

General Specifications

Supplement
Accessories
Indicators
Touch
Tilt
Tactiles
Slides **H**
Rotaries
Keylocks
Programmable Illuminated PB
Pushbuttons
Rockers
Toggle

Electrical Capacity (Resistive Load)

Switching Rating: 25mA @ 24V DC
Nonswitching Rating: 0.1A @ 50V DC

Other Ratings

Contact Resistance: 50 milliohms maximum
Insulation Resistance: 100 megohms minimum @ 500V DC
Dielectric Strength: 500V AC minimum for 1 minute minimum
Mechanical Life: 2,000 operations minimum
Electrical Life: 2,000 operations minimum
Total Travel: For slide actuator: .031" (0.8mm); for piano actuator: .114" (2.9mm)

Materials & Finishes

	JS01 Slide DIP	JS03 Piano DIP
Actuator:	Glass fiber reinforced polyamide	Glass fiber reinforced PBT
Cover:	Glass fiber reinforced polyamide (UL94V-0)	Glass fiber reinforced PBT (UL94V-0)
Base:	Glass fiber reinforced polyamide (UL94V-0)	Glass fiber reinforced PBT (UL94V-0)
Contacts:	Beryllium copper with gold plating	Phosphor bronze with gold plating
Terminals:	Brass with gold plating	Phosphor bronze with gold plating

Environmental Data

Operating Temp Range: -25°C through +70°C (-13°F through +158°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)

PCB Processing

Soldering: Wave Soldering Recommended. See Profile A in Supplement section.
 Manual Soldering: See Profile A in Supplement section.
 Note: Switches are packaged in OFF position and should be soldered in OFF position.
Cleaning: These devices are not process sealed. Hand clean locally using alcohol based solution.

Standards & Certifications

Flammability Standards: UL 94V-0 rated cover & base
 The JS series devices have not been tested for UL recognition and CSA certification. These switches are designed for use in a low-voltage, low-current circuit. When used as intended in a low-voltage, low-current circuit, the results do not produce hazardous energy.

Distinctive Characteristics

Slide type and piano type actuators available.

Twin sliding contact mechanism with self-cleaning action (JS01) provides smooth actuation and produces high contact reliability.

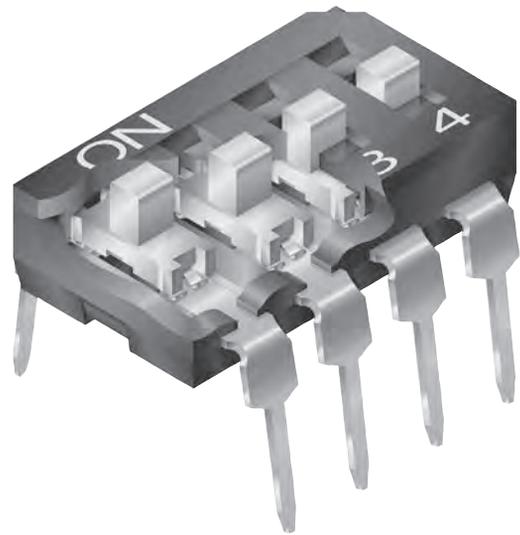
Gold plated contacts prevent oxidation and sulfide effect and provide stable contact resistance.

Use of self-extinguishing UL94V-0 certified material in cover and base provides high arc resistance and high insulation resistance.

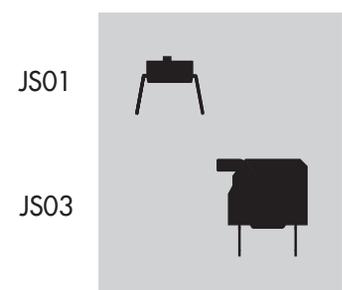
Slanted terminals ensure secure PCB mounting and prevent dislodging during wave soldering.

Terminal spacing conforms to standard .100" (2.54mm) PCB grid.

