

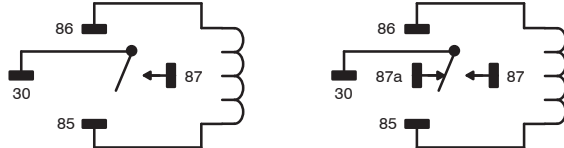
# Automotive Relays

## R51 Series

### Features

- .250" (6.35mm) Quick Connect Terminals
- Industry Standard Pinout
- SPST & SPDT Versions
- Flange Mount – “F” Suffix
- PC Board Mount – “P” Suffix
- Standard Version is IP54 Dust and Splash Protected
- New Weatherproof Versions (Shrouded Terminals) – “W” Suffix

### SPST-NO, 1 Form “A” SPDT, 1 Form “C”



### Contact Rating @ 14VDC

Maximum Load Current	50 Amp Rated		70 Amp Rated
	SPST-NO	SPDT	SPST-NO
Resistive Load	50A	50A (NO); 30A (NC)	70A

### DC OPERATED

NTE Type No.	Nom. Volt.	Contact Arr.	Coil Res. Ohms (Typ)	Nom. Power	Max. Contact Cur. @ 14VDC	Diag No.
R51-1D40-12	12VDC	SPST-NO	90	1.6W	50A	D38
R51-1D40-12F	12VDC	SPST-NO	90	1.6W	50A	D38
R51-1D40-12FW	12VDC	SPST-NO	90	1.6W	50A	D38c
R51-1D40-24	24VDC	SPST-NO	360	1.6W	50A	D38
R51-1D40-24F	24VDC	SPST-NO	360	1.6W	50A	D38
R51-1D40-24FW	24VDC	SPST-NO	360	1.6W	50A	D38c
R51-5D40-12	12VDC	SPDT	90	1.6W	50A	D38
R51-5D40-12F	12VDC	SPDT	90	1.6W	50A	D38
R51-5D40-12FW	12VDC	SPDT	90	1.6W	50A	D38c
R51-5D40-24	24VDC	SPDT	360	1.6W	50A	D38
R51-5D40-24F	24VDC	SPDT	360	1.6W	50A	D38
R51-5D40-24FW	24VDC	SPDT	360	1.6W	50A	D38c
R51-1D70-12	12VDC	SPST-NO	90	1.6W	70A	D38a
R51-1D70-12F	12VDC	SPST-NO	90	1.6W	70A	D38a
R51-1D70-12P	12VDC	SPST-NO	90	1.6W	70A	D38b
R51-1D70-24	24VDC	SPST-NO	360	1.6W	70A	D38a
R51-1D70-24F	24VDC	SPST-NO	360	1.6W	70A	D38a

### ACCESSORIES

MOUNTING STYLES	DESCRIPTION	NTE TYPE NO.
PC MOUNT	4-PIN	R95-159 (70A ONLY)
PC MOUNT	5-PIN	R95-160 (50A ONLY)
WIRE LEADS	4-PIN	R95-189 (50A ONLY)
WIRE LEADS	5-PIN	R95-188 (50A ONLY)
WIRE HARNESSING	4-PIN	R95-160A (70A ONLY)
WIRE LEADS	4-PIN SPST-NO Weatherproof Socket	R95-190
WIRE LEADS	5-PIN SPDT Weatherproof socket	R95-191

Note 1. To ensure a weatherproof connection, R51 Series weatherproof relays (W-suffix) should be used in combination with the appropriate weatherproof socket.

50 Amp and 70 Amp, SPST and SPDT Relays for use in Automotive/Marine/Tractor/Lawn Mower/Rec. Vehicles/Golf Cart Applications.



## Electrical Specifications

### Contact

Contact Material: AgSnO alloy  
Contact Rating: See Chart

### Coil

Coil voltage: See Chart  
Coil resistances: See Chart

### Operational Characteristics

Timing Values . . . . Operate Time: 20 mS max  
Release Time: 20 mS max

### Insulation Characteristics

Dielectric strength: 500 VRMS, between Contacts and Coil

### Environmental Characteristics

Operating: -40°C to +125°C  
Storage: -40°C to +155°C

### Life Expectancy

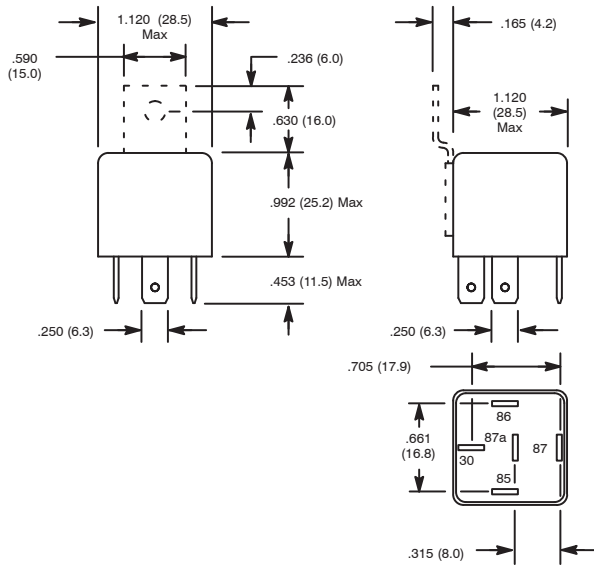
Mechanical Life: 10,000,000 operations (18,000 operations/hr)  
Electrical Life: 100,000 operations (1,200 operations/hr)

### Weight

Std: 1.1 oz (31 gram) approx

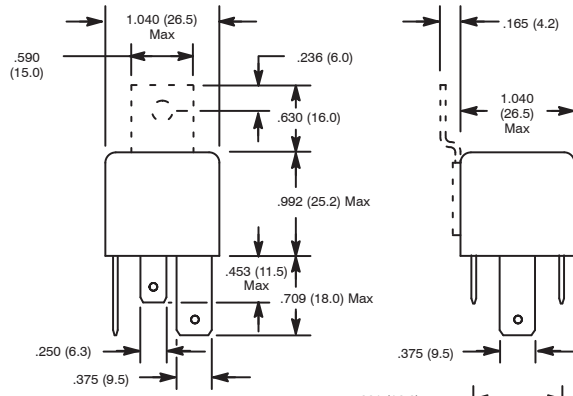
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## D38

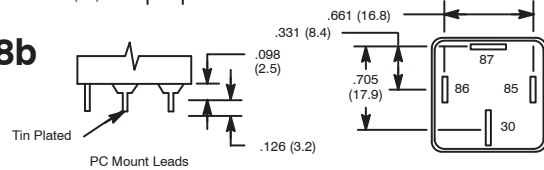


**NOTE:** Dotted line indicates Flange Mount Pin87a for SPDT devices **ONLY**.

## D38a



## D38b



Tin Plated  
PC Mount Leads

## D38c

