

# Distinctive Characteristics

Industry's first molded rocker with TV rating. Designed to handle large inrush current. JWM models certified for TV-5 rating and JWL models for TV-8 rating.

Special 5A @ 72V DC rating for JWL models to use in worldwide telecommunication equipment for power distribution applications.

Prominent external insulating barriers increase insulation resistance and dielectric strength.

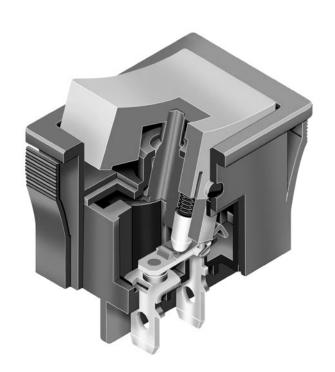
Constructed for dust resistance with interior cover between actuator and contact area.

Specially designed to break light contact welds.

JWMW panel seal version meets IP67 of IEC60529 Standards (similar to NEMA 4 and 6).

Terminals are molded in and epoxy sealed to lock out flux, dust, and other contaminants.

Housing and case of heat resistant resin meet UL 94V-0 standard.



Actual Size JWM





# General Specifications

#### **Electrical Capacity (Resistive Load)**

Power Level: 10A @ 125/250V AC for JWM & JWMW models; 10A @ 30V DC for JWMW;

16A @ 125/250V AC for JWL models; 5A @ 72V DC for telecommunication applications

**Other Ratings** 

**Contact Resistance:** 10 milliohms maximum for JWM & JWMW; 20 milliohms maximum for JWL

Insulation Resistance: 1,000 megohms minimum @ 500V DC

**Dielectric Strength:** 2,000V AC minimum between contacts for 1 minute minimum;

4,000V AC minimum between contacts & case for 1 minute minimum

Mechanical Life: 25,000 operations minimum **Electrical Life:** 25,000 operations minimum

JWM & JWMW Single Pole 3.92N & Double Pole 7.84N **Nominal Operating Force:** 

JWL Single Pole 5.00N & Double Pole 10.00N

Angle of Throw: 26°

**Materials & Finishes** 

Housing/Frame & Barrier: Polyamide (UL94V-0) **Movable Contacts:** Silver alloy Interior Seal for JWM & JWL: Polyphenylene sulfide **Stationary Contacts:** Silver alloy

> Brass with silver plating Case/Base: Melamine (UL94V-0) Terminals:

**Environmental Data** 

**Operating Temp Range:** -25°C through +70°C (-13°F through +158°F) for JWM & JWL;

-25°C through +85°C (-13°F through +185°F) for panel seal JWMW model

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

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) Sealing: IP67 of IEC60529 standard for panel seal JWMW model; dust resistant inner seal for others.

Installation

**Soldering Time & Temp:** Manual Soldering: See Profile A in Supplement section.

Standards & Certifications

**UL & C-UL Recognized:** 

**CSA Certified:** 

Flammability Standards: UL94V-0 for housing/frame & case/base of JWL, JWM, & JWMW models TV Ratings for UL & CSA: JWM & JWMW (TV-5) Overload Test @ 120V AC for 50 operations:

UL File No. WOYR2.E44145 Steady State Current (rms) 7.5A; Minimum Inrush Current (peak) 111A CSA File No. 023535-0-000 JWM & JWMW (TV-5) Endurance Test @ 120V AC for 25,000 operations:

Steady State Current (rms) 5A; Minimum Inrush Current (peak) 78A

JWL (TV-8) Overload Test @ 120V AC for 50 operations:

Steady State Current (rms) 12A; Minimum Inrush Current (peak) 163A

JWL (TV-8) Endurance Test @ 120V AC for 25,000 operations:

Steady State Current (rms) 8A; Minimum Inrush Current (peak) 117A

JWM & JWMW models recognized at 10A @ 250V AC & JWMW at 10A @ 30V DC; JWL models recognized at 16A @ 250V AC; 5A @ 72V DC (specify "/U-DC" after part

number to request UL rating be marked on DC rated switches);

UL File No. WOYR2.E44145; C-UL File No. WOYR8.E44145. JWM & JWMW models certified at 10A @ 250V AC;

JWL models certified at 16A @ 250V AC; CSA File No. 023535-0-000 JWM models approved at steady state 5A, inrush 80A, resistive 10A, & **VDE Approved:** 

> motor load 6A all at 250V AC; VDE License No. 115637; JWL models approved at steady state 8A, inrush 128A, resistive 16A, & motor load 8A all at 250V AC; VDE License No. 115637.

