

Switch Endurance Test Machine

CAPABILITY SHEET · THE LOAD SETS THE WEAR · REAL LAMP LOADS ON EVERY STATION · ENGINEERED TO ORDER

THE ONE IDEA

PRINCIPLE	The load sets the wear.
WHY IT MATTERS	The mechanism of a switch is tested by pressing it, but its contacts are tested by what they carry: a filament lamp, a ballast and an LED driver each load the same contacts in a different way.

THE MACHINE

STATIONS	Test stations that hold a wall switch as it is fitted and operate it with a pneumatic cylinder and a rounded finger through its full travel at a set rate.
LOAD RACKS	Racks of real filament lamps, magnetic and electronic ballasts with fluorescent tubes, and LED drivers with lamps, with a resistive bank as a reference.
MONITOR	A fast current monitor on every station that sees the spike at closing and checks every operation for make and break.
CONTROL	A counter and controller that hold the rate and the share of each cycle, count for each station and stop a station at its first failure.

THE METHOD

ORDER	Specify, rig, load, run, watch and prove. Measuring the spike before the run, and checking every operation instead of reading the count at the end, are what a quick order skips.
LIMITS	Loads, rates, counts and tolerances come from the method the customer names and from the switch, and are not printed here.

CONFIGURATIONS

MULTI-STATION MACHINE	Several stations side by side, one for each lamp type, run together under one controller.
SINGLE-STATION BENCH	One station and one load rack, for development work or a laboratory that tests one type of switch.
LOAD RACK AND CONTROLLER	Load racks, a supply, a current monitor and a controller for the operating mechanisms a laboratory already owns.

STANDARDS & SCOPE

STANDARDS	Public references: IEC 60669-1 for manually operated general-purpose switches, and IS 3854 for switches for domestic and similar purposes.
SCOPE BOUNDARY	It is the switch endurance test machine: not a circuit-breaker and relay test bench, not an accelerated life test bench and not a high-voltage test bench.
STATUS	Neometrix engineers switch endurance test machines to order, and no delivered switch endurance test machine is claimed.

DEFENCE PROGRAMMES DESK

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