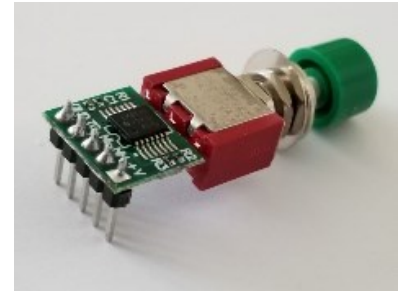# LS-6 mm Series NoBounce Pushbutton Switch
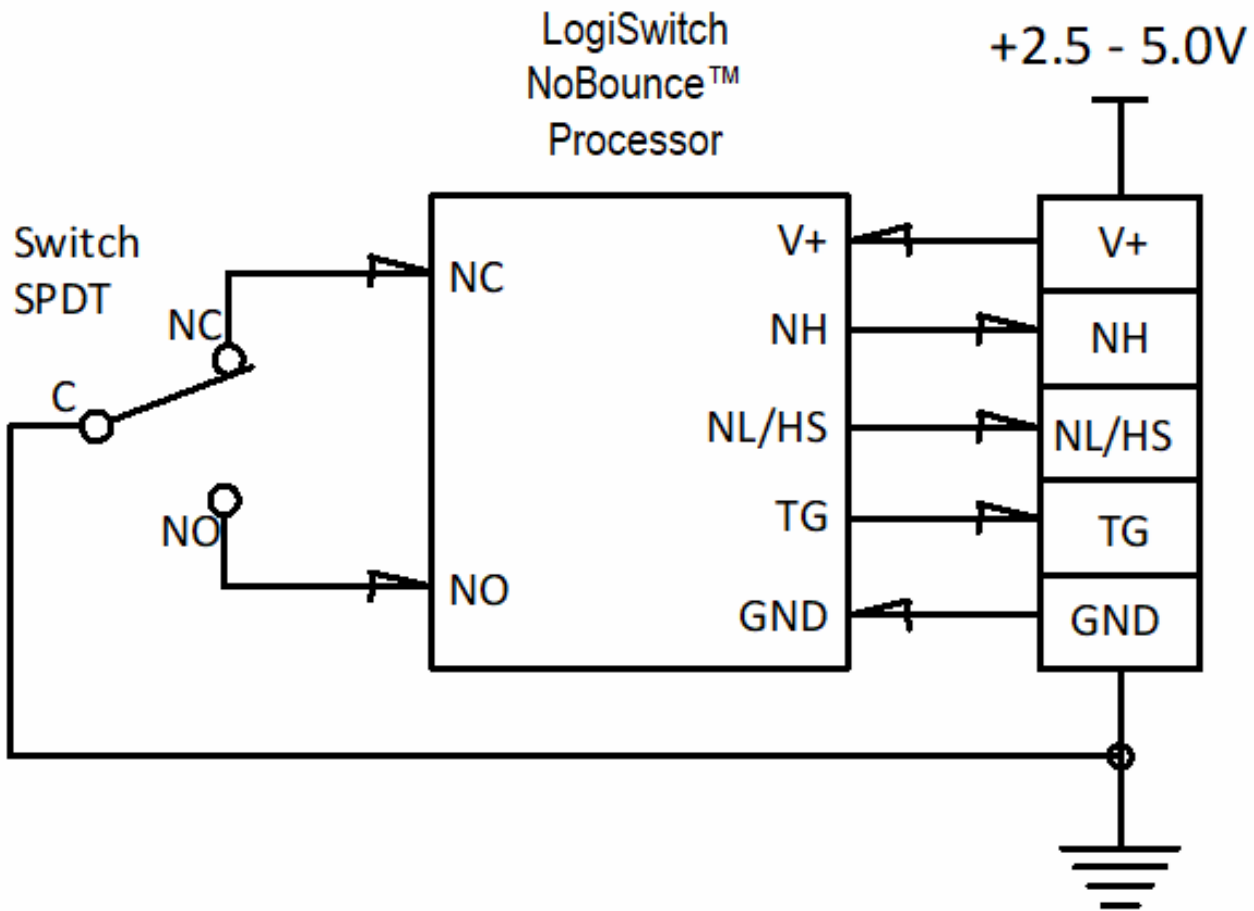

Description

Every LogiSwitch Digital Switch uses LogiSwitch's NoBounce™ technology and comes with three separate clean, debounced outputs, including two momentary selections: Normally High (low when pressed), Normally Low/Handshake (see User Guide) and a latched Toggle (push on/push off) selection.

