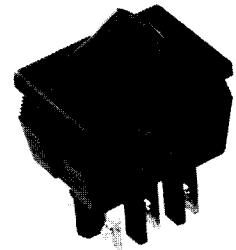


4000 Series: Maintained Action Mini-Rocker Switches

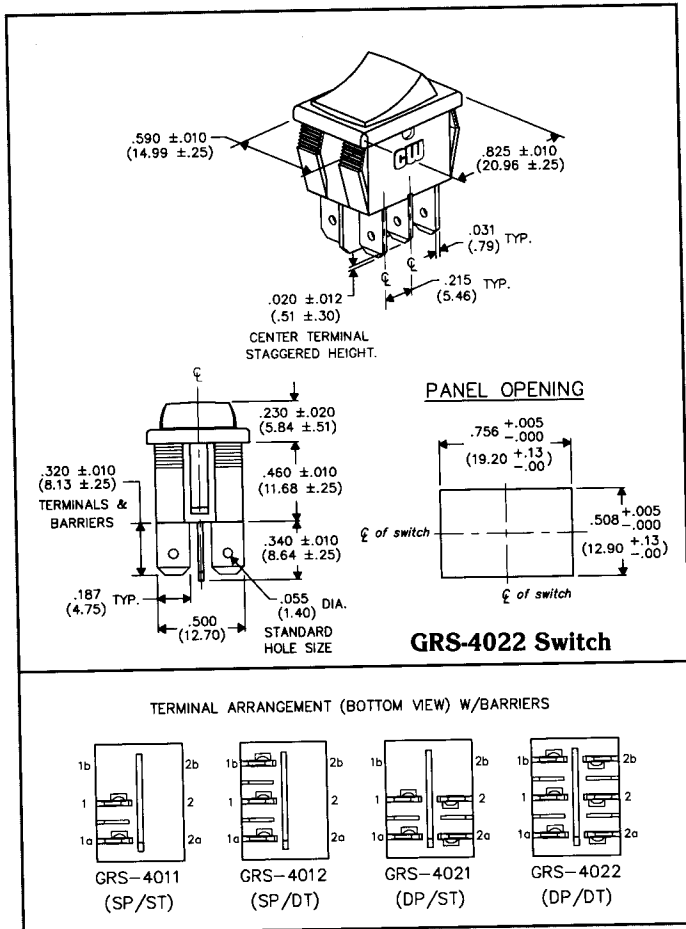
CW Mini-Rocker Switches are available in single or double pole and are capable of switching currents normally associated with units much larger in size.

Typical applications include:

Motor-driven devices, instruments, household appliances, automobile accessories, recreational vehicles, and power tools.



GRS-4022 Switch



MATERIALS

Rocker Knob: Nylon 94V-2

Housing: Nylon 94V-2

Terminal & Moving Contact:

Copper Alloy, and/or Copper Alloy
Silver Plated.

Springs: Music Wire

Plunger: Brass

MOUNTING

Self locks without hardware when popped into a .756" (19.20 mm) x .508" (12.90 mm) panel cutout. Acceptable panel thickness range is from .050" (1.27 mm) to .150" (3.81 mm)

CAUTION: Burr direction must be away from the direction of insertion.

TYPES AVAILABLE

TYPE	CIRCUIT	ELECTRICAL RATING†	LISTING AGENCY††
GRS-4011-8,-13,-16	SPST	-8: 8 A @ 125 VAC / 4A @ 250 VAC 3 A @ 277 VAC	UL/CSA
GRS-4012-8,-13,-16	SPDT	-13: 13 A @ 125 VAC / 10 A @ 250 VAC	UL/CSA
GRS-4021-8,-13,16	DPST	1/2 HP 125 - 250 VAC 5 A 14V (T)	
GRS-4022-8,-13,-16	DPDT	-16: 16 A @ 125 - 250 VAC 3/4 HP 125 - 250 VAC 10 A 14 V (T) 3 A 125 V (L) 10 (4) A 250-μ (VDE)*	UL/CSA/VDE

* Switches marked μ are acceptable for use as power switches provided there is a plug disconnect or a switch with open contact gaps of 3 mm minimum.

