

Distinctive Characteristics

World's smallest fully illuminated paddles (patent pending) for highly visible status indication; LEDs available in red, green, or amber for single color and red/green for bicolor.

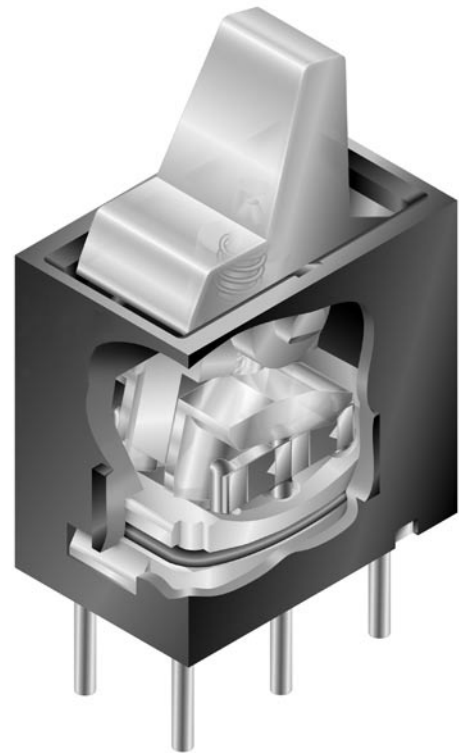
Specially designed switching mechanism provides crisp actuation feedback to positively indicate circuit transfer (patent pending).

Insert molded terminals prevent entry of flux and other contaminants.

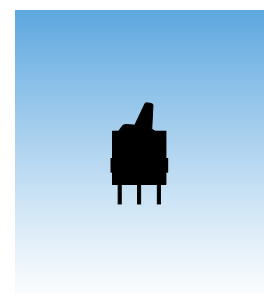
Award-winning STC contact mechanism with benefits unavailable in conventional mechanisms: smoother, positive detent actuation, increased contact stability, and unparalleled logic-level reliability. (Additional STC details in Terms & Acronyms; see Supplement section.)

.100" x .100" (2.54mm x 2.54mm) terminal spacing conforms to standard PC board grid spacing for straight and angle mounting.

Nonilluminated paddles available and shown in the Rocker section.



Actual Size



General Specifications

Electrical Capacity (Resistive Load)

Logic Level: 0.4VA maximum @ 28V AC/DC maximum
 (Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)
 Note: Find additional explanation of operating range in Supplement section.

Other Ratings

Contact Resistance: 80 milliohms maximum
Insulation Resistance: 500 megohms minimum @ 500V DC
Dielectric Strength: 500V AC minimum for 1 minute minimum
Mechanical Life: 50,000 operations minimum
Electrical Life: 50,000 operations minimum
Nominal Operating Force: 1.0N
Angle of Throw: 28°

Materials & Finishes

Actuator: Polycarbonate resin
Case: Glass fiber reinforced polyamide (UL94V-0)
Sealing Ring: Nitrile butadiene rubber
Base: Glass fiber reinforced polyamide (UL94V-0)
Movable Contact: Phosphor bronze with gold plating
Stationary Contact: Phosphor bronze with gold plating
Terminals: Phosphor bronze with gold plating

Environmental Data

Operating Temperature Range: -25°C through +55°C (-13°F through +131°F)
Humidity: 90 ~ 95% humidity for 240 hours @ 40°C (104°F)
Vibration: 10 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range & returning in 5 minutes; 3 right angled directions for 2 hours
Shock: 50G (490m/s²) acceleration (tested in 3 right angled directions, with 5 shocks in each direction)