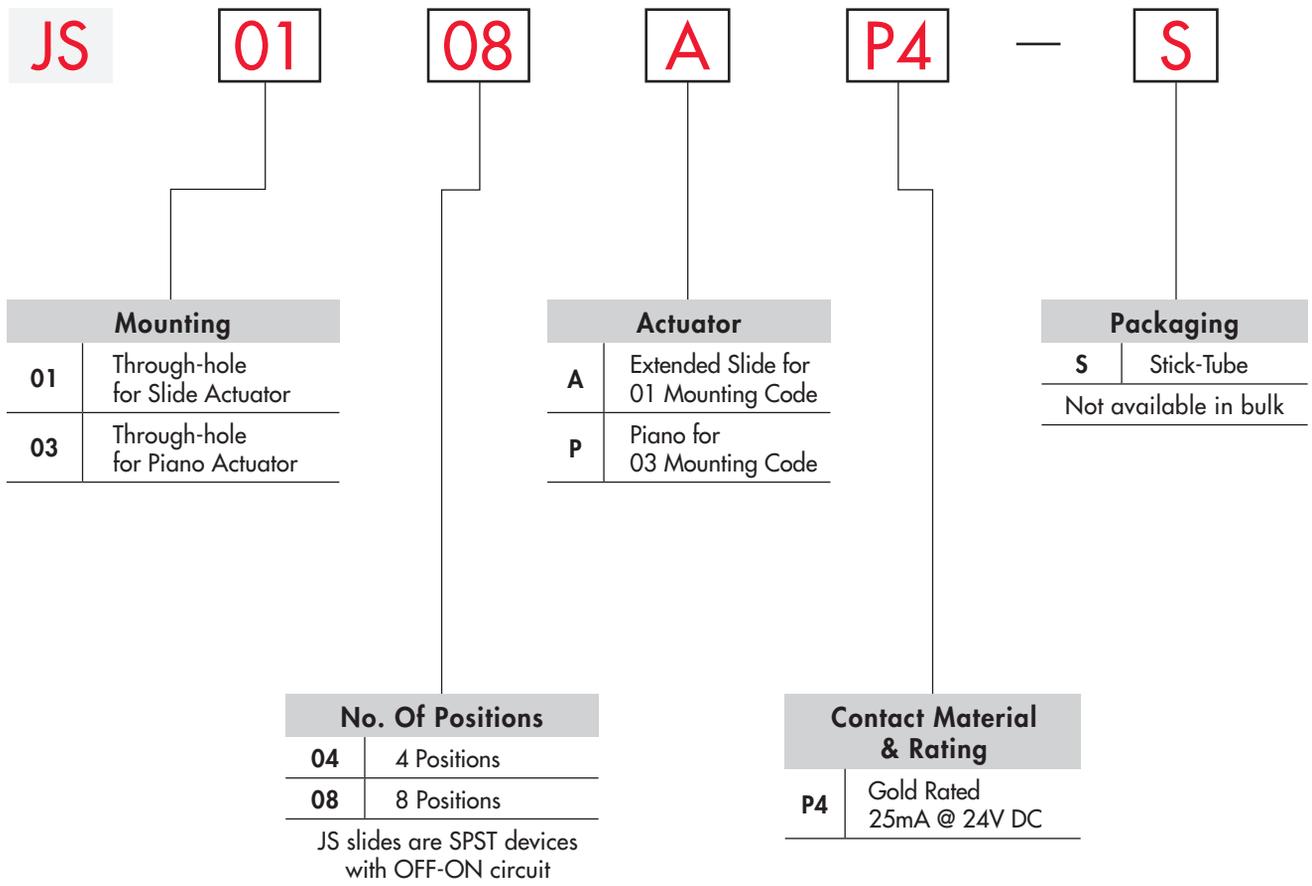
End-to-end stackable.



Actual Sizes

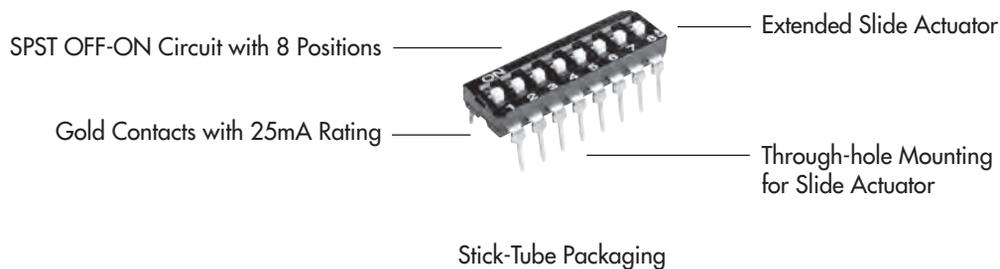


TYPICAL SWITCH ORDERING EXAMPLE



DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

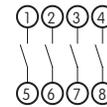
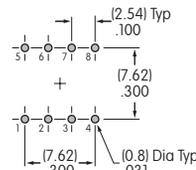
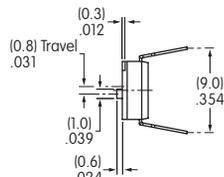
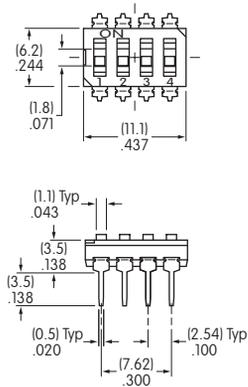
JS0108AP4-S