†All ratings are on a load per pole, opposite polarity basis. Additional ratings may be available, consult factory.

††Due to ongoing advancements, additional agency certifications may be available, consult factory.

OPTIONAL FEATURES

COLORS:

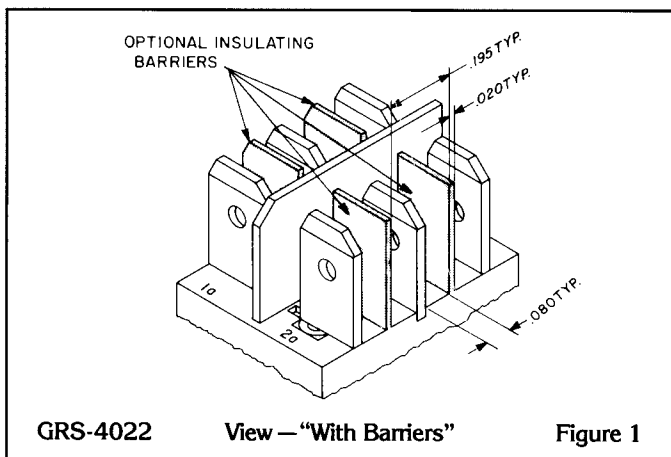
Standard switch includes black housing and rocker knob. Knobs and housings can be molded in many colors. Contact us if you have unusual color needs. . . such as matching mating parts or satisfying unique requirements of your stylists. Our technicians can usually match any color required. Check factory for more information.

SPECIAL MARKINGS:

Printing on the knob or housing indicating message appropriate to the application ("ON - OFF", "HI - LO", "I/O" etc.) is available. Check factory.

TERMINATION:

Standard is solderless, .187" (4.75 mm) x .032" (.81 mm). Other options include: .110" (2.79 mm) x .032" (.81 mm) solderless (G-20-173); .187" (4.75 mm) x .020" (.51 mm) solderless (G-20-180); .110" (2.79 mm) wide with .048" (1.22 mm) x .237" (6.02 mm) slot for easier hand soldering (G-20-179).



INSULATING BARRIERS:

Standard on all double pole switches is a molded insulating barrier between rows of terminals on adjacent poles. **Optional** on single pole and double pole switches are insulating barriers between terminals of the same pole. Insulating barriers can permit the use of less costly uninsulated solderless connectors. See Figure 1. To specify barriers between terminals of same pole on both single and double pole versions request switch "with barriers."

FEATURES

- Crisp detent action.
- Small switch—high current switching.
- Active switch elements enclosed and protected.
- Optional insulation barriers between terminals on same pole.
- Easy to terminate with solderless connectors or by hand soldering.
- Brass plunger withstands high temperature.
- Insulating barriers between terminals of opposite polarity.
- Self cleaning contacts.
- Color options.

GRS-4022 Switch

PERFORMANCE STANDARDS

Endurance:

- 100,000 cycles, no load, minimum
- 25,000 cycles at rated load minimum up to 16 A @ 125 Vac
- 10,000 cycles at rated load minimum 16 A @ 250 Vac

Contact Resistance:

- Less than .01 Ω at 10 mA (Initial)

Operating Temperature:

- 105°C maximum

High Voltage Dielectric Withstanding Voltage:

- 2,500 V, 60 Hz for 1 minute between mounting surface and circuit connections

Humidity: Insulation resistance > 10³ M Ω after

- 100 hours at 95% R.H. and 50°C followed by 1 hour dry at ambient room conditions

HOW TO ORDER

- Step 1:** Select part number for your circuit needs and maximum current requirements.
- Step 2:** Standard switch color is all black. Specify optional knob or housing colors and any special markings required.
- Step 3:** Standard terminal is solderless .187" (4.75 mm) x .032" (.81 mm) and needs no further identification. Specify optional terminal if needed.
- Step 4:** Insulating barrier between rows of terminals on adjacent poles is standard. Specify "with barriers" for barriers between terminals of the same pole.