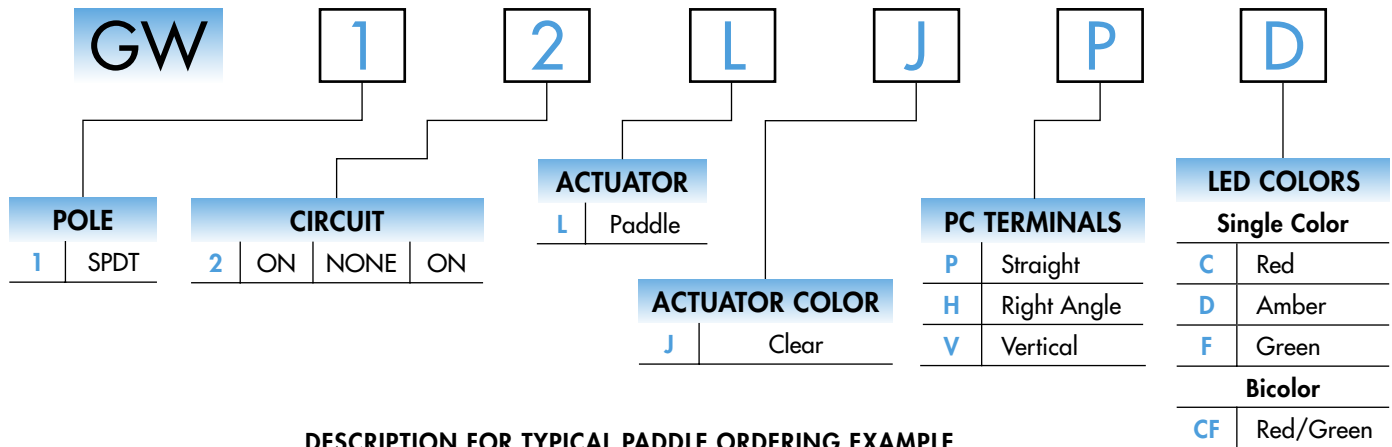
PCB Processing

Soldering: Wave Soldering recommended. See Profile A in Supplement section.
 Manual Soldering: See Profile A in Supplement section.
Cleaning: These devices are not process sealed. Hand clean locally using alcohol based solution.

Standards & Certifications

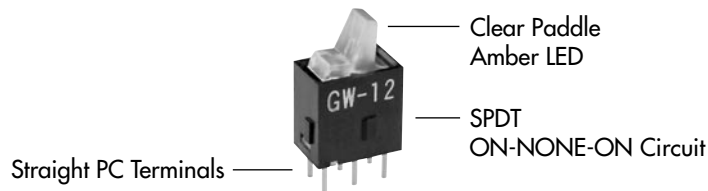
Flammability Standard: UL94V-0 case & base
UL Recognition or CSA Certification: The GW Series illuminated paddles have not been tested for UL recognition or CSA certification. These switches are designed for use in a low-voltage, low-current, logic-level circuit. When used as intended in a logic-level circuit, the results do not produce hazardous energy.

TYPICAL SWITCH ORDERING EXAMPLE



DESCRIPTION FOR TYPICAL PADDLE ORDERING EXAMPLE

GW12LJPD



POLE & CIRCUIT

| Pole | Model | Paddle Position | | | Connected Terminals | | | Throw & Schematics | | |
|------|-------|-----------------|--------|------|---------------------|--------|------|---|--|--|
| | | Up | Center | Down | Up | Center | Down | Note: Terminal numbers are not actually on the switch. LED circuit is isolated and requires an external power source. | | |
| SP | GW12 | ON | NONE | ON | 2-3 | OPEN | 2-1 | | | |

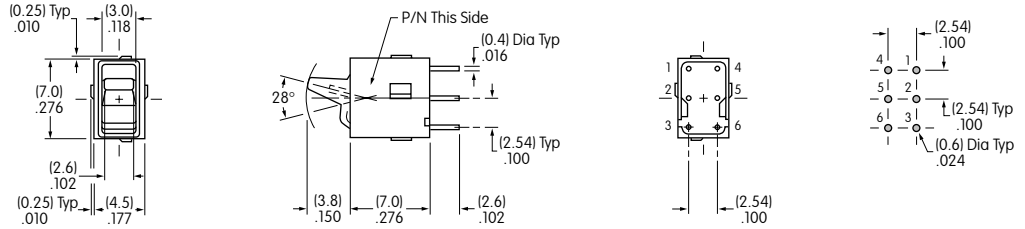
LED COLORS & SPECIFICATIONS

LEDs are an integral part of the the switch and not available separately. 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.

