)  
 DXB (4 Pole - NO & 2 Pole-NC)

**Optional Features**

Permanent Magnet Blowout - CODE 69  
 Polycarbonate covers - CODE P  
 Indicator Lamp - CODE L  
 Manual Actuator - CODE M  
 Bifurcated Contacts - CODE 33

**Coil Voltage**

AC: 12, 24, 120, 240, (Add VAC)  
 DC: 6, 12, 24/28, 32, 48, 115/125, 250 (Add VDC)

Coil voltages and frequencies must be specified

## 219 Contact Load Specifications

Voltage	Make	Carry	Resistive	Inductive
120VAC	30 Amp	10 Amp	10 Amp	3 Amp
240VAC	30 Amp	10 Amp	5 Amp	1 Amp
24VDC	30 Amp	10 Amp	10 Amp	5 Amp
28VDC	30 Amp	10 Amp	10 Amp	3 Amp
125VDC	30 Amp	10 Amp	0.5 Amp	0.1 Amp

For versions with suffix "69" permanent magnet blowouts

Voltage	Make	Carry	Resistive	Inductive
125VDC (SM)	30 Amp	10 Amp	1.5 Amp	0.5 Amp
125VDC (DM)	30 Amp	10 Amp	4 Amp	1.5 Amp
250VDC (SM)	30 Amp	10 Amp	0.5 Amp	150 mAmp
250VDC (DM)	30 Amp	10 Amp	1.5 Amp	0.5 Amp

Note: SM = Single make  
 DM = Double make

## 219 Coil Specifications

AC Coils, 50/60HZ					DC Coils			
Nominal voltage	Resistance ohms ±10%	Milliamperes Cold	Milliamperes Hot	Impedance ohms	Nominal voltage	Resistance ohms ±10%	Milliamperes Cold	Milliamperes Hot
6	1.1	1500	840	7.2	6	15.5	385	304
12	4.2	750	410	27	12	63.5	189	147
24	15.5	375	200	120	24 /28*	250	96	77
120	540	75	40	2,700	32	375	86	62
240	2100	32	17	13,400	115/125*	6200	20	16

Note: Stock 24VDC and 115VAC relays have nameplates stamped 24/28VDC and 115/125VDC respectively. These relays operate at 80% of the lower voltages and operate within allowable temperature rises at higher voltages.

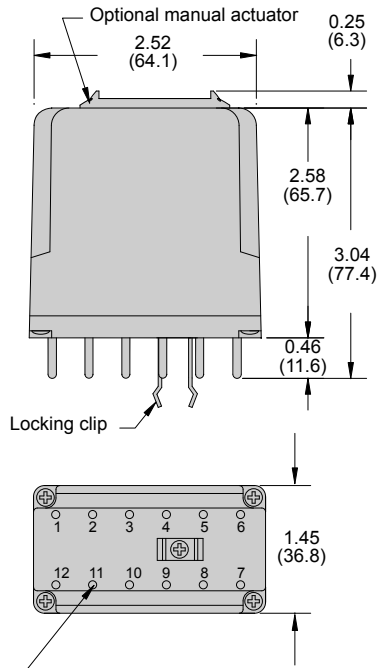
# 219 Series - Industrial Relays

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### Outline Dimensions

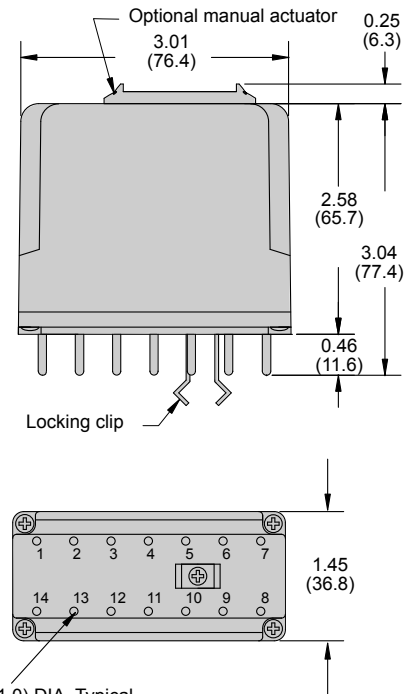
Dimensions Shown in inches & (millimeters)

#### 12 Pin Plug-in



.10 x .43 (2.5 x 11.0) DIA. Typical of all pin dimensions

#### 14 Pin Plug-in



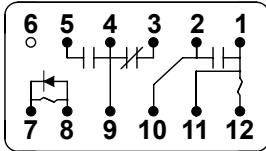
.10 x .43 (2.5 x 11.0) DIA. Typical of all pin dimensions



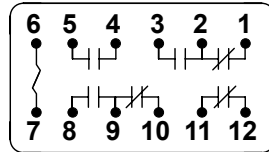
# General Purpose Relays

## 219 Wire Diagram (Top View)

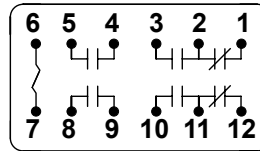
**219AAX**  
(1P-NO+SPDT)



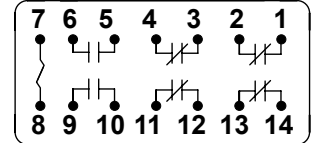
**219ABA**  
(DPDT+1P-NO+1P-NC)



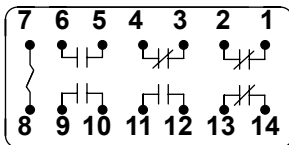
**219BBX**  
(DPDT+2P- N.O.)



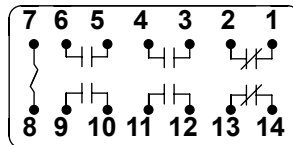
**219BXD**  
(2P-NO+4P-NC)



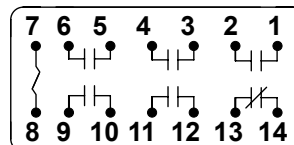
**219CXC**  
(3P-NO+3P-NC)



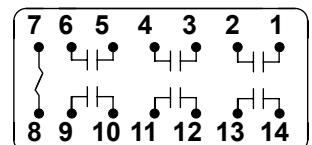
**219DXB**  
(4P-NO+2P-NC)



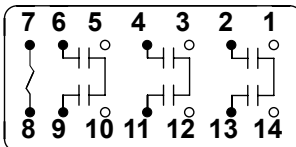
**219EXA**  
(5P-NO+1P-NC)



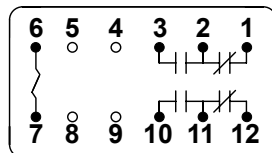
**219FXX**  
(6P-NO)



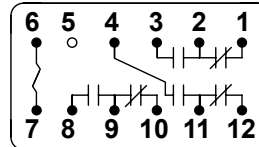
**219KXX**  
(3PDT-DM)



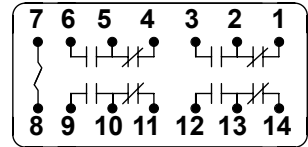
**219XBX**  
(DPDT)



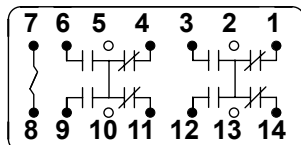
**219XCX**  
(3PDT)



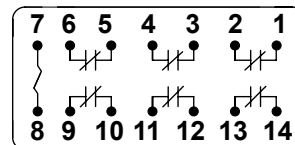
**219XDX**  
(4PDT)



**219XJX**  
(DPDT-DM)



**219XXF**  
(6P-NC)



UL LISTED when used with mating sockets  
27390(D) for 12 pin or 33377(D) for 14 pin