

# 12-Inch Aluminum Signal



▷ ▷ All Econolite signals are designed to meet or exceed the Institute of Transportation Engineers (ITE) standards.

## About Signals

Each traffic signal consists of a number of identical signal sections rigidly fastened together to present a continuous, pleasing appearance. Each section has a separate and complete housing. The traffic signal meets or exceeds the latest version of the Equipment Standard from the Institute of Transportation Engineers (ITE).

### At A Glance

- ▷ Tested to ITE required wind loading on single-point attachment
- ▷ Straight sides - no protruding hinges or latches
- ▷ Stainless steel hardware
- ▷ Reversible door - left side standard, right side optional
- ▷ Provisions for two, five, or six-position terminal blocks in each housing
- ▷ Ethylene Propylene Diene Monomer (EPDM)



## Housing

The housing of each section is a one-piece corrosion-resistant aluminum alloy die-casting conforming to ASTM B85 Standard SG100B. Two integrally-cast hinge lugs and latch screws are cast on each side of the housing. Built upon a symmetrical concept, each housing is capable of providing either right or left-hand door openings. While the left hinge is standard, the right hinge must be specified. The top and bottom of the housing have openings to accommodate standard 1½-inch pipe brackets. Each signal section is rigidly attached, one above the other, by means of corrosion-resistant bolts and a washer attachment that allows sections to be rotated about a vertical axis. Alternate means for attaching sections together are available. The housing consists of four matching punch-out locations on the top and bottom of each section to allow sections to be bolted together with four 1½-inch and 10-32 corrosion-resistant screws.

The top and bottom openings of the signal housing have an integrally-cast Shurlock boss. The radial angular grooves of the Shurlock boss, when used with Shurlock fittings, provide positive five-degree increment positioning of the signal head to eliminate rotation or misalignment of the signal. Each housing has cast bosses for two-, five-, or six-position terminal blocks. Each position is identified with both number and function cast on housing. Each housing has provisions for easily adding a back-plate. Hinge pins, door latching hardware, visor back-plate, and lens clip screws are high-quality stainless steel.

## Optical System

All LEDs shall be fully compliant to the ITE Vehicle Traffic Control Signal Heads (VTCSH) LED Circular Supplement specifications dated and adopted June 27, 2005. Tests of the LEDs shall include but not be limited to the luminous intensity measurements and requirements outlined in the ITE specification sections 6.4.4 through 6.4.4.4.2 (25°C and 74°C/49°C).

## Standard Colors Are:

- ▶ **Dark Olive Green (matches Federal Standard 595b-14056)**
- ▶ **Yellow (matches Federal Standard 595b-13538)**
- ▶ **Dull Black (matches Federal Standard 595b-37038)**

## Painting

All interior and exterior parts of the housing, door, back-plate, and visor are pre-treated for painting (door and housings are unpainted on the outside) in the following stages: Degrease, rinse, etch with an iron phosphate solution, rinse, final dionized water rinse, and then dry for 10 minutes at 400°F. The parts are then painted with a single coat of environmentally-safe, ultraviolet-resistant, polyester powder coating which is applied electrostatically at 90 kV and baked for 20 minutes at 400°F per ASTM D-3359, ASTM D-3363, and ASTM D-522. The signal head color is specified by the customer, except for the inside of the visor and the front side of the backplate which are painted dull black.

## Wiring

Each receptacle provides two leads with "Fast-on" type terminals. Wires are color coded per customer specifications.

Lamp receptacle conductors are No.18 AWG (or larger) 600V appliance wiring material, which conforms to Military Specification MIL-W-16878 D, Type-B with a vinyl nylon jacket rated 115°C.

