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LS Landing Systems

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General

Four landing systems are available, LS-STAN, LS-QUTE, LS-QUAD, and LS-QUIK. Depending on specified requirements, a consultant or contractor can choose the appropriate landing system for the specific application.

In This Section

- LS-STAN, Vane-Actuated
- LS-QUTE, Tape and Magnet
- LS-QUAD for IMC
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LS-STAN, Vane-actuated VS-1 Proximity Switch

This product can be used with any elevator control system that requires discrete and fixed slowdown distances. It can be used with all MCE control systems except IMC (Intelligent Motion Control), which requires the model LS-QUAD-2 or LS-QUICK landing systems.

The LS-STAN landing system uses MCE's model VS-1 proximity switches actuated by vanes located in the hoistway. This landing system should not be used outdoors or in brightly lighted areas. Model LS-STAN5 is recommended for slower speeds and uses three lanes and five switches. Model LS-STAN7 is recommended for higher speeds, provides one-floor-run capability, and uses five lanes and seven switches. Other configurations are available to accommodate rear doors and other special applications. Consult your MCE Sales Representative for additional information.

Specification Text, LS-STAN

The hoistway landing system shall use model VS-1 vane operated infrared optical switches to sense the position of the elevator in the hoistway. It shall provide stepping, leveling, door zone and floor encoding signals.

The vane switches shall be installed on a 14-gauge steel enclosure with adequate adjustment capability, and shall include labeled terminals for electrical interconnection.

The landing system shall include vanes and mounting hardware for vane mounting in the hoistway.

Switches shall be accurate to 0.0625" (1.59 mm) and the accuracy shall be the same regardless of direction of travel.

Switches shall not exhibit any interaction when arranged in any compact configuration.

Switch size shall allow horizontal spacing of lanes as close as 2" (50.8 mm), center to center.

LS-QUTE, Steel Tape and Magnetic Strips

This product can be used with any elevator control system that requires discrete and fixed slowdown distances. It can be used with all MCE control systems except IMC (Intelligent Motion Control), which requires the LS-QUAD-2 or LS-QUIK landing systems. The advantage of the LS-QUTE system is its ease of installation and the fact that it can be used in a brightly lighted area. Corrosion may result if the steel tape is installed in an environment that is high in moisture, salt or chemical vapors (stainless steel tape optional). Consult your MCE Sales Representative for additional information.

Specification Text, LS-QUTE

The landing system shall provide high speed stepping signals, one-floor-run stepping signals, leveling and door zone signals and optional floor encoding signals. Each output signal shall be electrically isolated and shall be capable of reliably operating at 120 VAC.

The system shall consist of a steel tape with mounting hardware to accommodate the complete travel of the elevator, a car top assembly with tape guides and sensors and magnetic strips for stepping, leveling and floor encoding.

LS-QUAD-2 for IMC

Recommended Use - This landing system is to be used for premium control systems that require precise knowledge of the position of the elevator for feedback purposes such as IMC (Intelligent Motion Control). The LS-QUAD-2 can be used for car speeds up to 800 fpm and travel of less than 300 feet. Corrosion may result if the steel tape is installed in an environment that is high in moisture, salt or chemical vapors. Consult your MCE Sales Representative for additional information.

Specification Text, LS-QUAD-2

The hoistway landing system shall be designed to provide the controller with precise information as to the absolute position of the car in the hoistway. With the car at a landing, the landing system shall indicate to the controller the actual floor number, so that movement to terminal landings or specific floors shall not be necessary to establish car location.

A perforated steel tape with holes on 0.75" (19 mm) centers shall be used with dual sensors to provide a quadrature signal to read the position of the elevator with accuracy of 0.1875" (4.76 mm) resolution over the entire length of the hoistway.

Leveling and door zone signals shall be provided using magnetic strips on the tape.

Magnetic strips on the tape and sensors shall be provided to give a binary coded floor position with parity check each time the car stops at a floor.

Optional - A version of the landing system shall be available which provides all necessary circuits for any arrangement of rear doors. This version shall not require additional tapes in the hoistway and the enclosure dimensions shall be identical to the conventional (non-rear door) version.

LS-QUIK for IMC

This landing system is to be used for premium control systems that require precise knowledge of the position of the elevator for feedback purposes such as IMC (Intelligent Motion Control). The LS-QUIK is recommended for car speeds over 800 fpm or travel greater than 300 feet or where steel tape is not recommended. Consult your MCE Sales Representative for additional information.

Specification Text, LS-QUIK

The hoistway landing system shall be designed to provide the controller with precise information as to the absolute position of the car in the hoistway. When the car is at a landing, the landing system shall indicate the actual floor number to the controller. As a result, movement to terminal landings or specific floors shall not be necessary to establish car location within the building.

A car top mounted, wheel driven encoder shall be used. The encoder shall provide a quadrature signal to read the position of the elevator with accuracy of 0.1875" (4.76 mm) resolution or better over the entire length of the hoistway.

Leveling, door zone and floor encoding signals shall be provided by using a single floor mounted vane coupled with VS-1 sensors.

Optional - A version of the landing system shall be available which provides all necessary circuits for any arrangement of rear doors.