

The ANY-maze Touch switch interface



Overview

The ANY-maze Touch switch interface detects when an animal touches something conductive. For example, the touch switch can be used to detect when the animal licks at a bottle spout, when the animal's paw touches a metal plate on the wall of a cage, or when the animal slips from a grid and its paw touches a metal floor. In all cases, the animal needs to be in contact with something else that's conductive – usually the floor of the cage – so that the animal completes a circuit between the two things when it makes a touch.

Ports

- Four independent ports.
- All ports are available on BNC connectors for easy connection to devices, such as the [ANY-maze Parallel rod floor test](#).
- All ports are also repeated on a pluggable screw terminal block connector, for easy connection to bare wires.

Touch detection

- User adjustable switching threshold.
- Input signals can be displayed as analogue values, making it easy to choose a suitable switching threshold for your apparatus.

Uses

- Lickometer.
- Paw slip.
- Touch plate - for example, as a response device in an operant chamber.

Technical specification

Connection to PC	
Connection type	USB (USB1.1, USB2.0, USB3.0 compatible)
Data isolation	2500 V _{RMS}
Power	Powered from USB
Maximum current drawn from USB	250mA
Connection indication	LED: Red=Powered; Green=Communicating (note 1)
USB power isolation	1500 V _{DC}
Ports	
Number of channels	4
Connector	BNC and pluggable screw terminal block (note 2)
Signal	
Nominal signal voltage	12V
Maximum signal current	0.8μA
Analogue resolution	10-bit
Read frequency	180Hz
Default threshold	5V
Threshold adjustment range	0.5V – 8.0V in 0.5V steps

Notes

1. Indicator LED can be suppressed, which is useful for tests performed in darkness and/or to avoid providing potential cues to the animals.
2. The device has 4 channels. Each channel is available on two connectors - a BNC connector and pluggable screw terminal block; electronically, the connectors are identical.