

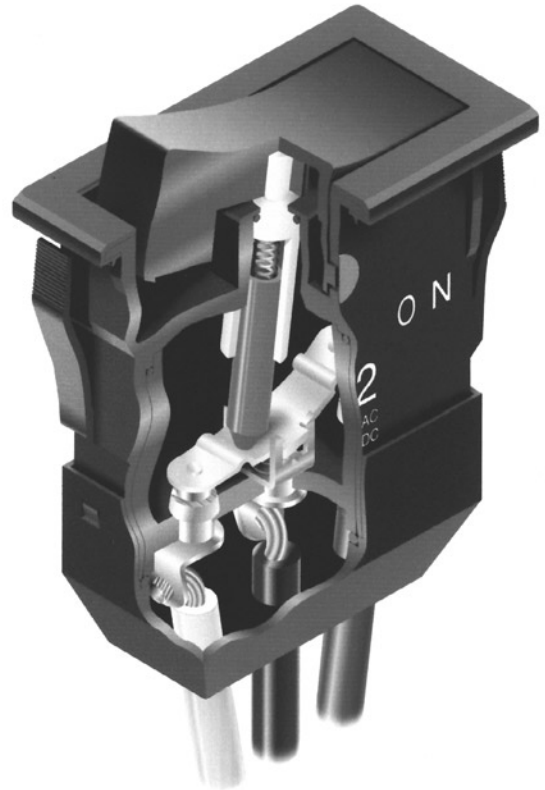
Distinctive Characteristics

Single unit construction of the flange and outer housing gives added protection from environmental elements.

Specially designed contact mechanism for breaking light welds.

Minimal contact bounce achieved with specially designed interlocked switching mechanism.

Heat resistant resin used for outer housing, inner case, and cover on wire lead models meets UL94V-0 flammability standard and provides high arc and tracking resistance.



Sealed Construction Meets IP60 & IP67 Standards

Solder lug and screw terminal models meet IP67 of IEC60529 Standards at front panel (dust tight and water protected for temporary immersion). Behind panel standard is IP60 (dust tight but not water protected).

Wire lead models conform fully to IP67 of IEC60529 Standards at front and behind panel (dust tight and water protected for temporary immersion).

These models are epoxy sealed at the switch base and covered by an outer case for further protection from dust and water. (Switches cannot be operated under water. Contact factory for further details regarding operating environment.)

Actual Size



General Specifications

Electrical Capacity (Resistive Load)

Power Level: 15A @ 125/250V AC or 15A @ 30V DC

Other Ratings

Contact Resistance: 10 milliohms maximum for solder lug & screw terminal models;
30 milliohms maximum for wire lead terminal models

Insulation Resistance: 200 megohms minimum @ 500V DC

Dielectric Strength: 1,250V AC minimum between contacts for 1 minute minimum;
3,750V AC minimum between contacts & case for 1 minute minimum

Mechanical Life: 30,000 operations minimum

Electrical Life: 15,000 operations minimum for maintained circuits &
10,000 operations minimum for momentary circuits

Angle of Throw: 24°

Materials & Finishes

Rocker: Polyphenylene ether

Outer Housing: Polyamide (UL94V-0)

Inner Case: Melamine (UL94V-0)

Cover for Wire Lead Models: Glass fiber reinforced polyamide (UL94V-0)

Flange Gasket: Nitrile butadiene rubber

Movable Contactor: Brass with silver plating

Movable Contacts: Silver alloy plus copper with silver plating

Stationary Contacts: Silver alloy plus copper with silver plating

Terminals: Copper with tin plating for solder lug & wire lead; brass with silver plating for screw lug

Wire Lead Covers: Heat resistant polyvinyl chloride (Leads are AWG 14)

Environmental Data

Operating Temp Range: -25°C through +85°C (-13°F through +185°F)

Humidity: 90 ~ 95% humidity for 96 hours @ 40°C (104°F)

Vibration: 10 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range & returning in 1 minute; 3 right angled directions for 2 hours

