



8-Inch Polycarbonate Signal

General

Each traffic signal head consists of a number of completely 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 Equipment Standard of the Institute of Transportation Engineers' (ITE) latest revision.

Housing

The housing of each section is a one-piece molded ultraviolet and heat-stabilized polycarbonate unit. 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 is special and 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 allow 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 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 entire signal head to eliminate rotation or misalignment of the signal. Each housing has cast bosses for two five-position terminal blocks. 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.

Features

- Tested to ITE-required wind loading on a single-point attachment
- Reversible door - left side standard, right side optional
- Lower maintenance with molded-on color
- Stainless steel hardware
- Doors equipped with 2 latches
- "Fast-on" tab terminal block
- Provisions for 2 five-position terminal blocks in each housing
- Ethylene Propylene Diene Monomer (EPDM)

Housing Door

The housing door of each section is a one-piece, molded ultraviolet and heat-stabilized polycarbonate unit. Two hinge lugs are cast on one side and two latch jaws are cast on the other side. The door is attached to the housing by means of two stainless steel hinge pins. Two stainless steel latch screws and wing nuts on one side of the door allow opening and closing the signal door without the use of any special tools. A gasket groove on the inside of the door accommodates a weatherproof and mildew-proof resilient gasket which, when the door is closed, seals flat against the housing, creating a positive seal. The outer face of the door has four metal-threaded inserts equally spaced about the circumference of the lens opening with four screws to accommodate the signal head visors. The door and visor overlap to prevent light escaping between the visor and the door (visor collar).

Optical System

All LED's shall be fully compliant to the ITE VTCSH LED Circular Supplement specifications dated and adopted June 27, 2005. Tests of the LED's shall include but not be limited to the luminous intensity measurements and requirements outlined in the ITE specifications 6.4.4 through 6.4.4.2 (25°C and 74°C/49°C).

To ensure optimal quality of illumination, uniformity, reliability, and appearance, all ball traffic signal modules shall utilize Hi-flux LED's rated at 1-watt or higher, as their source of illumination. The lens's gasket slotted design simplifies lens replacement and orientation in the field.

Wiring

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

The 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.

Terminal Block

Each complete signal face is provided with a terminal block. The terminal block is placed in the bottom section, unless otherwise specified. The terminal block for a standard three-section head is a five-position, ten-terminal, barrier-type strip. To one side of each "Fast-on" terminal strip is the attached AC common, red, yellow, and green signal section leads, leaving the opposite screw clamp terminal for field wires.

Visors

Visors can be tunnel, full-circle, or cap, and are a minimum of eight inches long. Visors are molded from ultraviolet and heat-stabilized polycarbonate and include twist-on attaching tabs to facilitate installation.

Color

The housing and door are molded of one-color polycarbonate material throughout. The inside of yellow visors are painted lusterless black. The stainless steel parts are not painted.

Standard colors are:

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

Technical Data

- Dimensions (less visor): 10 in. H x 10 in. W x 6 5/8 in. D
- Weight, typical:
 - Poly = 3.1 lb (less visor)
 - Glass = 3.65 lb (less visor)

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3360 E. La Palma, Anaheim, CA 92806-2856
Tel: (714) 630-3700 • Fax: (714) 630-6349
E-mail: sales@econolite.com
21207E0607-9



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