The LS-6 mm pushbutton switch represents the simplest digital switch of the LogiSwitch line. The LS-6 mm-B comes with a black cap, the LS-6 mm-R with a red cap, and the LS-6 mm-G with a green cap.

Technical Details

- Drill hole diameter: 6 mm (1 5/64 inch)
- Recommended Voltage 2.7 VDC – 5 VDC
- Absolute maximum voltage 5.5 VDC
- Digital contacts: NH (normally high, HS (normally low) and TG (toggle)
- Temperature: -20 °C to +55 °C
- Mechanical life: > 500,000 activations
- Panel thickness: up to 5/32 inch (4 mm)
- Toggle output is high on power-up
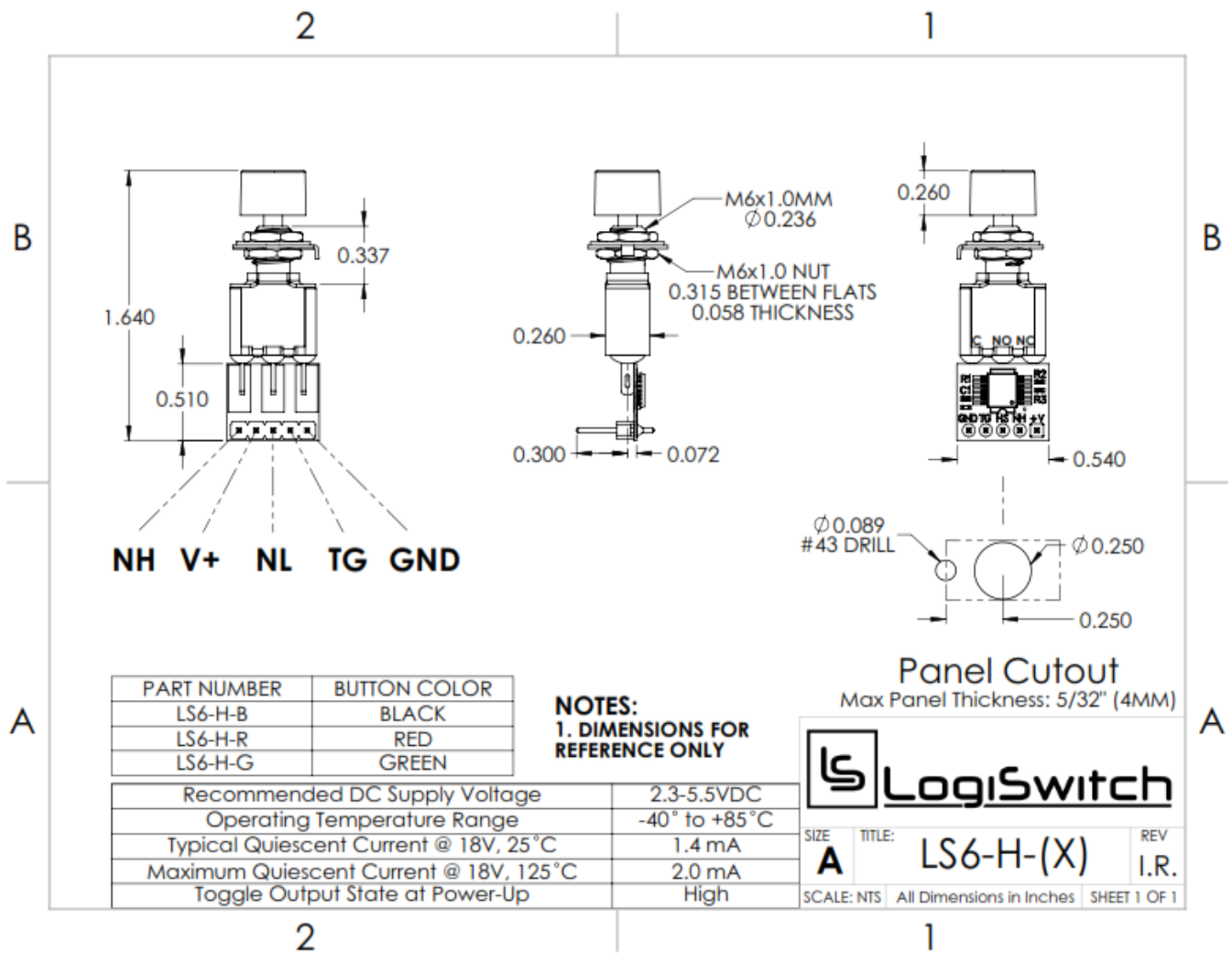
Schematic