Shock: 50G (490m/s²) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

Front Panel Seal: IP67 of IEC60529, dust tight & water protected during temporary immersion for all models


Behind Panel Seal: IP60 of IEC60529, dust tight but not water protected for solder lug & screw terminal models
IP67 of IEC60529, dust tight & water protected during temporary immersion for wire lead models


Installation


Soldering Time & Temp: 4 seconds maximum @ 410°C maximum for manual soldering

Standards & Certifications

Flammability Standards: UL94V-0 outer housing, inner case, & outer cover on wire lead models

 **UL Recognized:** All models recognized at 15A @ 125/250V AC & 15A @ 30V DC; UL File No. WOYR2.E44145. Add "/U" to end of part number to order UL mark on switch.

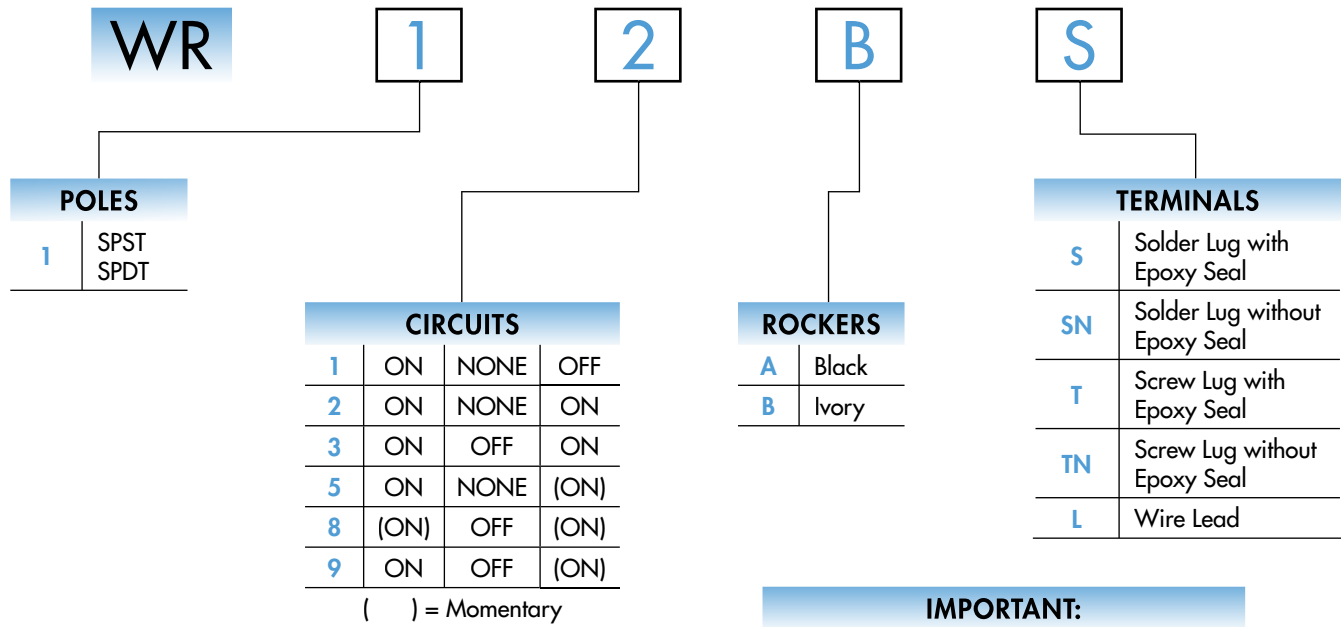
 **C-UL Recognized:** All models recognized at 15A @ 125/250V AC & 15A @ 30V DC; UL File No. WOYR8.E44145. Add "/UC" to end of part number to order C-UL mark on switch.

 **VDE Approved:** All models approved at 15A @ 250V AC; VDE License No. 126501. Add "/V" to end of part number to order VDE mark on switch.