TYPICAL SWITCH DIMENSIONS

Slide Actuator

4 Positions



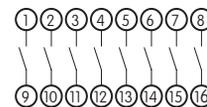
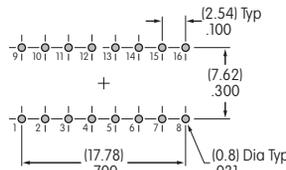
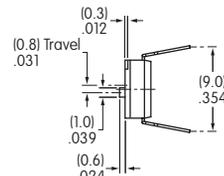
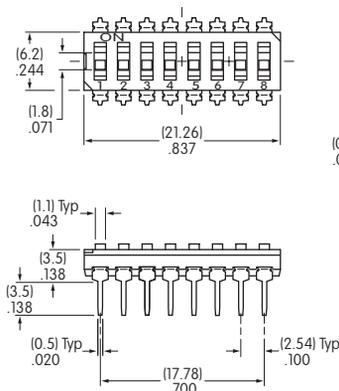
End View

Schematic

JS0104AP4

Slide Actuator

8 Positions



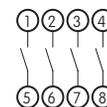
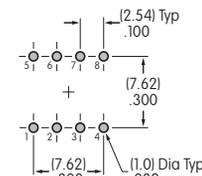
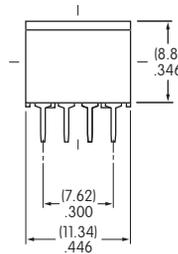
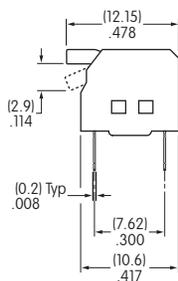
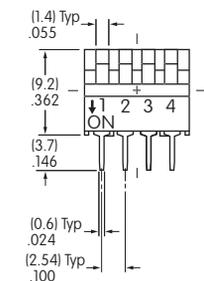
End View

Schematic

JS0108AP4

Piano Actuator

4 Positions

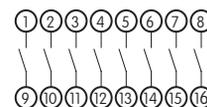
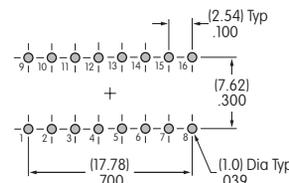
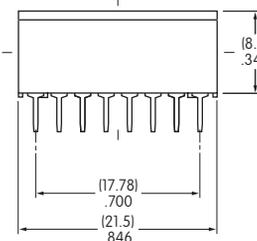
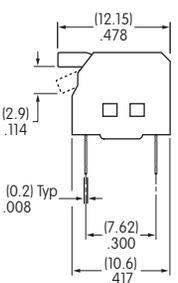
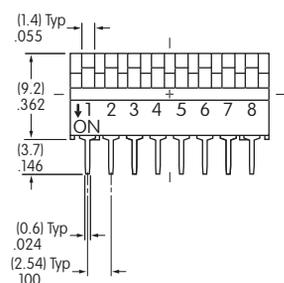


Schematic

JS0304PP4

Piano Actuator

8 Positions



Schematic

JS0308PP4

PACKAGING

S

Stick-Tube Packaging

Switches are not available in bulk and must be ordered in increments of:

