

Switch & Sense 8/8

Specifications



**MEASUREMENT
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Specifications

Typical for 25 °C unless otherwise specified.

Specifications in *italic text* are guaranteed by design.

USB compliance

Device type	<i>USB version 1.1 low speed (1.5 Mbs) device</i>
Device compatibility	USB 1.1, USB 2.0

Power consumption

5 V USB Bus power	20 mA typical , 25 mA max.	
External 9V unregulated supply (Power supply included)	All relays off	30 mA typical, 40 mA max.
	All relays on	500 mA typical, 625 mA max.
Power supply voltage range	7.5V – 20V	

Output specification

Number	8
Contact configuration	8 FORM C (SPDT) NO, NC and Common available at connector
Contact rating	<i>6 amperes (A) @ 120 volts AC (VAC) or 28 volts DC (VDC) resistive</i>
Contact resistance	100 milliohms (mΩ) max
Operate time	<i>10 milliseconds(ms) max</i>
Release time	<i>5 ms max</i>
Vibration	<i>10 to 55 hertz (Hz) (Dual amplitude 1.5 millimeters (mm))</i>
Shock	<i>10 G (11 ms)</i>
Dielectric isolation	<i>500 V (1 minute)</i>
Life expectancy	<i>10 million mechanical operations, min</i>
Power on RESET state	Not energized. NC in contact to Common.

Isolated inputs

Number	8	
Isolation	<i>500 volts (V)</i>	
Resistance	1.6K ohms (Ω) min.	
Voltage range	DC	Input high: +5.0 VDC min or –5.0 VDC min
		Input low: +1.5 VDC max. or –1.5VDC max.
		Input range: ! 30 VDC max
	AC (with filter)	Input high: 3.0 V _{rms} min (50-1000 Hz) Input low: 1.5 V _{rms} max (50-1000 Hz)
Response	w/o filter	20 μs
	w/ filter	5 ms
Filters	Time constant	5 ms (200 Hz)
	Filter control	Software programmable at each input.
	Power-up /reset	Filters off

USB connection

Captive pigtail cable	<i>USB Type A connector</i>
Length	<i>2 meters</i>

Environmental

Operating temperature range	0 to 70 °C
Storage temperature range	-40 to 100 °C
Humidity	0 to 95% non-condensing

Mechanical

Card dimensions	165 mm long x 150 mm wide x 20 mm high, 6.5 in. long x 5.9 in. wide x 0.8 in. high
Case dimensions	185 mm long x 160 mm wide x 46 mm high, 7.3 in. long x 6.3 in. wide x 1.8 in. high
Case material	20 gage steel
Weight of complete unit	2.1 lbs.
Weight of card alone	0.6 lbs.

Screw terminal

Wire sizes	12-22 AWG
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Miscellaneous

Case strain relief rating	20 lbs.
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Screw terminal pinouts

Pin	Signal Name	Pin	Signal Name
IP0A	Input 0 terminal A	IP4A	Input 4 terminal A
IP0B	Input 0 terminal B	IP4B	Input 4 terminal B
IP1A	Input 1 terminal A	IP5A	Input 5 terminal A
IP1B	Input 1 terminal B	IP5B	Input 5 terminal B
IP2A	Input 2 terminal A	IP6A	Input 6 terminal A
IP2B	Input 2 terminal B	IP6B	Input 6 terminal B
IP3A	Input 3 terminal A	IP7A	Input 7 terminal A
IP3B	Input 3 terminal B	IP7B	Input 7 terminal B
0-NO	Relay 0 Normally Open contact	4-NO	Relay 4 Normally Open contact
0-C	Relay 0 Common contact	4-C	Relay 4 Common contact
0-NC	Relay 0 Normally Closed contact	4-NC	Relay 4 Normally Closed contact
1-NO	Relay 1 Normally Open contact	5-NO	Relay 5 Normally Open contact
1-C	Relay 1 Common contact	5-C	Relay 5 Common contact
1-NC	Relay 1 Normally Closed contact	5-NC	Relay 5 Normally Closed contact
2-NO	Relay 2 Normally Open contact	6-NO	Relay 6 Normally Open contact
2-C	Relay 2 Common contact	6-C	Relay 6 Common contact
2-NC	Relay 2 Normally Closed contact	6-NC	Relay 6 Normally Closed contact
3-NO	Relay 3 Normally Open contact	7-NO	Relay 7 Normally Open contact
3-C	Relay 3 Common contact	7-C	Relay 7 Common contact
3-NC	Relay 3 Normally Closed contact	7-NC	Relay 7 Normally Closed contact

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