EN Conformity: WT11 & WT12 models meet European Norm for 3mm contact gap to prevent contact welds; EN No. 61058-1

Wiring Material Standards: UL AWM 1015 Recognized at Flammability VW-1; Temperature Range -20°C ~ +105°C; Maximum Load 600V; AWG 14. CSA TEW 105 Certified at Temperature Range -20°C ~ +105°C; Maximum Load 600V

TYPICAL SWITCH ORDERING EXAMPLE



IMPORTANT:



Switches are supplied without UL, CSA, & VDE marking unless specified. Specific models & ratings noted on General Specifications page.

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

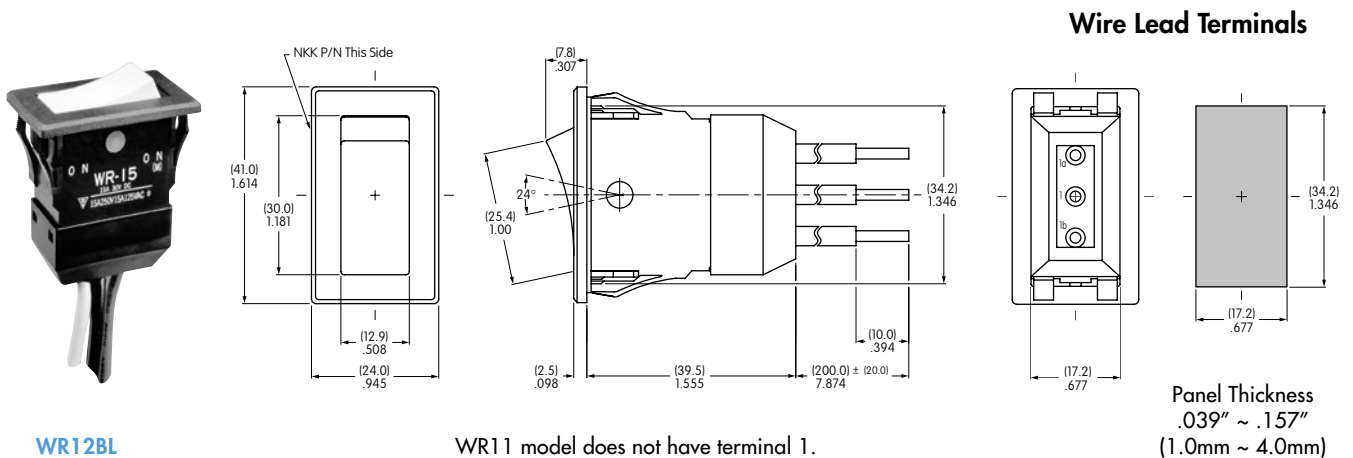
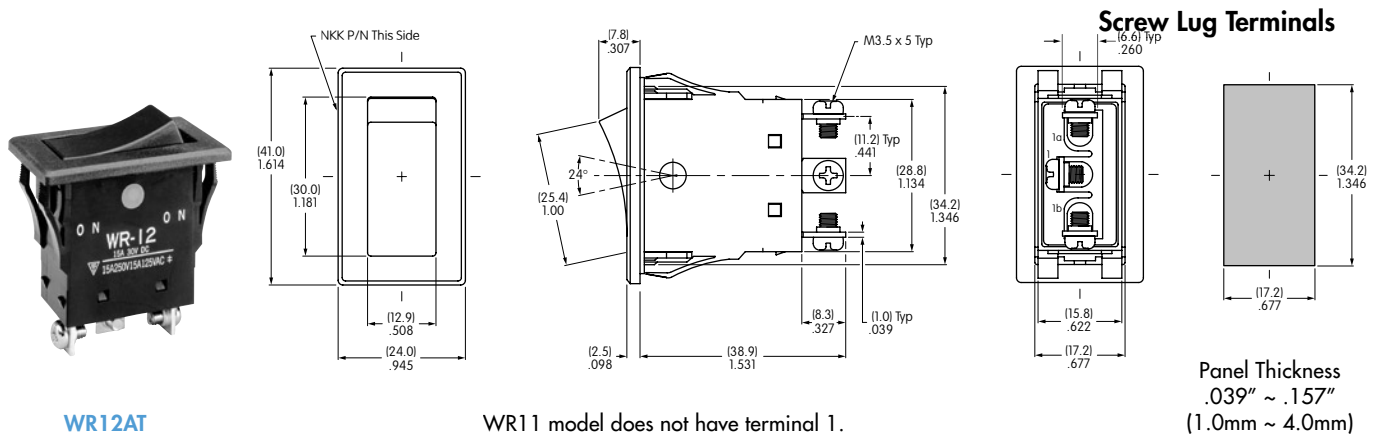
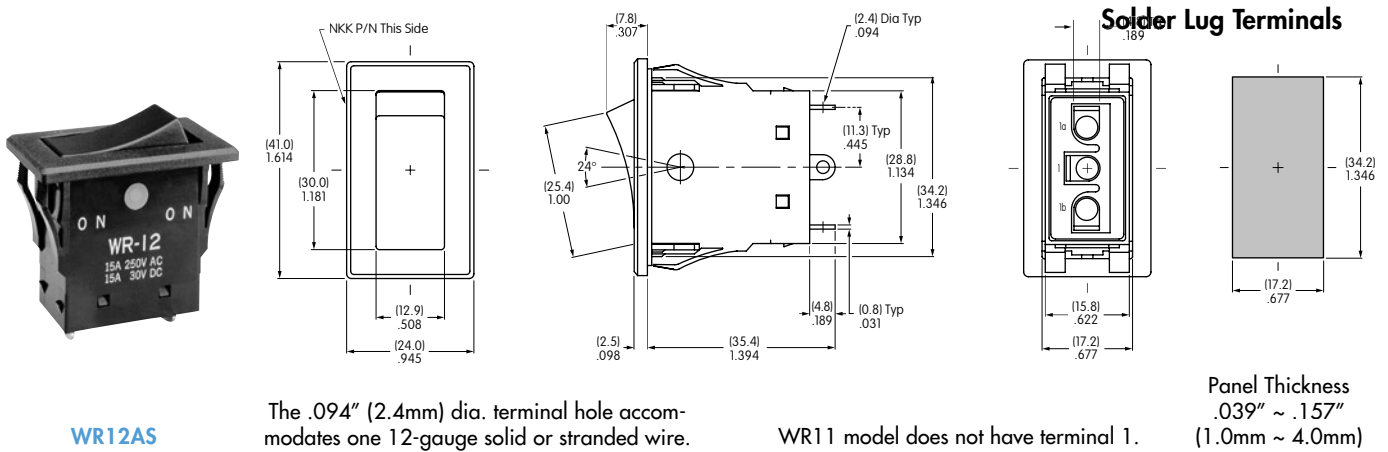
WR12BS



POLES & CIRCUITS

| Pole | Model | Rocker Position () = Momentary | | | Connected Terminals | | | Throw & Schematics |
|------|--------------------------------------|------------------------------------|-----------------------------------|----------------------------------|---------------------|--------|------|--|
| | | Down | Center | Up | Down | Center | Up | |
| SP | WR11 | ON | NONE | OFF | 1a-1b | OPEN | OPEN | Note: Terminal numbers are not actually on wire lead models. |
| SP | WR12 WR13 WR15 WR18 WR19 | ON ON ON (ON) ON | NONE OFF NONE OFF OFF | ON ON (ON) (ON) (ON) | 1-1b | OPEN | 1-1a | |

TYPICAL SWITCH DIMENSIONS



STANDARD WIRE COLOR SCHEME

Wire leads are covered with heat resistant vinyl in accordance with UL 1015 and CSA TEW 105 Standards for Appliance Wiring Material (AWM).

| Terminal Numbers & Wire Colors | | | |
|--------------------------------|-------|-------|-------|
| | 1a | 1 | 1b |
| WR11 | Black | | White |
| WR12-19 | White | Black | Red |