Slide Actuator

JS0104AP4-S: 46 pieces per stick-tube

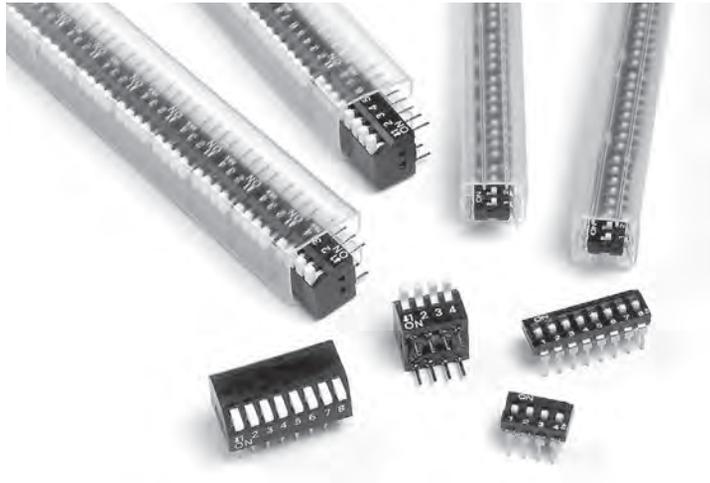
JS0108AP4-S: 24 pieces per stick-tube

Piano Actuator

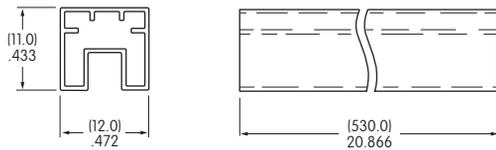
JS0304PP4-S: 44 pieces per stick-tube

JS0308PP4-S: 23 pieces per stick-tube

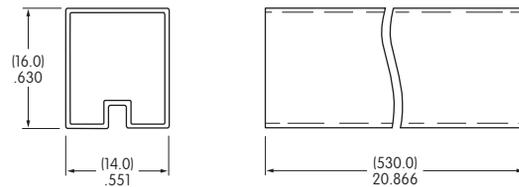
Switches are packaged in OFF position.



**Stick-Tube Dimensions for Slide Actuator
JS0104AP4-S & JS0108AP4-S**



**Stick-Tube Dimensions for Piano Actuator
JS0304PP4-S & JS0308PP4-S**



Toggles

Rockers

Pushbuttons

Illuminated PB

Programmable

Keylocks

Rotaries

Slides

Tactiles

Tilt

Touch

Indicators

Accessories

Supplement

General Specifications

Electrical Capacity (Resistive Load)

Switching Rating:	25mA @ 24V DC
Nonswitching Rating:	0.1A @ 50V DC

Other Ratings

	JS02 Extended Actuator	JS04 Flush Actuator
Contact Resistance:	50 milliohms maximum	50 milliohms maximum
Insulation Resistance:	100 megohms minimum @ 500V DC	100 megohms minimum @ 100V DC
Dielectric Strength:	500V AC minimum for 1 minute minimum	300V AC minimum for 1 minute minimum
Mechanical Life:	2,000 operations minimum	2,000 operations minimum
Electrical Life:	2,000 operations minimum	2,000 operations minimum
Total Travel:	.031" (0.8mm)	.026" (0.65mm)

Materials & Finishes

	JS02 Extended Actuator	JS04 Flush Actuator
Actuator:	Glass fiber reinforced polyamide	Glass fiber reinforced polyamide
Cover:	Glass fiber reinforced polyamide (UL94V-0)	Glass fiber reinforced polyamide (UL94V-0)
Base:	Glass fiber reinforced polyamide (UL94V-0)	Glass fiber reinforced polyamide (UL94V-0)
Contacts:	Beryllium copper with gold plating	Copper alloy with gold plating
Terminals:	Brass with gold plating	Brass with gold plating

Environmental Data

Operating Temp Range:	JS02 Extended Actuator: -20°C through +70°C (-4°F through +158°F) JS04 Flush Actuator: -30°C through +85°C (-22°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)

PCB Processing

Soldering:	Reflow Soldering Recommended. See Profile A in Supplement section. Manual Soldering: See Profile A in Supplement section. Note: Switches are packaged in OFF position and should be soldered in OFF position.
Cleaning:	These devices are not process sealed. Hand clean locally using alcohol based solution.

Standards & Certifications

Flammability Standards:	UL 94V-0 rated cover & base The JS Series slides have not been tested for UL recognition or CSA certification. These switches are designed for use in a low-voltage, low-current circuit. When used as intended in a low-voltage, low-current circuit, the results do not produce hazardous energy.
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Distinctive Characteristics

Extended and flush slide actuators available.

Twin sliding contact mechanism with self-cleaning action (JS02) provides smooth actuation and produces high contact reliability.

Gold plated contacts prevent oxidation and sulfide effect and provide stable contact resistance.

Use of self-extinguishing UL94V-0 certified material in cover and base provides high arc resistance and high insulation resistance.

