With keypads, transmitters, and controllers, Linear makes it easy to build wireless entry system packages.

From activation to operation, the solution to your entry requirements is all available from Linear

Since 1961, Linear's name has been synonymous with wireless remote controls and entry devices for activating all manner of access equipment.

With each passing decade, we've added more product lines and more capabilities. Access control, from telephone entry to stand-alone keypads. Garage door operators, belt and chain models, in a variety of horsepower choices, all in installer-friendly designs. Gate operators, for swing, slide, and barrier gates in a complete range of residential, commercial, and industrial applications. Commercial door operators jackshaft and drawbar, for roll-up and high-lift doors. Add in a field network known for dedicated customer support and your best entry systems resource is all available from Linear.

MDKP FEATURES
- 1-6 digit keypad entry codes
- Long-life lithium battery
- Rugged cast aluminum housing
- Built-in courtesy light

AP-5 FEATURES
- Easy to program and use
- Easy to add or suspend transmitters and entry codes
- Compatible with up to six MGT gate safety edge transmitters

Access Control Keypads
A wide range of choices for building single entry point systems.

New Models!
New Features!
STANDARD FEATURES

- All programming is done at the keypad, no separate programmer is required.
- Up to 480 programmable keypad entry codes.
- Entry codes can be one to six digits long.
- Four independent outputs (two relay and two solid-state).
- Output actions (timed or latch-on/latch-off toggle) programmable for each entry code independently.
- Two status indicators to signal access, lockout, and aid in programming; one indicator is dual-color.
- Tactile audible feedback ensures complete key presses.
- Internal sounder has two selectable volume levels.

EXTENDED FEATURES

Each keypad model contains several extended features to customize the installation, and to provide detection of abnormal conditions for triggering security systems or activating other auxiliary devices.

The SENSE input: If programmed for “door sense,” wiring the input to a door switch detects forced entry or door ajar conditions. If programmed for “inhibit,” the input can be wired to service switch or timer to disable the main relay.

The FORCED ENTRY output: Activates if the door sense input detects that the door or gate was forced opened without authorized access being granted.

The DOOR AJAR output: Activates if the door or gate remains open longer than 60 seconds after access is granted.

The KEYPAD LOCKOUT output: Activates when the keypad is “locked out” after too many incorrect entry code attempts.

The KEYPAD ACTIVE output: Activates when any keypad keys are pressed.

The ALARM SHUNT output: Allows shunting door or gate alarm contacts during authorized access.

When programmed for “door sense,” wiring the input to a door switch detects forced entry or door ajar conditions. If programmed for “inhibit,” the input can be wired to service switch or timer to disable the main relay.

Other programmable features include: timed anti-passback to disable an entry code for a programmed time after use; auto-relock releases the main relay as soon as the door shuts; internal beeper can activate selectively for keystrokes and activation of each output. The EEPROM memory retains all entry codes, programming, and all output toggle states (except on AK-2 & AKR-1) after power outages.

SPECIFICATIONS

MECHANICAL

- **AK-11:** 4.00” W x 5.00” H x 3.00” D
  (101.6 W x 127.0 H x 76.2 D mm)
- **AK-2, AK-21W, AK-31:** 3.00” W x 5.00” H x 3.00” D
  (76.2 W x 127.0 H x 76.2 D mm)
- **AKR-1:** 4.00” W x 7.00” H x 3.00” D
  (101.6 W x 177.8 H x 76.2 D mm)

ELECTRICAL

- Voltage: 12-24 Volts AC or DC
- (AC Supply must be isolated from access device)

- **Current:**
  - **AK-11, AKR-1:** 10 mA typical, 150 mA maximum
  - **AK-2, AK-21W, AK-31:** 30 mA typical, 150 mA maximum
- **Outputs:**
  - Main Relay: Form “C” 5 Amps @ 28 Volts maximum
  - Auxiliary Relay: Form “C” 1 Amp @ 28 Volts maximum
- **Solid State Outputs:** Short-to-common 100 mA @ 24 VDC maximum

ENVIRONMENTAL

- Temperature: -22°F to +149°F (-30°C to +65°C)
- Humidity: 5% to 95% non-condensing

Linear’s digital keyless entry systems are designed for single entry point access control applications. These keypads are typically used to activate automatic gates, electric door strikes, magnetic door locks, and solenoid locks. Access is granted to authorized personnel by entering an assigned code on the keypad.

