Toggles

Rockers **B**

Pushbuttons

Illuminated PB

Programmable

Keylocks

Rotaries

Slides

Tactiles

Tilt

Touch

Indicators

Accessories

Supplement

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 & quick connect 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 circuit 11 and 12 models
10,000 operations minimum for circuit 13, 15, 18, 19 models
Angle of Throw: 24°

Materials & Finishes
Rocker: Phenylene oxide
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: Copper with silver plating
Movable Contacts: Silver alloy plus copper with silver plating
Stationary Contacts: Silver alloy plus copper with silver plating
Terminals: Brass with tin plating
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/s^2) 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 & quick connect models
IP67 of IEC60529, dust tight & water protected during temporary immersion for wire lead models

Installation
Soldering Time & Temp: Manual Soldering: See Profile A in Supplement section.
Cleaning: Hand clean locally using alcohol based solution.

Standards & Certifications
Flammability Standards: UL94V-0 outer housing, inner case, & outer cover on wire lead models
UL: **File No. E44145 - Recognized only when ordered with marking on switch.**
Add "/U" or "/CUL" to end of part number to order UL recognized switch.
All models approved at 15A @ 125/250V AC & 15A @ 30V DC.
EN: **No. 61058-1**
WR11 & WR12 models meet European Norm for 3mm contact gap to prevent contact welds.
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.

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.

Available with solder lug, screw, quick connect, and wire lead terminations.

Sealed Construction Meets IP60 & IP67 Standards

Solder lug, screw, and quick connect terminal models meet IP67 of IEC60529 Standards at front panel (dust tight and water protected for temporary immersion, patent pending). 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). Switch base is epoxy sealed 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

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TYPICAL SWITCH ORDERING EXAMPLE

| WR | 1 | 2 | B | S |

Poles

| 1 | SPST
SPDT |

Circuits

1	ON	NONE	OFF
2	ON	NONE	ON
3	ON	OFF	ON
5	ON	NONE	(ON)
8	(ON)	OFF	(ON)
9	ON	OFF	(ON)
( ) = Momentary			

Rockers

A	Black
* B	Ivory

* Contact Factory
for Quick Connect
with Ivory Rocker

Terminals

S	Solder Lug with Epoxy Seal
SN	Solder Lug without Epoxy Seal
T	Screw Lug with Epoxy Seal
TN	Screw Lug without Epoxy Seal
F	.250" (6.35mm) Quick Connect with Epoxy Seal
FN	.250" (6.35mm) Quick Connect without Epoxy Seal
L	Wire Lead

IMPORTANT:

⚠️ Switches are supplied without UL & cULus marking unless specified.
UL & cULus recognized only when ordered with marking on the switch.
Specific models, ratings and ordering instructions are noted on the General
Specifications page.

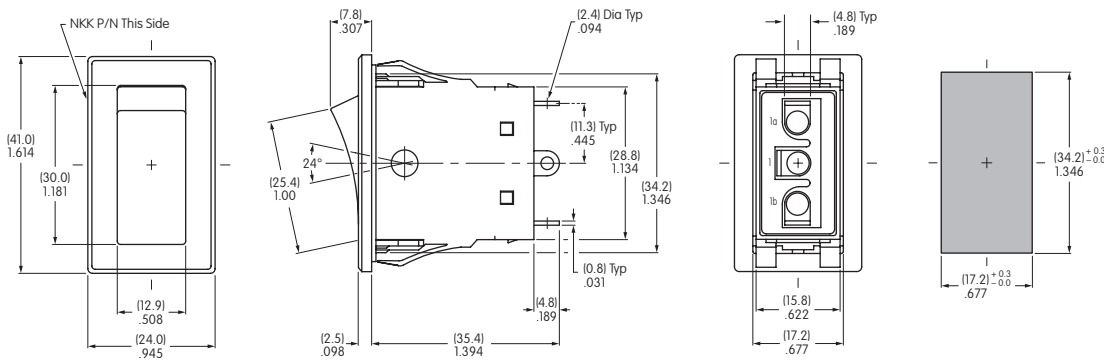### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

WR12BS

Ivory Rocker

SPDT
ON-NONE-ON Circuit

Solder Lug Terminals
with Epoxy Seal

Environmentally Sealed Rockers

Series WR

POLES & CIRCUITS

Pole	Model	Rocker Position ( ) = Momentary			Connected Terminals			Throw & Schematics	
		Down	Center	Up	Down	Center	Up	Note:	Terminal numbers are not actually on wire lead models.
SP	WR11	ON	NONE	OFF	1a-1b	OPEN	OPEN	SPST	1a (COM) • 1b •
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	SPDT	1 (COM) • 1a • • 1b

