

# RELAY MODULES

## PLUGGABLE SLIMLINE RELAYS

RS Series



RSS-624U shown actual size.

- Slim Size (6.2 mm Width)
- SPDT Configuration
- LED Indicator for Relay Energized State
- AC and DC Coil Voltages

At only 6.2 mm thickness the RS Series relay module features a slim DIN Rail mountable interface solution. The modules have a plug-in construction and are available with or without the relay. The built-in LED indicates the relay energizing state. The relay features a SPDT configuration and a maximum switching current of 6A. It is available with several standard coil voltages from 5 Vdc up to 230 Vac/Vdc.

There is a provision for fitting pluggable jumpers which reduces the wiring time. The modules have screw terminals with finger protection for wire termination and offer an IP20 protection rating. The relay has an IP67 protection rating. Both the relay and the module are UL recognized.

### SPECIFICATIONS

#### SOCKET

- Ambient Temperature:** -40 to 70°C (-40 to 158°F)
- Rated Voltage:** 250 Vac
- Rated Current:** 6A (per pole)
- Insulation Voltage (Minimum):** 5000 Vac
- Protection:** IP20
- Socket Material:** PA66 + GF V0 (UL)
- Contacts Spring Material:** QSn6.5-0.1
- Terminal Torque:** 0.6 Nm (5.3 lb/in)
- Wire Strip Length:** 7 mm
- Applicable Relay Type:** RSR Series (41F)

#### COIL DATA [AT 20°C (68°F)]

NOMINAL VOLTAGE (Vdc)	PICK-UP VOLTAGE (Vdc)	DROP-OUT VOLTAGE (Vdc)	MAXIMUM ALLOWABLE VOLTAGE (Vdc) 85°C (185°F)	COIL RESISTANCE (Ω)
5	3.75	0.25	6.50	147 ±10
6	4.50	0.30	7.80	212 ±10
12	9.00	0.60	15.6	848 ±10
24	18.0	1.20	31.2	3390 ±15
48	36.0	2.40	62.4	10600 ±15
60	45.0	3.00	78.0	16600 ±15

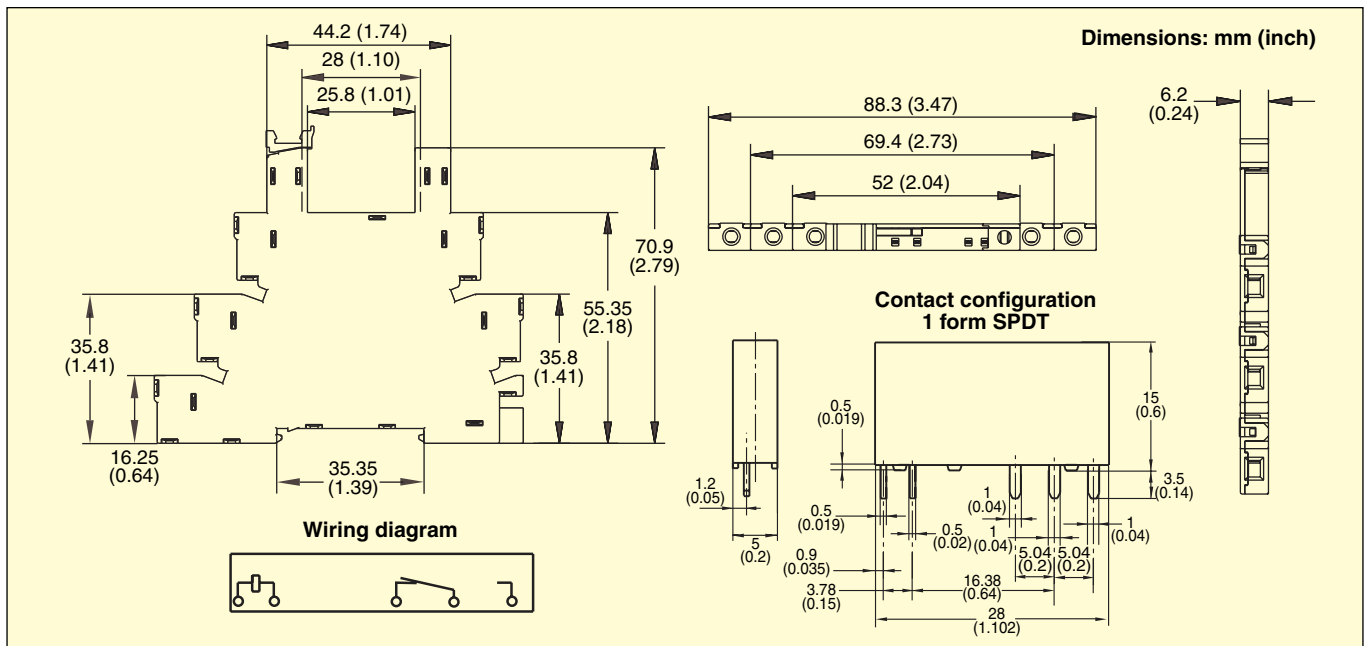


RSR-12DCS shown larger than actual size.