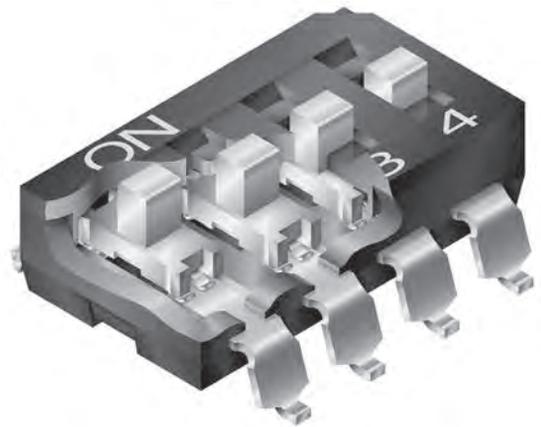
Gull-wing terminals ensure secure PCB mounting and prevent dislodging during vapor phase and infrared convection reflow soldering.

Terminal spacing conforms to standard PCB grid.
For JS02: .100" (2.54mm)
For JS04: .050" (1.27mm)

End-to-end stackable.

Packaged in tape-reel or stick-tube. Tape-reel packaging meets EIA-481-D Standard.

Coplanarity: all considered surfaces must lie between two parallel planes that are a maximum distance apart of .0059" (0.15mm). (Additional coplanarity details in Terms and Acronyms in the Supplement section.)