LS-6 mm NoBounce Pushbutton Switch Internal Schematic

Output Pin Definitions

As you can see the 5-pin header contains Power and Ground pins plus three outputs: TG/LED, NL HS, and NH. The function of these pins is given in the table below.

Pin	Function
NH	This debounced output is high when the switch is idle and goes low when the switch is activated (pressed). This is a totem pole output that provides up to 25 ma sourcing or sinking.
NL HS	This debounced output is low when the switch is not pressed and goes high when it is activated. It is a wired-OR line with a weak pull-up resistor internal to the processor. Low level outputs can sink up to 25ma. The NL/HS I/O may be used by the user's program to terminate the switch service cycle by issuing a 5 ms low pulse, called a handshake. The NL/HS line is configured as an open collector wired-OR line so both the LogiSwitch device and the host computer can drive the line low simultaneously to accomplish the handshake as needed.
TG	The TG output powers up in the high state and changes state each time the switch is activated. It may be used in applications where a push on-push off type switch would be used.

Mechanical Drawing

PART NUMBER	BUTTON COLOR
LS6-H-B	BLACK
LS6-H-R	RED
LS6-H-G	GREEN

NOTES:
1. DIMENSIONS FOR REFERENCE ONLY

Recommended DC Supply Voltage	2.3-5.5VDC
Operating Temperature Range	-40° to +85°C
Typical Quiescent Current @ 18V, 25°C	1.4 mA
Maximum Quiescent Current @ 18V, 125°C	2.0 mA
Toggle Output State at Power-Up	High

Panel Cutout
Max Panel Thickness: 5/32" (4MM)

SIZE	TITLE:	REV
A	LS6-H-(X)	I.R.

SCALE: NTS   All Dimensions in Inches   SHEET 1 OF 1

info@logiswitch.com   www.logiswitch.com

B

1.700

0.337

0.510

V+   NH   NL   TG   GND

M6x1.0MM
Ø0.236

M6x1.0 NUT
0.315 BETWEEN FLATS
0.058 THICKNESS

0.260

0.297 — 0.072

0.260

C NO NC

0.540

Ø0.089
#43 DRILL

Ø0.250

0.250

Panel Cutout
Max Panel Thickness: 5/32" (4MM)

PART NUMBER	BUTTON COLOR
LS6-S-B	BLACK
LS6-S-R	RED
LS6-S-G	GREEN

NOTES:
1. DIMENSIONS FOR
REFERENCE ONLY

Recommended DC Supply Voltage	2.3-5.5VDC
Operating Temperature Range	-40° to +85°C
Typical Quiescent Current @ 18V, 25°C	1.4 mA
Maximum Quiescent Current @ 18V, 125°C	2.0 mA
Toggle Output State at Power-Up	High

LogiSwitch

SIZE	TITLE:		REV
A	LS6-S-(X)		I.R.
SCALE: NTS	All Dimensions in Inches	SHEET 1 OF 1	