IMPORTANT

PRODUCT APPLICATION NOTES AND WARNINGS

DURAKOOL[®] brand relays, manufactured by AEC, will achieve exceptional performance when applied according to the ratings and operating conditions for which they are designed. Their cycle life, in harsh application conditions, will normally go beyond that attained by other relay types (electromechanical or solid state). However, they do have a finite life that is affected by the applications into which they are installed.

Relays, of any type, cannot be designed to last forever.

Use the cycle life charts and installation instructions, available in our catalog or on our website, <u>www.aecsensors.com</u>, as they pertain to the specifics of your application, to assign a Preventative Maintenance Schedule. <u>All applications should be developed to include preventative maintenance plans for relay replacement to prevent unscheduled down time and the potential for failure of the relay.</u>

Extended service periods and other extraordinary conditions can lead to contact failures.

PRECAUTION IN CIRCUIT DESIGN MUST BE TAKEN TO PREVENT THE POTENTIAL FOR CATASTROPHIC DAMAGE.

Note: All relay types, solid state, mechanical or mercury displacement, can fail to open their contacts when the control signal is removed. "Sticking closed" is the common term for this failure mode. This is more prevalent in units that have been in service for extended periods or that have been damaged by a fault condition or circuit transient, such as voltage or current spikes. In such cases, the structure of the contacts may be compromised, thereby shortening their cycle life capability.

In heating applications this could lead to the heaters remaining in the energized state and over-heating.

Unless such applications are designed to include either the use of redundant inline relays, or separate over-temperature sensors to open the circuit and act as a fail-safe system shutdown, a fire or other loss due to the failure of the relay could result.

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