Actual Sizes

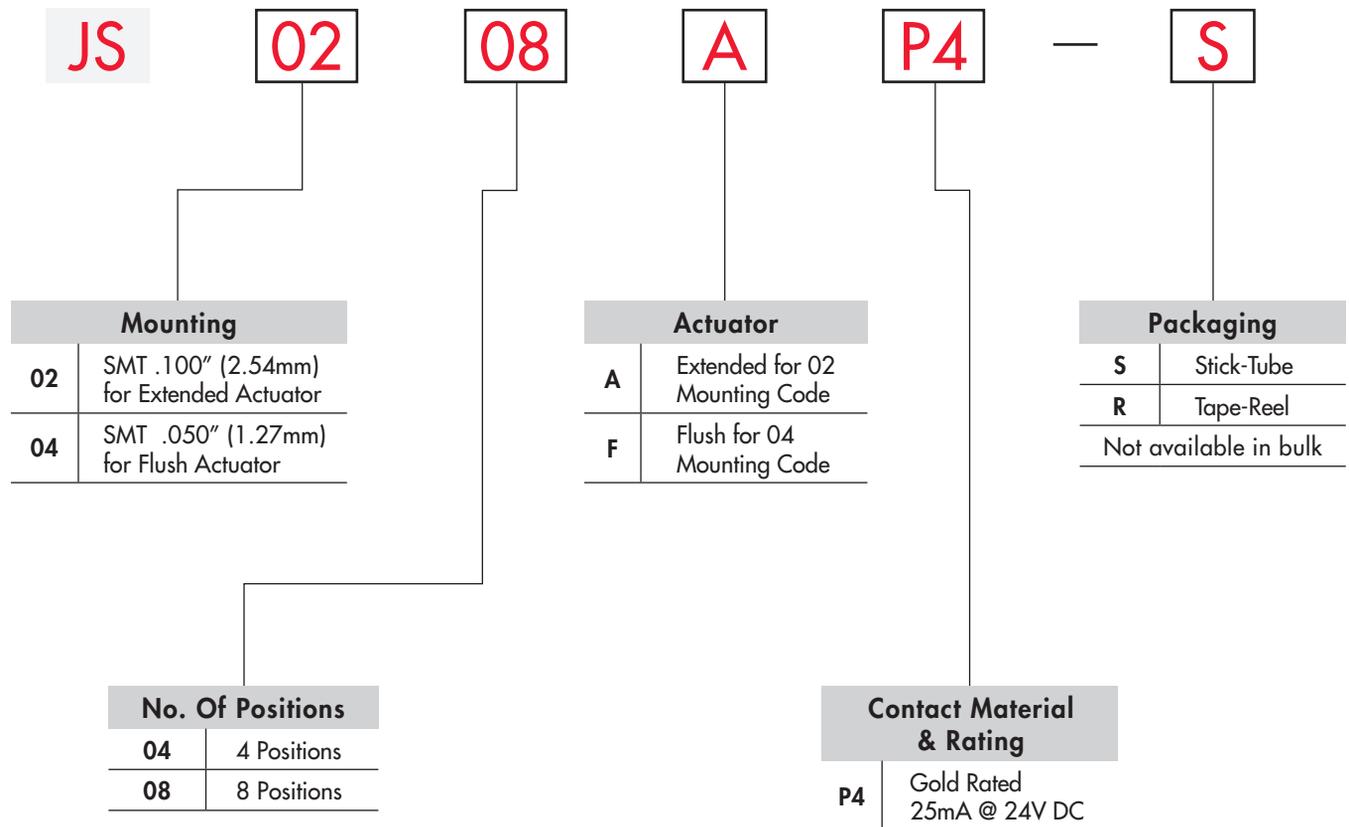
JS02



JS04

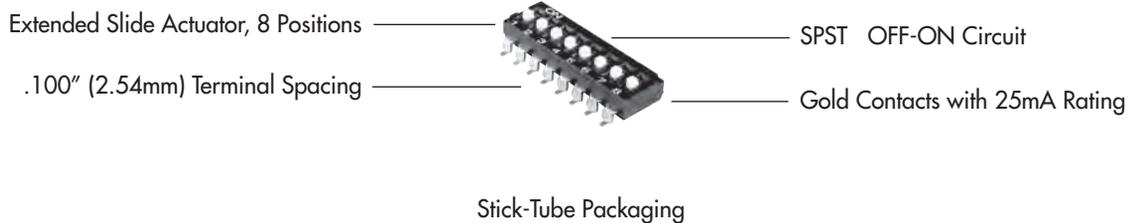


TYPICAL SWITCH ORDERING EXAMPLE



DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

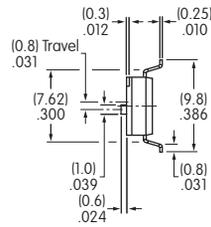
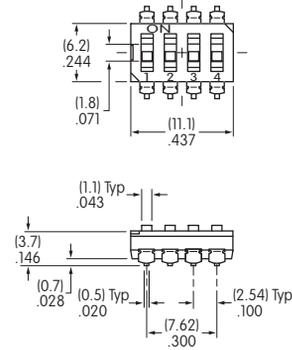
JS0208AP4-S



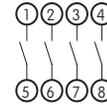
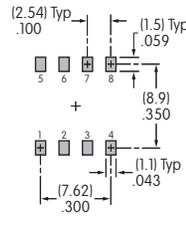
TYPICAL SWITCH DIMENSIONS

Single Pole

4 Positions • Extended Actuator



End View

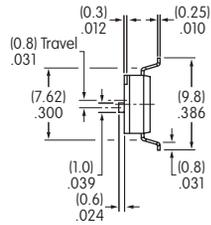
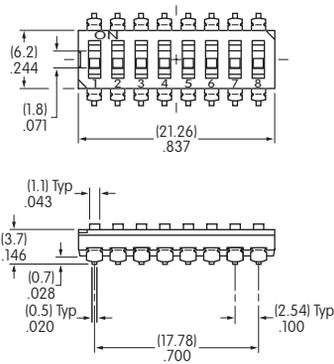


Schematic

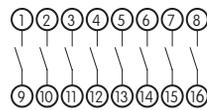
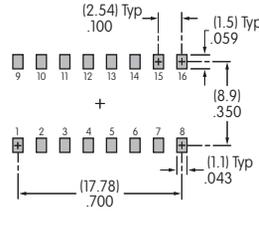
JS0204AP4

Single Pole

8 Positions • Extended Actuator



End View

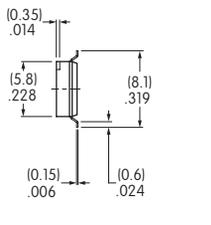
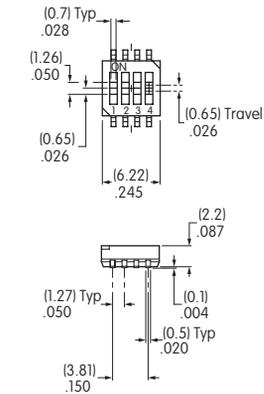


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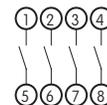
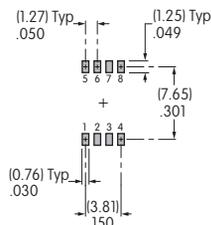
JS0208AP4

Single Pole

4 Positions • Flush Actuator



End View

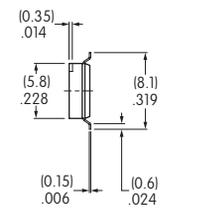
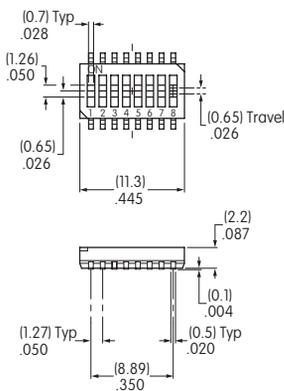


