



12-Inch Polycarbonate Pedestrian Signal

General

The pedestrian signal head uses ultra-bright LED technology to project highly visible signs, contributing to pedestrian safety. Having each LED symbol (a pedestrian or a hand) superimposed in a single section of the 12-inch (305 mm) pedestrian signal head allows the signal to perform functions that would otherwise require two sections or a larger housing. Each LED symbol lights up when a 120 VAC power is applied to the appropriate circuit using the intersection controller.

Optical

The light emitting elements use ultra-bright LEDs, which are visible in sunlight as well as at night. The LEDs used for the hand symbol and the countdown timer are red with a rated light output of 600 mcd or more. The LEDs used for the pedestrian symbol are green with a rated light output of ≥ 300 mcd. All LEDs are directional to project toward the viewer. The half brightness point relative to on-axis brightness is within $\pm 10^\circ$.

The signal is designed so that it is usable in the event that an individual LED should fail and open a series circuit. There are no more than 15 LEDs in any series circuit, while adjacent LEDs belong to different circuits.

The lens protecting the LEDs measures 12 inches (305 mm) in diameter and is made of impact-resistant clear polycarbonate plastic. The outer surface of the lens is slightly frosted to minimize unwanted reflections.

Electrical

At 120 AC power line voltage, the average power consumption for the signal does not exceed ten watts.

The electrical light circuits for the hand and pedestrian symbols have their own 120 AC power connection to the intersection controller via clearly labeled screw terminals. A separate power transformer is used to step down the incoming 120 VAC power for each circuit.

For ease of replacement, the LED board and transformers are part of the door assembly, which is easily removable without the use of special tools.

Features

- Uses ultra-bright LEDs
- For ease of replacement, LED board is part of door assembly
- Lens outer surface is slightly frosted to minimize unwanted reflections
- Ultra-bright LEDs are visible in sunlight as well as at night

Housing

The main housing is a one-piece, ultraviolet and heat-stabilized, flame-retardant polycarbonate molding. Two integrally-molded hinge lugs and two integrally-cast latch screw slots are on opposite sides of the housing. The housing is capable of providing either right or left-hinged door opening (left is standard, right must be specially ordered). The top and bottom of the housing have openings to accommodate standard 1½-inch (38 mm) pipe brackets. Each opening has a Shurlock boss integrally-cast into the housing. The radial angular grooves of this boss, when used with Shurlock fittings, allow positive five-degree increment alignment of the signal head.

Housing Door

The structural part of the door is a one-piece, ultraviolet and heat-stabilized, flame-retardant polycarbonate unit molding. Two integrally-molded hinge lugs and two integrally-cast latch screw slots are on opposite sides of the door. The door is attached to the housing by means of two stainless steel hinge pins that allow easy removal without the use of tools. Two latch screws with wing nuts on one side of the door allow quick door opening and closing without the use of tools. A closed-cell, resilient neoprene gasket is mounted in a groove inside the door and compressed against the main housing once the door is closed to provide a positive environmental seal against external dirt and moisture.

The optical lens in the door is made of shatter-proof polycarbonate plastic. The lens is mounted into a molded full-circle silicone gasket, which is pressed against the molded door to provide an additional positive seal. The gasket lens and the circuit board holding the LEDs are secured to the door with four easily removable stainless steel screws. The lens is slightly frosted to avoid unwanted reflections.

The outer face of the door provides four equally-spaced holes for attachment of an optional square cutaway visor or round cap visor. Visors are made of ultraviolet and heat-stabilized polycarbonate. Visors have twist-on attaching ears to facilitate installation.

In addition to the signal head visor, there is an available honeycomb sunscreen lens cover or a slatted (louvered) sunscreen lens cover. The honeycomb sunscreen is installed parallel to the face of the message. The honeycomb cells are diamond-shaped with nominal diagonal measurements of 1½ inches (38 mm) horizontal by ¾ inch (19 mm) vertical and a depth of 1½ inches (38 mm). The louvers of the slatted sunscreen have a depth of 1½ inches (38 mm) and a vertical pitch of 1⅛ inches (29 mm). They recess from top to bottom with a horizontal pitch of 0.52 inches (13.2 mm).

Stainless steel is used for the hinge pins, door-latching hardware, and screws to hold the visor screws and sunscreen. Stainless steel parts are not painted.

Plastic Material and Color

The housing and door are molded of one-color polycarbonate plastic throughout. For long life and maximum mechanical strength, no reprocessed or scrap polycarbonate material is used. The color of the sunscreen and the inside of the visor are black. The color of the housing, door, and exterior of the visor are as specified.

Standard colors are:

- Green (matches Federal Standard 595b-14056)
- Yellow (matches Federal Standard 595b-13538)
- Flat Black (matches Federal Standard 595b-37038)
- Gray (matches Federal Standard 595b-26373)

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