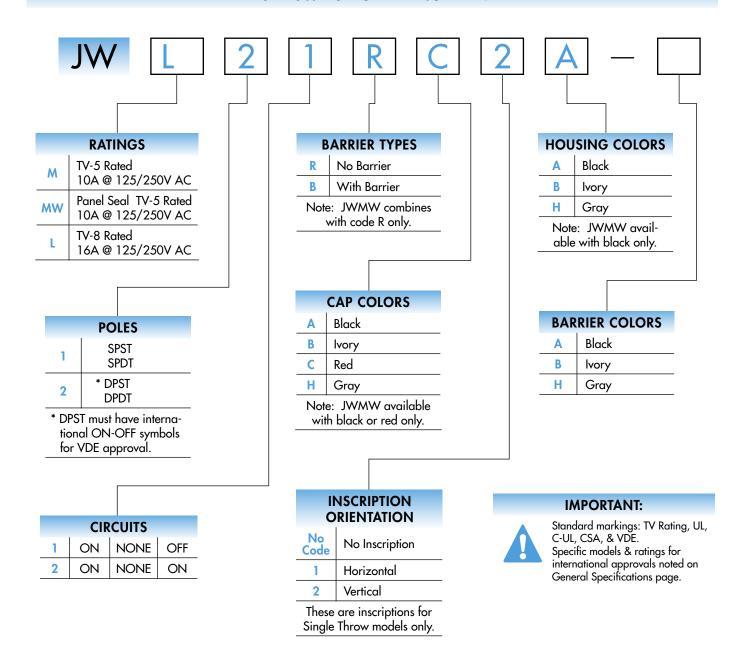
Note: JWM & JWL Double Pole, Single Throw models approved only with the

international on-off symbols on the actuator.





#### TYPICAL SWITCH ORDERING EXAMPLE



#### **DESCRIPTION FOR TYPICAL ORDERING EXAMPLE**

#### JWL21RC2A





## Internationally Approved TV Rated Rockers Series JW

#### **RATINGS**

TV-5 Rated **Power Level** 10A @ 125/250V AC

Panel Seal TV-5 Rated **Power Level** 10A @ 125/250V AC

**TV-8 Rated Power Level** 16A @ 125/250V AC

POLES & CIRCUITS									
		Rocker Position			Connected Terminals			Throw & Schematics	
Pole	Model	Down	Center	Up	Down	Center	Up	ote: Terminal numbers are not actually on the switch. Actuator positions oriented with switch part number facing front.	
SP	JWM11 JWMW11 JWL11	ON	NONE	OFF	1-1b	OPEN	OPEN	SPST 1 (COM)	
SP	JWM12 JWMW12 JWL12	ON	NONE	ON	1-1b	OPEN	1-1a	SPDT 1a • 1 (COM)	
DP	JWM21 JWMW21 JWL21	ON	NONE	OFF	1-1b 2-2b	OPEN	OPEN	DPST 1 (COM) 2 0 1b	2b
DP	JWM22 JWMW22 JWL22	ON	NONE	ON	1-1b 2-2b	OPEN	1-1a 2-2a	DPDT 10 (COM) 2 • 1 (COM) 2 •	<b>●</b> 2b

### **BARRIER TYPES & COLORS**

No Barrier

Flange/Housing Material: Polyamide

Finish: Matte



**JWL** 

No-barrier type has a flat flange which is an integral part of the switch.

JWMW panel seal device has exterior seal of acrylonitrile butadiene rubber covering the flange.



With Barrier

Barrier Material: Polyamide

Finish: Matte





Barrier type designates that either AT217 (for JWM) or AT218 (for JWL) is factory assembled. Dimensions for barriers are shown in the Accessories section.

**Barrier Colors** Available:









## Internationally Approved TV Rated Rockers Series JW

#### **CAP COLORS**



Cap Material: Polyphenelene Oxide

Finish: Matte

Rocker cap is an integral part of the switch and not available separately. JWMW available with black or red caps only.