| | Colors | Single Color | | | Bicolor |
|-----------------------------------|--------------|---------------|-----------|-----------|-----------|
| | | C | D | F | CF |
| | | Red | Amber | Green | Red/Green |
| Forward Peak Current | I_{FM} | 25mA | 25mA | 25mA | 25mA/25mA |
| Continuous Forward Current | I_F | 20mA | 20mA | 20mA | 20mA/20mA |
| Forward Voltage | V_F | 2.0V | 2.1V | 2.1V | 2.0V/2.1V |
| Reverse Peak Voltage | V_{RM} | 4V | 4V | 4V | 4V/4V |
| Current Reduction Rate Above 25°C | ΔI_F | 0.33mA/°C | 0.33mA/°C | 0.33mA/°C | 0.33mA/°C |
| Ambient Temperature Range | | -25°C ~ +55°C | | | |

TYPICAL SWITCH DIMENSIONS

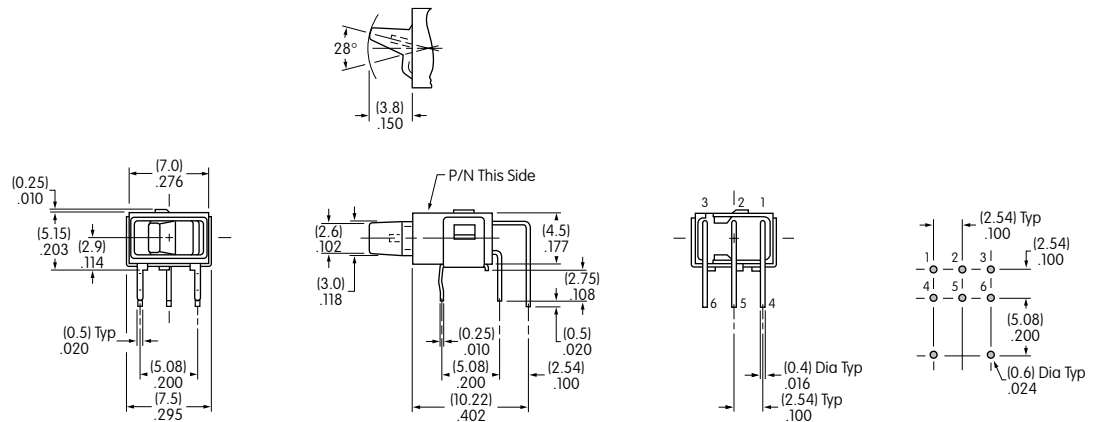
Straight PC



GW12LJC

5 & 6 are LED terminals; 4 is a support pin on single color models & an LED terminal on bicolor models.

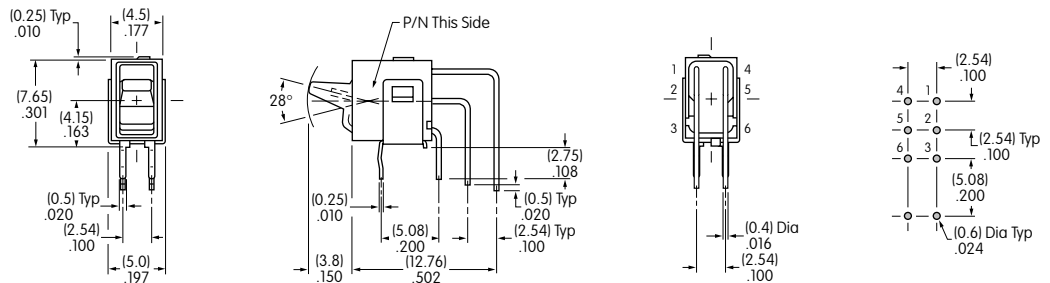
Right Angle PC



GW12LJHD

5 & 6 are LED terminals; 4 is a support pin on single color models & an LED terminal on bicolor models.

Vertical PC



GW12LVCF

5 & 6 are LED terminals; 4 is a support pin on single color models & an LED terminal on bicolor models.