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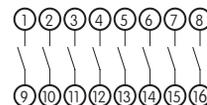
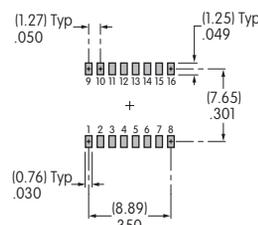
JS0404FP4

Single Pole

8 Positions • Flush Actuator



End View



Schematic

JS0408FP4

PACKAGING

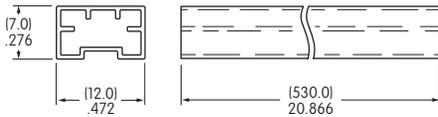
S

Stick-Tube Packaging

Switches are packaged in OFF position. Switches are not available in bulk and must be ordered in the following increments:

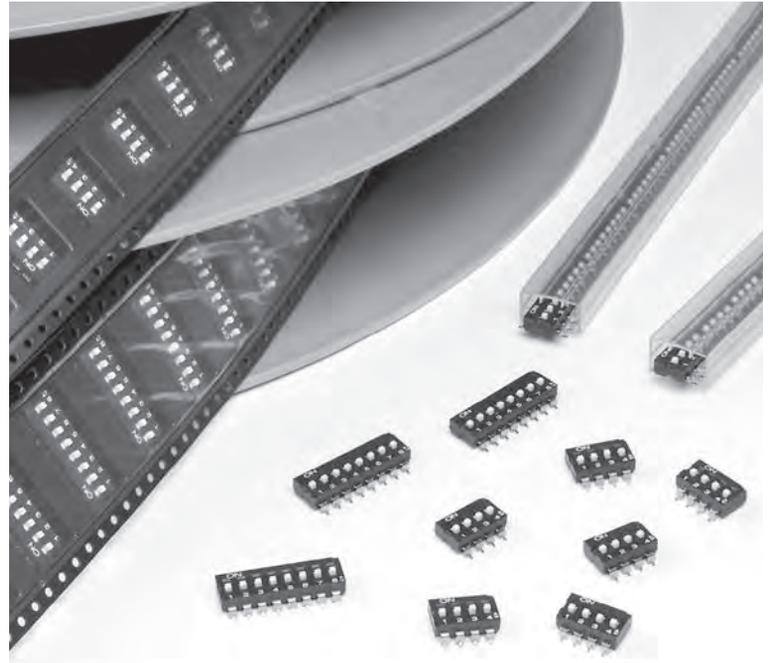
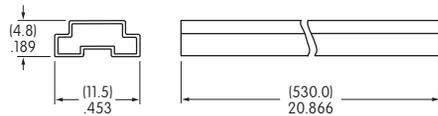
Extended Actuator

JS0204AP4-S: 46 pieces per stick-tube
 JS0208AP4-S: 24 pieces per stick-tube



Flush Actuator

JS0404FP4-S: 80 pieces per stick-tube
 JS0408FP4-S: 45 pieces per stick-tube



R

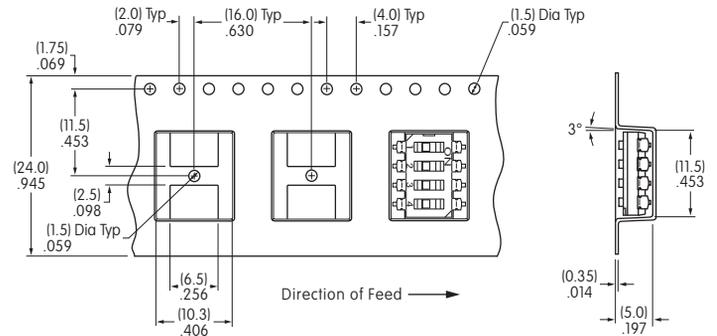
Tape-Reel Packaging for Extended Actuator

Switches are packaged in OFF position. Switches are not available in bulk and must be ordered in the following increments:

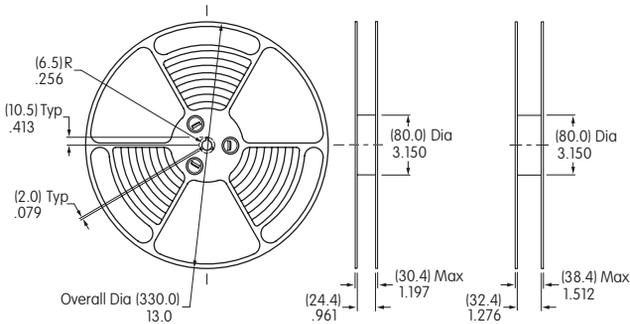
JS0204AP4-R: 500 pieces per tape-reel
 JS0208AP4-R: 500 pieces per tape-reel

