ECONOLITE
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# 16-Inch LED Aluminum Pedestrian Signal

**The 16-inch pedestrian signal is specifically designed to accept all LED manufacturer's modules.**

## General

The 16-inch LED aluminum pedestrian signal includes a cast aluminum housing, a solid-state LED indication message lens, a single-piece cast aluminum swing-down door, a "Solar Screen" sun visor, a terminal block, and optional mounting hardware.

The 16-inch LED aluminum pedestrian signal displays bright and uniform symbol messages - "HAND" in Portland Orange and "PEDESTRIAN" in Lunar White. The pedestrian signal is designed to be easily visible during extreme ambient light conditions.

## Housing

The housing is a one-piece, corrosion-resistant, aluminum alloy die-casting. Two integrally-cast hinge lugs and screw slots are on each side of the housing. Through symmetrical design, the housing is capable of providing a swing-down door opening.

The housing has two openings to accommodate standard 1½-inch pipe brackets. The top and bottom opening 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 includes cast bosses for one three-terminal pair (six-screw) terminal block.

## Door

The door consists of a one-piece, corrosion-resistant, aluminum alloy die-casting. Two hinge lugs are cast on top of the door and two latch points are cast on the bottom.

The door is attached to the housing by means of two hinge pins. Two eye bolts and wing nuts on one side of the door are provided for opening and closing the door without the use of special tools.

A gasket groove on the inside of the door will accommodate a weatherproof and mildew-proof resilient gasket which, when the door is closed, will seal against a raised bead on the housing, creating a positive seal.

The Solar Screen visor is inserted through the back side of the door. The visor overlaps the door by ½ inch and is sealed when the door is closed to prevent light from escaping between the visor and the door.

## Features

- Slim profile, allowing for 5% less weight than the alternatives
- Mounts left or right with use of the side mount bracket
- Reduced energy consumption - up to 90% less energy consumption than pedestrian signals with incandescent lamps
- Meets or exceeds applicable Institute of Transportation Engineers (ITE) specification
- Outlasts neon and incandescent lighting
- No LED "Hot Spots"
- "Fast-on" tab terminal block

## Field Terminal Assembly

The field terminal assembly includes a three-terminal pair (six-screw) type terminal block for termination of the three field wires for AC (+) for the HAND display, AC (+) for the PEDESTRIAN display, and AC (-). Connected to the opposite side of these terminals is a pigtail lead. The free end of each lead is terminated with an insulated female quick-disconnect socket that mates with the male lug, supplied on the message module. The field terminal assembly includes an aluminum base or back-plate that is bolted to the signal housing.

## LED Option

The LED module is a fully-encapsulated LED HAND/PEDESTRIAN module. The LED PC board is enclosed in a plastic module and is mounted to be impervious to shocks generated during shipping, handling, and installation. In order to facilitate installation and maintenance, the signal is designed so that the LED message module is removable and the field wiring terminals are readily accessible from the front by merely opening the signal door. The rear of the tray provides three male quick-disconnect lugs for connection of AC (+) for the HAND display, AC (+) for the PEDESTRIAN display, and AC (-). The tray is sealed with a 1/8-inch (3 mm) clear, UV-stabilized, refraction-type, 3/16-inch polycarbonate lens which is weather, craze, and heat resistant. The module is further sealed with a one-piece Ethylene Propylene Diene Monomer (EPDM) neoprene gasket fitted around the perimeter to provide positive protection of the enclosed LEDs and electronics from handling, weather, and moisture. Removal and insertion of the module does not require the use of tools.

Messages are displayed in the Portland Orange "HAND" and the Lunar White "PEDESTRIAN", illuminated by multiple configuration Light-Emitting Diodes. The "HAND" and "PEDESTRIAN" symbols are each a minimum of 12 inches in height and seven inches in width and are configured as shown in the Manual on Uniform Traffic Control Devices (MUTCD).

## Solar Screen Visor Option

The Solar Screen visor option is designed to eliminate sun phantom and minimize damage to the LED signal module.

The Solar Screen visor is installed parallel to the face of the "HAND/PEDESTRIAN" symbol. The Solar Screen visor assembly is held in place by the use of stainless steel screws.

The Solar Screen assembly consists of a minimum of 20 straight horizontal louvers and 21 zigzag pattern horizontal louvers.

## Warranty

The entire pedestrian signal, including LEDs, solid-state control, and polycarbonate parts, are warranted for one year from the date of original shipment against defects in workmanship and/or materials.

## Dimensions & Weight

The maximum overall dimension of the signal is 18 inches wide, 16.5 inches high, and seven inches deep (457 x 419 x 178 mm), including the Solar Screen type visors and hinges. The distance between the mounting surfaces of the upper Shurlock and the lower Shurlock openings is 16 inches (406 mm). The weight of the signal, excluding mounting hardware, is 23 pounds, maximum.

## LED Specifications

- Voltage Range 80V to 135V AC; normal 120V AC (less than 10% variation in intensity)
- Power: Maximum 15W Hand; maximum 10W Pedestrian
- Operating Temperature: -40°C to +74°C
- Storage Temperature: -40°C to +93°C
- Power Factor Correction: >0.90
- Total Harmonic Distortion: <20%
- Dimensions: 18 in. x 16 in. x 4.5 in.
- Fuse and transient suppressor incorporated for line and load protection
- LEDs interconnected to minimize effect of LED string failure
- Meets or exceeds NEMA Moisture Resistance STD 250-1991 for Type-4 enclosures (ITE 6.4.6.2 Moisture Resistance)



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