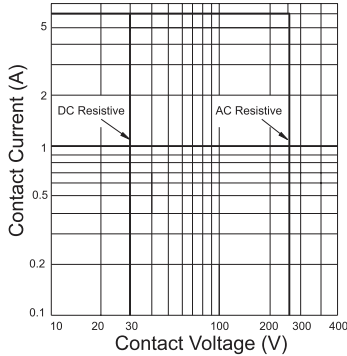
### SUBMINIATURE POWER RELAY CONTACT INFORMATION

- Contact Arrangement:** SPDT
- Contact Resistance:** 100 mΩ (at 1A/6 Vdc)
- Contact Material:** AgNi
- Contact Rating:** 6A/250 Vac, 6A/30 Vdc (resistive load)
- Maximum Switching Voltage:** 400 Vac/125 Vdc
- Maximum Switching Current:** 6A resistive
- Maximum Switching Power:** 1500 VA/180 W
- Mechanical Life:** 10 million cycles
- Electrical Life:** 10,000 cycles at 85°C (185°F)
- Insulation Resistance:** 1000 mΩ (at 500 Vdc)
- Dielectric Strength:** 4000 Vac/1 minute (between coil and contacts); 1000 Vac/1 minute (between open contacts)

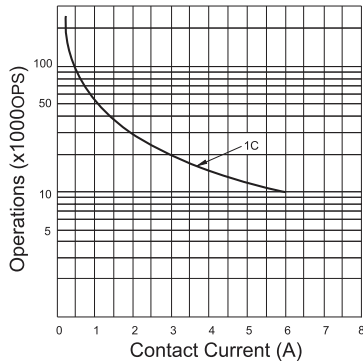
- Operate Time:** Maximum 8 ms (at nominal voltage)
- Release Time:** Maximum 4 ms (at nominal voltage)
- Shock Resistance (Functional):** 50 m/s<sup>2</sup> (5 g)
- Shock Resistance (Destructive):** 1000 m/s<sup>2</sup> (100 g)
- Vibration Resistance:** 1 mm double amplitude maximum @10 55 Hz, 6G maximum
- Humidity:** 5 to 85% RH
- Ambient Temperature:** -40 to 85°C (-40 to 185°F)
- Unit Weight:** 5.4 g (0.2 oz)
- COIL**
- Coil Power Consumption:** 170 mW (5 to 24 Vdc), 210 mw (48 Vdc, 60 Vdc)



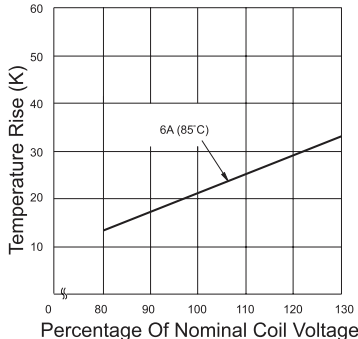
**MAXIMUM SWITCHING POWER**



**ENDURANCE CURVE**



**COIL TEMPERATURE RISE**



**COMPLETE RELAY MODULES: SOCKET + RELAY**

To Order Visit [omega.com/rs](http://omega.com/rs) series for Pricing and Details

MODEL NO.	DESCRIPTION
<b>RSM-05CU</b>	Relay module, 5 Vdc coil, SPDT, LED
<b>RSM-06CU</b>	Relay module, 6 Vdc coil, SPDT, LED
<b>RSM-12CU</b>	Relay module, 12 Vdc coil, SPDT, LED
<b>RSM-24CU</b>	Relay module, 24 Vdc coil, SPDT, LED
<b>RSM-110CU</b>	Relay module, 110 Vac coil, SPDT, LED
<b>RSM-220CU</b>	Relay module, 220 Vac coil, SPDT, LED

Ordering Examples: **RSM-24CU**, SPDT Relay module with 24 VDC coil and LED.  
**RSM-110CU**, SPDT Relay module with 110 VAC coil and LED.

**RELAY SOCKETS**

MODEL NO.	DESCRIPTION
<b>RSS-624D</b>	Relay socket, for 5 to 24 Vdc coil voltages, LED
<b>RSS-624U</b>	Relay socket, for 12 to 24 Vdc/Vdc coil voltages, LED
<b>RSS-4860U</b>	Relay socket, for 48 to 60 Vac/Vdc coil voltages, LED
<b>RSS-110U</b>	Relay socket, for 110 to 125 Vac/Vdc coil voltages, LED
<b>RSS-220U</b>	Relay socket, for 220 to 240 Vac/Vdc coil voltages, LED

**RELAYS**

MODEL NO.	DESCRIPTION
<b>RSR-05DCS</b>	Relay, SPDT, 5 Vdc coil
<b>RSR-06DCS</b>	Relay, SPDT, 6 Vdc coil
<b>RSR-12DCS</b>	Relay, SPDT, 12 Vdc coil
<b>RSR-24DCS</b>	Relay, SPDT, 24 Vdc coil
<b>RSR-48DCS</b>	Relay, SPDT, 48 Vdc coil
<b>RSR-60DCS</b>	Relay, SPDT, 60 Vdc coil (use in RSS-110U/220U for AC coil voltage)

**ACCESSORIES**

MODEL NO.	DESCRIPTION
<b>RSJ-BK</b>	Jumper for RSM, Black, 36A, 250V, 20-position
<b>RSJ-RD</b>	Jumper for RSM, Red, 36A, 250V, 20-position
<b>RSJ-BL</b>	Jumper for RSM, Blue, 36A, 250V, 20-position
<b>RST-1</b>	Marking tag strip for RSM, white, 16 tags/strip
<b>RSP-1</b>	Partition plate for RSM, 2.2 mm wide