TYPICAL SWITCH DIMENSIONS

Solder Lug Terminals

(7.8) .307
(2.4) Dia Typ .094
(4.8) Typ .189
(41.0) 1.614
(30.0) 1.181
(11.3) Typ .445
(28.8) 1.134
(34.2) 1.346
24°
(25.4) 1.00
(0.8) Typ .031
1a
1
1b
(34.2) +0.3 −0.0 1.346
(12.9) .508
(4.8) .189
(15.8) .622
(17.2) +0.3 −0.0 .677
(24.0) .945
(2.5) .098
(35.4) 1.394
(17.2) .677

NKK P/N This Side

ON   ON
WR-12
25A 250V AC
15A 30V DC

WR11 model does not have terminal 1.

Panel Thickness
.039" ~ .157"
(1.0mm ~ 4.0mm)

WR12AS

Screw Lug Terminals
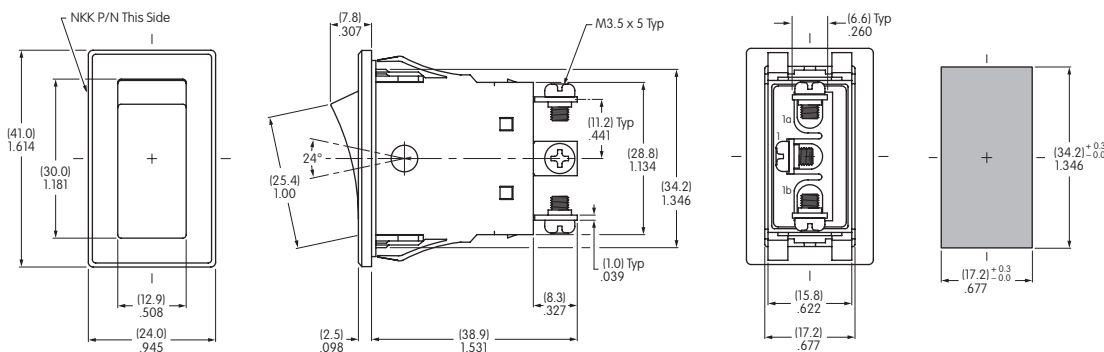
(7.8) .307
M3.5 x 5 Typ
(6.6) Typ .260
(41.0) 1.614
(30.0) 1.181
(11.2) Typ .441
(28.8) 1.134
(34.2) 1.346
24°
(25.4) 1.00
(1.0) Typ .039
1a
1b
(34.2) +0.3 −0.0 1.346
(12.9) .508
(8.3) .327
(15.8) .622
(17.2) +0.3 −0.0 .677
(24.0) .945
(2.5) .098
(38.9) 1.531
(17.2) .677

NKK P/N This Side

ON   ON
WR-12
15A 250V AC

WR11 model does not have terminal 1.

Panel Thickness
.039" ~ .157"
(1.0mm ~ 4.0mm)

WR12AT

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Series WR

Environmentally Sealed Rockers

TYPICAL SWITCH DIMENSIONS

.250" (6.35mm) Quick Connect Terminals

NKK P/N This Side

(7.8) .307

(1.65) Dia Typ .065
(0.8) Typ .031

(41.0) 1.614
(30.0) 1.181
(25.4) 1.00

24°

(6.35) (7.5) .250 .295

(34.2) 1.346

(22.6) .890

(28.8) 1.134

1a

1

1b

(34.2) +0.3 −0.0 1.346

(12.9) .508
(24.0) .945

(2.5) .098

(7.95) .313
(10.75) .423

(41.35) 1.628

(3.95) .156

(3.6) .142

(15.8) .622
(17.2) .677

(17.2) +0.3 −0.0 .677

WR13AF

WR11 model does not have terminal 1.

Panel Thickness
.039" ~ .157"
(1.0mm ~ 4.0mm)

Wire Lead Terminals

NKK P/N This Side

(7.8) .307

(41.0) 1.614
(30.0) 1.181
(25.4) 1.00

24°

(34.2) 1.346

1a

1

1b

(34.2) +0.3 −0.0 1.346

(12.9) .508
(24.0) .945

(2.5) .098

(39.5) 1.555

(200.0) ± (20.0) 7.874

(10.0) .394

(17.2) .677

(17.2) +0.3 −0.0 .677

WR15BL

WR11 model does not have terminal 1.

Panel Thickness
.039" ~ .157"
(1.0mm ~ 4.0mm)

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