

# Plug-In Relays



## Heavy Duty High Power and Micro Plug-In Relays

General purpose relays fit many vehicles and applications. Typical applications include: lighting, starting, horn, heating and cooling.

Standard ISO terminal footprint for Form A, Form C and Form 2A. Relays are available sealed and unsealed (unsealed 40 & 70A relays are supplied with snap-in brackets.)

Datasheet, wiring diagram, and additional information: [littelfuse.com/Plug-In-Relays](http://littelfuse.com/Plug-In-Relays)

### Specifications

- Pull-in voltage: 78V maximum at 12V DC, 15.6 V at 24V DC
- Release voltage: 1.2 V minimum at 12V DC, 2.4 V at 24V DC
- Temperature range: -40°C to 85°C
- Operational life: Electrical to 100,000 cycles.  
Mechanical to 10,000,000 cycles
- Contact Material: Silver alloy
- Dielectric strength: 500 V rms between coil and contact
- Insulation resistance: 100 MΩ minimum (500V DC)
- Relays are rated based on a steady state resistive load. De-rate according to the type of load.
  - Motor load: Inrush can be 5 to 10 x steady state current.
  - Solenoid load: Inrush can be 10 to 20 x steady state current.
  - Incandescent lamp load: Inrush can be 10 to 15 x steady state current.
- Available with PCB terminals, contact Littelfuse for details.

### Heavy Duty Relays • 40A at 12V DC

- Contact rating (Resistive load) at 20°C:
  - 12V DC: Normally Open 40A, Normally Closed 30A
  - 24V DC: Normally Open 20A, Normally Closed 15A
- Contact arrangement: Available as Form A (SPST), Form C (SPDT) and Form 2A (SPST, 2 terminals)
- Vibration resistance: 10-40Hz double amplitude 1.5mm

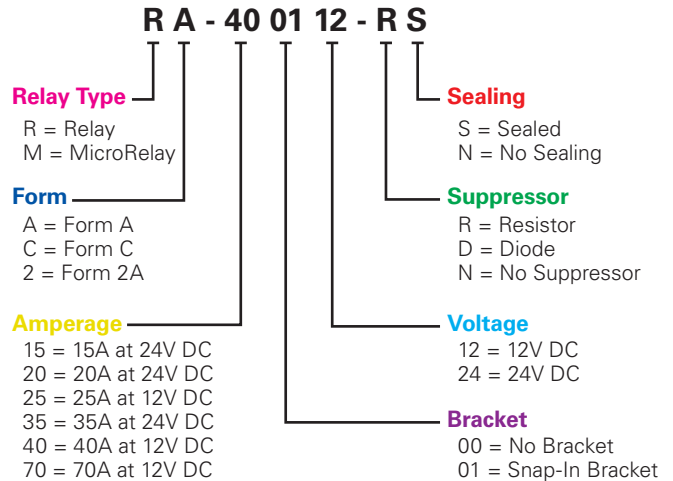
### High Power Relays • 70A at 12V DC

- Contact rating (Resistive load) at 20°C:
  - 12V DC: Normally Open 70A, Normally Closed 60A
  - 24V DC: Normally Open 35A, Normally Closed 30A
- Contact arrangement: Available as Form A (SPST) and Form C (SPDT)
- Vibration resistance: 10-40Hz double amplitude 1.5m

### Micro Relays • 25A at 12V DC

- Contact rating (Resistive load) at 20°C:
  - 12V DC: Normally Open 25A, Normally Closed 20A
- Contact arrangement: Available as Form A (SPST), and Form C (SPDT).
- Vibration resistance: 10-40Hz double amplitude 1.27mm

### Part Numbering System



### Relay Part Numbers

PART NUMBERS		VOLTAGE	AMPS	RELAY TYPE	FORM	BRACKET	SUPPRESSOR TYPE	SEALED
BULK	BOXED							
R2-400112-RN	-	12	40	Relay	2	SPST	•	Resistor
RA-200024-DS	-	24	20	Relay	A	SPST		Diode
RA-400012-DS	-	12	40	Relay	A	SPST		Diode
RA-400112-DN	RA-400112-DN-BX	12	40	Relay	A	SPST	•	Diode
RA-400112-NN	RA-400112-NN-BX	12	40	Relay	A	SPST	•	None
RA-400112-RN	RA-400112-RN-BX	12	40	Relay	A	SPST	•	Resistor
RA-700112-RN	RA-700112-RN-BX	12	70	Relay	A	SPST	•	Resistor
RA-700112-DN	RA-700112-DN-BX	12	70	Relay	A	SPST	•	Diode
RA-700112-NN	RA-700112-NN-BX	12	70	Relay	A	SPST	•	None
RC-200024-DS	-	24	20	Relay	C	SPDT		Diode
RC-200124-DN	RC-200124-DN-BX	24	20	Relay	C	SPDT	•	Diode
RC-200124-NN	RC-200124-NN-BX	24	20	Relay	C	SPDT	•	None
RC-200124-RN	RC-200124-RN-BX	24	20	Relay	C	SPDT	•	Resistor
RC-400012-DS	RC-400012-DS-BX	12	40	Relay	C	SPDT		Diode
RC-400112-DN	RC-400112-DN-BX	12	40	Relay	C	SPDT	•	Diode
RC-400112-NN	RC-400112-NN-BX	12	40	Relay	C	SPDT	•	None
RC-400112-RN	RC-400112-RN-BX	12	40	Relay	C	SPDT	•	Resistor
RC-700112-DN	RC-700112-DN-BX	12	70	Relay	C	SPDT	•	Diode
RC-700112-NN	RC-700112-NN-BX	12	70	Relay	C	SPDT	•	None
RC-700112-RN	RC-700112-RN-BX	12	70	Relay	C	SPDT	•	Resistor
MC-250012-DN	-	12	25	Micro	C	SPDT		Diode
MC-250012-NN	-	12	25	Micro	C	SPDT		None
MC-250012-RN	-	12	25	Micro	C	SPDT		Resistor