KW11-3Z 2-Pin Lever Micro Switch

Normally open (SPST-NO), straight steel lever

Two-terminal micro limit switch for endstop, lid and position inputs on 3.3 V and 5 V boards. One contact closes while the lever is pressed. Rated 5 A at 125 / 250 VAC on the moulding.

1 Device configuration

ITEM	CONFIGURATION
Click IT SKU CLICK-IT-336618	
Contact form	1 normally open contact (SPST-NO), momentary: closed only while pressed. No NC terminal
Actuator	Straight flat steel lever, about 16 mm, over a red plunger
Terminals	2 flat solder tabs with wire holes; take female spade connectors or solder
Mounting	2 through holes, Ø2.35, 9.5 mm centres, for M2 screws
Supplied	1 switch per unit. No screws, wires or connectors
Related	SC7301 3-pin lever (adds NC); KW11-3Z roller lever and no-lever, both 3-pin

2 Absolute maximum ratings

Stress limits, not working conditions. From the rating moulded on the front face.

PARAMETER	VALUE	CONDITION
Contact current and voltage, AC	5 A at 125 VAC; 5 A at 250 VAC	Resistive AC load, marked "5A 125 250V~"
Ambient temperature	85 °C maximum	T85 marking
Contact gap	Micro-gap	µ marking. Not an isolating switch

3 Recommended operating conditions

For signal use on a microcontroller or printer-board input, as in sections 7 and 8.

PARAMETER	MIN	TYP	MAX	UNIT	CONDITION
Pull-up supply VDD		3.3 or 5	5	V	The board's logic supply
Pull-up resistor R1, external	4.7	10	47	kΩ	Or the board's built-in pull-up on short wires
Contact current, signal use		0.33 / 0.50	1.06	mA	VDD / R1: 3.3 V or 5 V with 10 kΩ; max 5 V with 4.7 kΩ
Ambient temperature			85	°C	T85 marking

4 Characteristics

PARAMETER	VALUE	CONDITION
Contact state, lever released	COM to NO open	No continuity between the tabs
Contact state, lever pressed	COM to NO closed	Closes at the click, opens again on release
Body size (L x H x W)	19.8 × 10.2 × 6.4 mm	Pivot end 10.2 tall; top steps to ~9.5 beyond ~9.8
Mounting holes	2 x Ø2.35, 9.5 ±0.1 mm centres	Through; suit M2 screws. Positions in section 6
Lever at rest	Tip ~16.6 from the pivot end, ~2 above the body	Rests on the plunger at ~6.9; presses down to the body top
Terminals	~2.8 mm wide blades, ~4 mm below the body	Square to the marked faces, wire hole in each
Housing	Black moulded plastic, red plunger	No water or dust protection

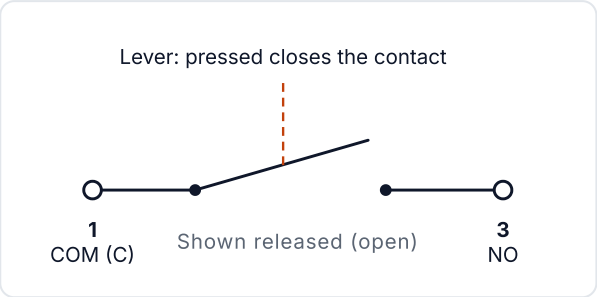
Values marked ~ are scaled from Click IT photos of the stock; the others are from the outline drawing for this variant.

5 Pin configuration and equivalent circuit

Front view, numbered face towards you, lever pivot on the left, tabs at the bottom: order 1 - 3 - 2, with tab 1 at the pivot end. The back face carries the letters, in the same tabs: C over tab 1, NO over tab 3.

