



KLIXON® | AT / KX Series

Precision Switches

-20°F to 350°F, SPST

AT FEATURES

- Meet the demands of low-level current switching applications
- Various mechanical and electrical configurations available as standard or custom configurations
- Actuation plungers of various shapes and materials available
- Multi-pole switch package options
- Wiring can be supplied as flying leads or via a variety of standard connectors
- Mounting via threaded bushings or side-plate design

KX FEATURES

- Hermetic seal provides exceptional operational freedom from environmental conditions
- Compactly designed to fit small, narrow spaces
- Available with either screw or solder lug type terminals
- Snap-acting sine switch provides exceptional resistance to shock and vibration
- Embedded leads are available
- Lead lengths can be supplied to customer requirements

INTRODUCTION

Due to its broad performance envelope, small size, and ability to be easily incorporated into a wide variety of packages, this is our most popular family of precision hermetic switches. Klixon® AT series switches are available as basic switches, basic switches with mounting brackets and actuators, or as switch packages. Packages are formed by configuring various electrical terminations, actuator means and physical construction around one or more basic switches. Since these sources are still far from exhaustive, please call if you need something you don't see. (There are too many designs to include here.) We would also be pleased to consider new designs for custom packaging.

Within this family there are four basic switches: the AT, the 3AT, the 4AT, and the 10AT. Each has been optimized for particular performance characteristics and is capable of meeting the demands of low-level current switching applications.

The Klixon® KX Series hermetically sealed sine switch is a precision snap-acting device. It is designed for use in the aerospace industry and for other applications where operational freedom from environmental conditions is a requirement. (Performance chart.)

KX series switches are sealed within a one-piece steel case engineered to withstand extremely low or high ambient pressures. True hermetic sealing is achieved with a metal "wave type" diaphragm at the actuating lever. The actuating arm is keyed to hold the arm in alignment and to prevent damage to the diaphragm.

The switching element is the versatile Klixon® sine switch. This simple, one-piece element eliminates knife edges and high friction joints. Rigidly supported at both ends and accurately prestressed in tension, the sine switch features outstanding resistance to shock and vibration.

Klixon® switches have been used in a variety of aircraft, weapons systems, aircraft engine and aerospace applications for well over 30 years. A brief listing of typical applications include:

- Door interlock systems
- Aircraft engine ignitions
- Aircraft missile launcher position indication
- External stores emergency jettison switches
- Stowed / deployed indication for thrust reversers
- Safety ignition indication for military jet engines
- Radar pod door switches
- Tank/armored personnel carrier missile launcher switches
- Tank gun turret position indication

SPECIFICATIONS

		AT		3AT	4AT	10AT	KX
Current Ratings (28VDC)	Res.	3 amp	1 amp	1 amp	3 amp	4 amp	10 amp
	Ind.	1 amp	0.5 amp	0.5 amp	1 amp	1 amp	5 amp
	Lamp	1 amp	0.5 amp	0.5 amp	1 amp	2 amp	3 amp
Min Life at Rated Load Cycles		25K	50K	25K	25K	25K	25K
Min Mechanical Life Cycles		100K		100K	50K	50K	25K
Ambient Temperature Range		-65°F to 275°F (-53.8°C to 135°C)		-65°F to 450°F (-53.8°C to 232.2°C)	-275°F to 275°F (-170.5°C to 135°C)	-85°F to 275°F (-65°C to 135°C)	-65°F to 275°F (-53.8°C to 135°C)
Dielectric Strength Terminal to Case VRMS Terminal to Terminal VRMS		1000 800		500 500	1000 800	1000 800	1250 1250
Max Leakage Std. cc He/Dec		1 x 10 ⁻⁸					1 x 10 ⁻⁶
Shock		200G, 6 ms sawtooth					100G
Vibration		65G, 10 - 2000Hz, .5 DA or 65 G RMS					20G
Insulation Resistance @ 500VDC		100 megaohms	100 megaohms	100 megaohms	100 megaohms	100 megaohms	—