Cap Colors Available:







#### **INSCRIPTIONS**



No Inscription



Inscription for **Horizontal Mounting** 



Inscription for **Vertical Mounting** 







DPST models without inscriptions do not have VDE approval.

The IEC symbols for On-Off are supplied with Single Throw models only. Orientation of inscription must be selected. Inscription Colors: Black ink on Ivory or Gray cap. White ink on Black or Red cap. Contact factory for other inscriptions.

#### **HOUSING**

Material: Polyamide

Finish: Matte

**Colors Available:** 







JWMW panel seal models available in black housing only.

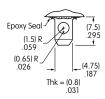
#### **TERMINALS**

Solder Lug/.110" (2.8mm) Quick Connect

Solder Lug/.187" (4.75mm) Quick Connect

JWM & JWMW

JWL



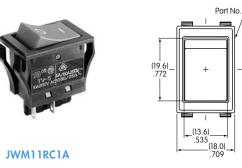
This switch assembly with connectors is not UL, C-UL, CSA, or VDE approved.



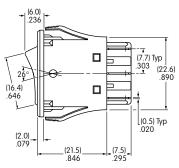


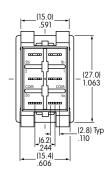
#### TYPICAL SWITCH DIMENSIONS

TV-5 No Barrier • 10 Amp



Single & Double Pole



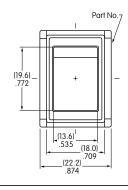


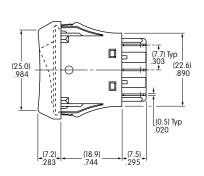
JWM11RC1A

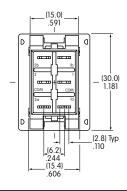
TV-5 With Barrier • 10 Amp

Single & Double Pole







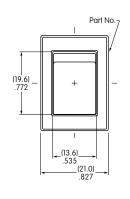


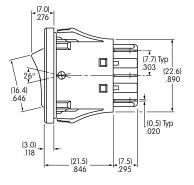
JWM11BCA-H

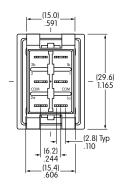
Panel Seal • TV-5 No Barrier • 10 Amp

Single & Double Pole









JWMW22RCA

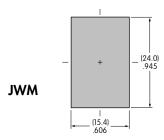
Single pole double throw models do not have terminals 2a, 2, & 2b; single throw models do not have 1a & 2a.

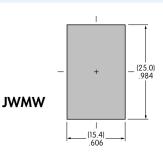
#### PANEL CUTOUTS FOR JWM MODELS

#### **Panel Thickness Range**

Without Barrier (JWM & JWMW): .039" ~ .157" (1.0mm ~ 4.0mm)

With Barrier (JWM): .024" ~ .126" (0.6mm ~ 3.2mm)







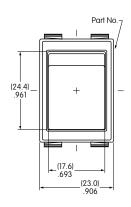


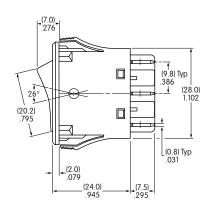
#### TYPICAL SWITCH DIMENSIONS

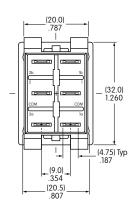
#### TV-8 No Barrier • 16 Amp











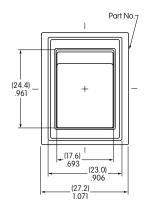
JWL21RC2A

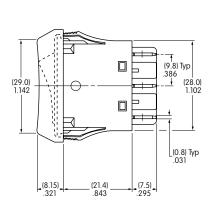
Single pole double throw models do not have terminals 2a, 2, & 2b; single throw models do not have 1a & 2a.

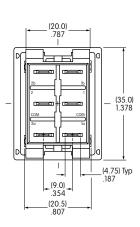
#### TV-8 With Barrier • 16 Amp

Single & Double Pole









JWL11BCA-H

Single pole double throw models do not have terminals 2a, 2, & 2b; single throw models do not have 1a & 2a.

### PANEL CUTOUT FOR JWL MODELS

**Panel Thickness Range** 

Without Barrier: .039" ~ .157" (1.0mm ~ 4.0mm)

With Barrier: .024" ~ .126" (0.6mm ~ 3.2mm)