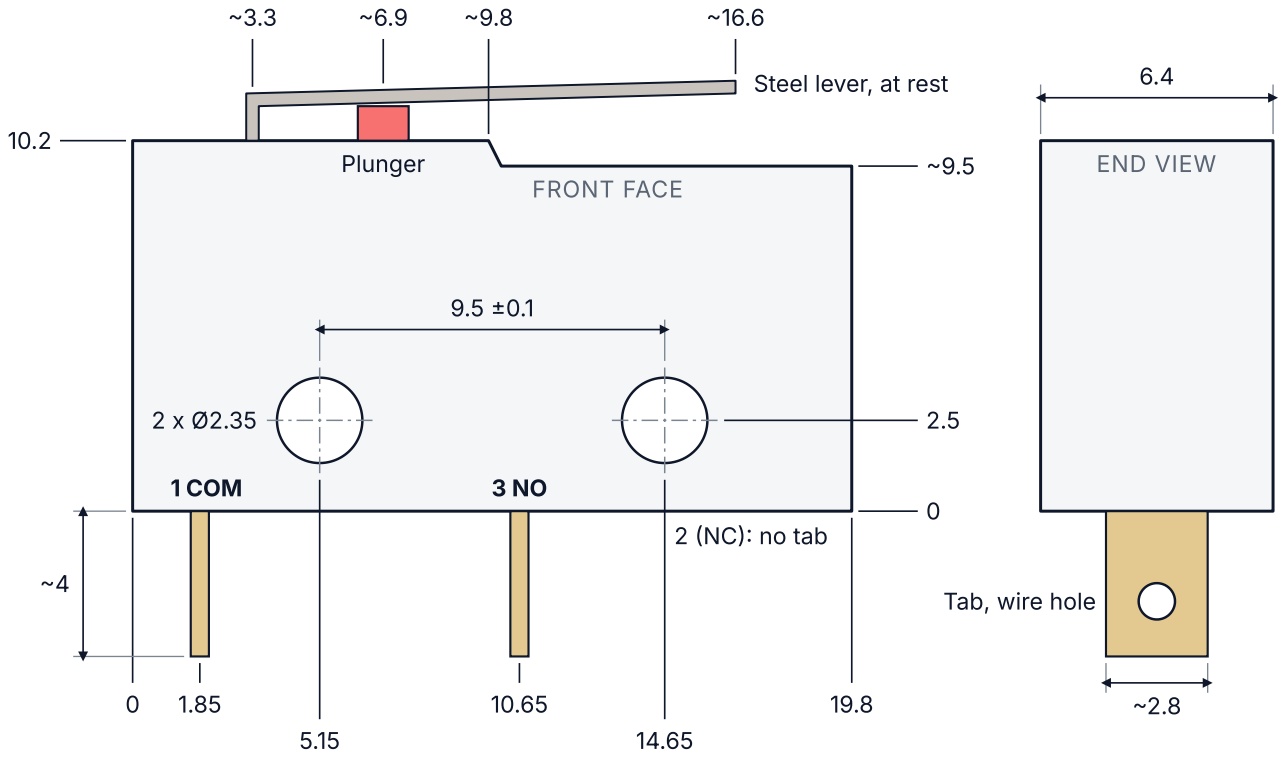
TERMINAL	FRONT MARK	BACK MARK	RELEASED	PRESSED
1, COM	1	C	Open to NO	Closed to NO
3, NO	3	NO	Open to COM	Closed to COM
2, NC	2	NC	No terminal fitted at this position	

Equivalent circuit



One contact, no other parts inside. The NC position has no terminal on this variant.

6 Mechanical drawing and hole pattern

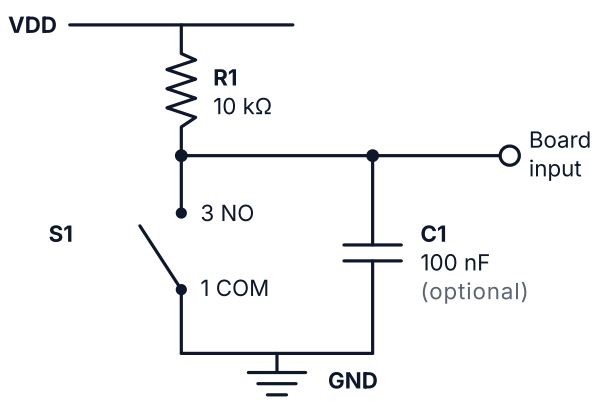


FRONT VIEW, numbered face towards you, lever pivot on the left, tabs down; and END VIEW from the pivot end, lever omitted. Not to scale. Ordinates in mm from the pivot-end face (X) and the terminal edge (Y). The hole pattern is the same seen from the back.

