General Specifications

Electrical Capacity (Resistive Load)

Low/Logic Level: 50mA @ 24V DC

Other Ratings

Contact Resistance: 50 milliohms maximum
Insulation Resistance: 500 megohms minimum @ 250V DC
Dielectric Strength: 250V AC minimum for 1 minute minimum
Mechanical Life: 500,000 operations minimum
Electrical Life: 500,000 operations minimum
Nominal Operating Force: 3.0N for flush actuator
2.0N for sculptured actuator
Total Travel: Flush Actuators .016" (0.4mm); Sculptured Actuator: .031" (0.8mm)

Materials & Finishes

Actuator: Polyamide for spot illuminated; polycarbonate for full face
Case: Glass fiber reinforced polyamide
Seal: Nitrile butadiene rubber
Base: Glass fiber reinforced polyester
Movable Contact: Phosphor bronze with silver plating
Stationary Contacts: Brass with silver plating
Terminals: Brass with silver plating

Environmental Data

Operating Temperature 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/s^2) 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.
Cleaning: Automated cleaning. See Cleaning specifications in Supplement section.
Switches should not be operated or have any pressure on the actuators during cleaning.
Full face illuminated models suitable only for bottom board spray wash to avoid contamination of the 2-layered actuator, which may compromise the aesthetics.

Standards & Certifications

The JF Series tactiles have not been tested for UL recognition or CSA certification.
These switches are designed for use in a low-voltage, low-current, logic-level circuit.
When used as intended in a logic-level circuit, the results do not produce hazardous energy.

TYPICAL SWITCH ORDERING EXAMPLE

JF | 15 | R | P | 2 | C | C

Pole & Circuit

15	SPST	OFF	(ON)

( ) = Momentary

Terminals

P	Straight PC

Actuator Types

1	Square
2	Round
3	Sculptured

LED Colors

C	Red
E	Yellow
F	Green

Illumination

R	Spot
A	Full Face (with square actuator only)

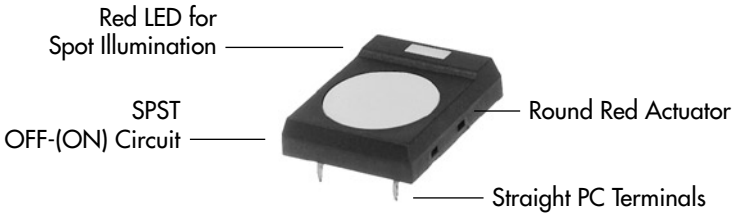
Actuator Colors

Spot Illuminated	
C	Red
D	Orange
F	Green
G	Blue
H	Gray
***Full Face Illuminated**	
C	Red
E	Yellow
F	Green

*LED color must match actuator color.

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

JF15RP2CC



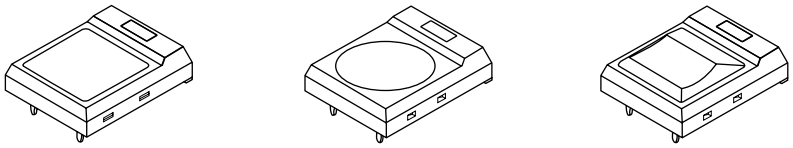
POLE & CIRCUIT

		Actuator Position ( ) = Momentary		Switch Throw & Schematic	LED Schematic	
Pole	Model	Normal	Down			
SP	JF15	OFF	(ON)	SPST 1 2 3 4	(+) (-)	Notes: Terminal numbers are shown on switch. LED circuit is isolated & requires external power source.

ILLUMINATION & ACTUATOR TYPES

R **Spot Illumination**

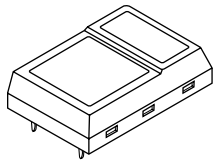
1 **Square Actuator** **2** **Round Actuator** **3** **Sculptured Actuator**



Actuator Colors Available: C, D, F, G, H
Housing is black

A **Full Face Illumination**

1 **Square Actuator**

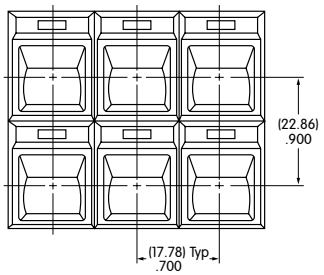


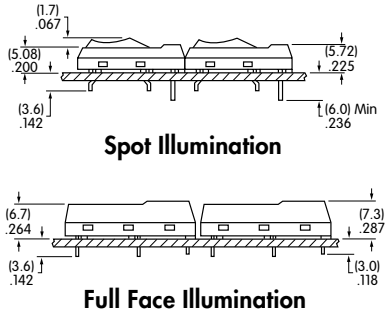
Actuator Colors Available: C, E, F
Housing is black

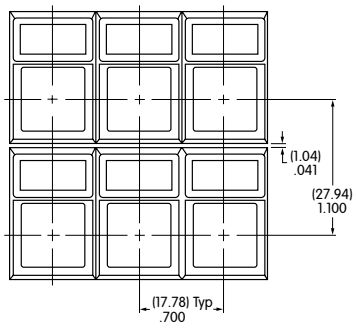
Color Codes: **C** Red **D** Orange **E** Yellow **F** Green **G** Blue **H** Gray

Flexible Panel Design

Versatile panel arrangements can be made to fit individual design needs.



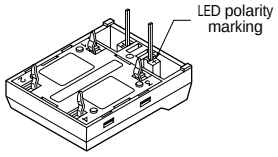




TERMINALS

P **Straight PC Terminals**

With isolated lamp circuit
Further details in Typical Switch Dimensions



LED COLORS & SPECIFICATIONS

LEDs are supplied as an integral part of the switch. The electrical specifications shown are determined at a basic temperature of 25°C.
If the source voltage exceeds the rated voltage, a ballast resistor is required.
The resistor value can be calculated by using the formula in the Supplement section.

		Spot Illumination			Full Face Illumination		
Color		Red C	Yellow E	Green F	Red C	Yellow E	Green F
Forward Peak Current	I_{FM}	40mA	40mA	40mA	30mA	30mA	30mA
Continuous Forward Current	I_F	30mA	30mA	30mA	20mA	20mA	20mA
Forward Voltage	V_F	1.7V	2.2V	2.2V	1.77V	2.1V	2.3V
Reverse Peak Voltage	V_{RM}	4V	4V	4V	4V	4V	4V
Current Reduction Rate Above 25°C	ΔI_F	0.67mA/°C	0.67mA/°C	0.67mA/°C	0.4mA/°C	0.4mA/°C	0.4mA/°C
Ambient Temperature Range		−25° ~ +70°C			−25° ~ +70°C		