Minimum Leader Length: 15.75" (400mm)
 Minimum Trailer Length: 6.3" (160mm)

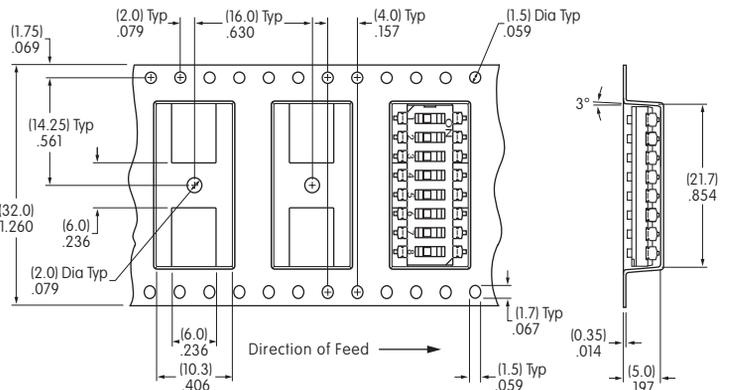
Tape-reel packaging meets EIA-481-D Standard.



Tape Dimensions for JS0204AP4-R



Reel Dimensions JS0204AP4-R JS0208AP4-R



Tape Dimensions for JS0208AP4-R

PACKAGING (CONTINUED)

R

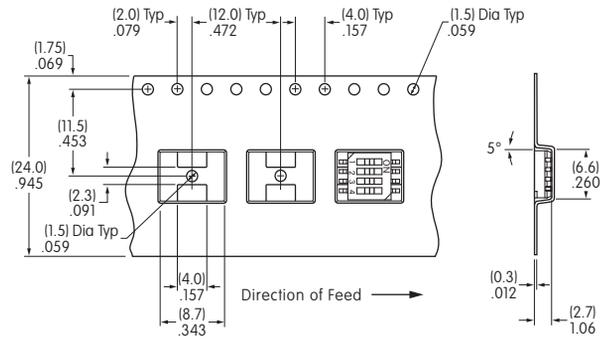
Tape-Reel Packaging for Flush Actuator

Switches are packaged in OFF position.
Switches are not available in bulk and must be ordered in the following increments:

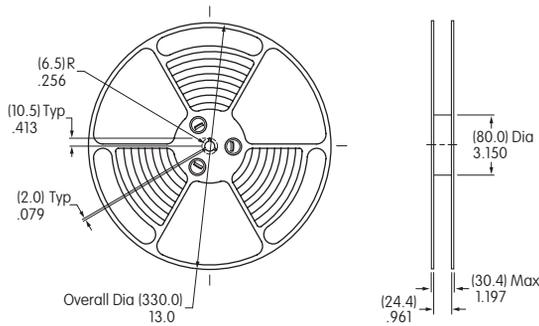
- JS0404FP4-R: 2,000 pieces per tape-reel
- JS0408FP4-R: 2,000 pieces per tape-reel

Minimum Leader Length: 15.75" (400mm)
Minimum Trailer Length: 6.3" (160mm)

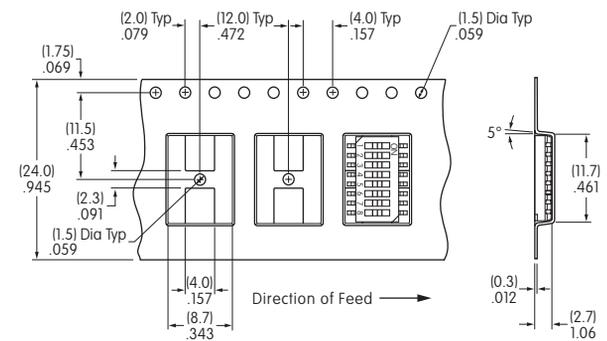
Tape-reel packaging meets EIA-481-D Standard.



Tape Dimensions for JS0404FP4-R



Reel Dimensions for JS0404FP4-R & JS0408FP4-R



Tape Dimensions for JS0408FP4-R

Toggle

Rockers

Pushbuttons

Illuminated PB

Programmable

Key locks

Rotaries

H Slides

Tactiles

Tilt

Touch

Indicators

Accessories

Supplement