FEATURE	X FROM PIVOT END	Y FROM TERMINAL EDGE	DETAIL
Mounting hole H1	5.15	2.5	Ø2.35 through, suits M2
Mounting hole H2	14.65	2.5	Ø2.35 through, 9.5 ±0.1 from H1
Tab 1 (COM) centre	1.85	~4 below	~2.8 blade, square to the marked faces
Tab 3 (NO) centre	10.65	~4 below	8.8 from tab 1
Lever envelope at rest	~3.1 to ~16.6	up to ~11.85	Keep this space free; it moves down to the body top when pressed

For a printed bracket or PCB, print this hole and tab pattern at 1:1 and check it against a switch before committing to a design.

7 Application circuit



S1 is this switch. VDD = the board's logic supply, 3.3 V or 5 V. The input reads HIGH while released and LOW while pressed.

R1 holds the input high until the switch pulls it to GND. C1 is optional: it smooths contact bounce and noise picked up on long wires, so firmware sees one clean edge.

Working

τ = R1 x C1 = 10 kΩ x 100 nF = 1.0 ms

I = VDD / R1 = 5 V / 10 kΩ = 0.50 mA; 3.3 V / 10 kΩ = 0.33 mA

With τ near 1 ms, a 20 ms software debounce still ignores bounce, and the input settles well inside one debounce window.

Choosing R1 and C1 by use

USE	R1	C1	TIME CONSTANT	I AT 5 V	I AT 3.3 V
Bench test, wires under 30 cm	Built-in pull-up	none			
Endstop or lid switch, up to 2 m	10 kΩ	none		0.50 mA	0.33 mA
Same, near motors or noisy wiring	10 kΩ	100 nF	1.0 ms	0.50 mA	0.33 mA
Long run, twisted pair	4.7 kΩ	100 nF	0.47 ms	1.06 mA	0.70 mA

Worked cell, long run: 4.7 kΩ x 100 nF = 0.47 ms; 5 V / 4.7 kΩ = 1.06 mA.

8 Interface examples

BOARD	C (TAB 1) TO	NO (TAB 3) TO	PULL-UP	PRESSED READS
Arduino Nano or Uno, 5 V	GND	D2	pinMode(2, INPUT_PULLUP), or R1 10 kΩ to 5 V	LOW
ESP32, 3.3 V	GND	GPIO 4 (any input)	INPUT_PULLUP. GPIO 34 to 39 have no internal pull-up: fit R1 to 3.3 V	LOW
Raspberry Pi Pico, 3.3 V	GND	GP15 (any GPIO)	Pin(15, Pin.IN, Pin.PULL_UP)	0 (LOW)
3D printer endstop plug	GND (G or -)	S (signal)	Board's own. Leave V+ unconnected	Released = triggered; invert in firmware

Never pull NO up to 5 V on a 3.3 V board. Printer firmware usually expects a normally closed endstop, so invert this one (in Klipper, add ! to the endstop pin), or use the SC7301 3-pin switch on its NC tab.

9 Fitting, soldering and checking a unit

Fitting

1. **Mount** with two M2 screws, snug only, so the plastic body is not crushed.
2. **Place it** so the moving part presses the lever near its tip at the end of travel, with a little over-travel past the click.
3. **Stop the part separately.** The switch only signals; let a mechanical stop take the force so the lever never bottoms hard.
4. **Connect:** push female spade connectors onto the tabs, or hook each wire through its tab hole and solder for 2 to 3 s with a hot iron, so the body does not soften.

Mains wiring: fit the switch inside an enclosure and have a licensed electrician do the work.

Checking a unit

1. **Disconnect all power** and set a meter to continuity (beep).
2. **Probe tabs C and NO** with the lever released: no beep.
3. **Press the lever** until it clicks: the meter beeps, and stops when you let go.

A unit that beeps when released, or never beeps, is faulty; contact Click IT for a replacement.

10 Revision history

REV	DATE	CHANGE
2.0	2026-11-01	New layout. Lever at rest (tip ~2 above the body, ~16.6 from the pivot end) and body step corrected from stock photos. Ratings, operating conditions, equivalent and application circuits, pull-up selection, interface examples and a unit check added.
1.1	2026-10-28	Tab orientation, lever pivot and plunger position corrected.
1.0	2026-10-18	First issue.