Each keypad features courtesy lighting that illuminates the keypad during use (not available on the AK-31). The lighting is provided by an automotive grade bulb. The duration of the courtesy lighting is programmable.

With so many keypads, Linear makes it easy to build single entry point systems.
STANDARD FEATURES

- All programming is done at the keypad, no separate programmer is required
- Up to 480 programmable keypad entry codes
- Entry codes can be one to six digits long
- Four independent outputs (two relay and two solid-state)
- Output actions (timed or latch-on/latch-off toggle) programmable for each entry code independently
- Two status indicators to signal access, lockout, and aid in programming; one indicator is dual-color
- Tactile audible feedback ensures complete key presses
- Internal sounder has two selectable volume levels

EXTENDED FEATURES

Each keypad model contains several extended features to customize the installation, and to provide detection of abnormal conditions for triggering security systems or activating other auxiliary devices.

The SENSE input: If programmed for “door sense,” wiring the input to a door switch detects forced entry or door ajar conditions. If programmed for “inhibit”, the input can be wired to service switch or timer to disable the main relay.

The FORCED ENTRY output: Activates if the door sense input detects that the door or gate was forced opened without authorized access being granted.

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The KEYPAD LOCKOUT input: Activates when the keypad is “locked out” after too many incorrect entry code attempts.

The KEYPAD ACTIVE output: Activates when any keypad keys are pressed.

The ALARM SHUNT output: Allows shunting door or gate alarm contacts during authorized access.

The REQUEST-TO-EXIT input: Can be wired to an exit station pushbutton for codeless activation of the main relay, auxiliary relay, or either solid state output.

Other programmable features include: timed anti-passback to disable an entry code for a programmed time after use, auto-relock releases the main relay as soon as the door shuts; internal beeper can activate selectively for keystrokes and activation of each output. The EEPROM memory retains all entry codes, programming, and all output toggle states (except on AK-2 & AKR-1) after power outages.

SPECIFICATIONS

**MECHANICAL**

<table>
<thead>
<tr>
<th>Model</th>
<th>Width x Height x Depth</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
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**ELECTRICAL**

- Voltage: 12-24 Volts AC or DC (AC Supply must be isolated from access device)

- Current:
  - AK-11, AKR-1: 10 mA typical, 150 mA maximum
  - AK-2, AK-21W, AK-31: 20 mA typical, 150 mA maximum

- Outputs:
  - Main Relay: Form “C” 5 Amps @ 28 Volts maximum
  - Auxiliary Relay: Form “C” 1 Amp @ 28 Volts maximum
  - Solid State Outputs: Short-to-common 100 mA @ 24 VDC maximum

**ENVIRONMENTAL**

- Temperature: -22°F to +149°F (-30°C to +65°C)
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**Fabrication**

- AK-11: Rugged, cast aluminum enclosure
- AK-2: Exterior Surface Mount Keypad
- AKR-1: Exterior Surface Mount Keypad with Built-in MegaCode® Radio Receiver
- AK-21W: Interior Flush Mount Keypad With Interchangeable Bezels
- AK-31: Interior Low Profile Flush Mount Keypad
- AKR-1: Exterior Surface Mount Keypad

Linear’s digital keyless entry systems are designed for single entry point access control applications. These keypads are typically used to activate automatic gates, electric door strikes, magnetic door locks, and solenoid locks. Access is granted to authorized personnel by entering an assigned code on the keypad. Each keypad features courtesy lighting that illuminates the keypad during use (not available on the AK-31). The lighting is provided by long-life solid state white LEDs (except on the AK-11 and the AKR-1, which have incandescent lighting with an automotive grade bulb). The duration of the courtesy lighting is programmable.
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