

March 19, 2025

## **BOSTON TRANSPORTATION DEPARTMENT Specifications for Pedestrian Signal Housings**

### **General**

The general components of the pedestrian signal shall include a single piece housing, single piece swing down door frame, tunnel sun visor, clamshell mounting bracket, and appropriate hardware. At a minimum, the pedestrian signal shall meet the following requirements:

- Maximum Overall Housing Dimensions – 18.75” H x 18.5” W x 9” D
- Housing – One piece, die-cast aluminum alloy with two integrally-cast hinge lugs, screw slots and openings at the top and bottom
- Door – One piece, die-cast aluminum alloy, with two integrally-cast hinge lugs on the top and two latch points on the bottom
- Latching System – Eye Bolt Assemblies
- Hardware – Stainless steel
- Sun Visor – One piece aluminum, tunnel shaped
- Clamshell Mount – Two piece, die-cast aluminum alloy, with two stainless steel spring pins
- Environmental – Dustproof and weatherproof enclosure
- Operating Temperature – -20 degree C to +74 degree C

### **Housing**

The housing shall accommodate 16-inch LED pedestrian modules which shall be included unless otherwise noted on plans or in specifications.

The four integrally cast hinge lug pairs, two at the top and two at the bottom of each case, shall be provided for operation of the swing down door.

The housing, when properly mated to other pedestrian signal components/mounting hardware and shall provide for easy access to and replacement of all components.

The housing shall be provided with holes for left or right clamshell mounting and shall contain upper and lower openings as described below, suitable for either post top or bracket mounting. All initially unused openings shall be adequately plugged.

The openings included at the top and bottom of the housing shall accommodate standard 1 1/2-inch pipe brackets. The bottom opening of the housing shall have an integrally-cast locking boss. The radial teeth of the locking boss shall be clean and sharp and provide full engagement. The radial angular grooves of the shurlock boss, when used with shurlock fittings, shall provide positive positioning of the entire signal to eliminate rotation or misalignment of the pedestrian signal.

The top and bottom of the housing shall have knock-out plugs to eliminate the need for additional hardware to close the openings when using a post-top or clamshell mounting bracket.

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**Door Frame**

To facilitate installation and maintenance, the housing shall be designed so that all components are readily accessible from the front by merely swinging the door down. Attachment of the door to the housing shall consist of two hinge pins at the bottom, while two eye bolts and wing nuts on the door shall use to secure the door to the housing.

The door frame shall be a one-piece corrosion resistant aluminum alloy die casting, complete with two hinge lugs cast at the bottom and two latch slots cast at the top of each door. The door shall be attached to the case by means of two Type 304 stainless steel spring pins. Two stainless steel hinged bolts with captive stainless steel wing nut and washers shall be attached to the top of the case with the use of stainless-steel spring pins. Hence, latching or unlatching of the door shall require no tools.

**Clamshell Mount**

The housing shall be supplied with clamshell hardware mounted for "*pole left of message*" or "*pole right of message*" appropriate for the intersection housing array. For a supply bid, the mix of left and right mounted clamshell hardware shall be as directed by the Boston Transportation Department.

Approximate overall dimensions of the clamshell mount shall be 11" H x 5" W x 2.5" D.

The clamshell mount shall be equipped with a 3-position terminal block with provisions to allow field wiring by screw type or quick disconnects.

The clamshell mount shall be equipped with rain shield and neoprene sponge gasket to prevent water intrusion and rain-tight construction.

The clamshell mount shall have provisions to allow for banding or bolting directly to the traffic signal post or pole.

**Finish**

Prior to final assembly, the housing, door, and clamshell mounting bracket shall have an electrostatically applied powder coat finish and oven baked. The color and housing, mounting bracket, and visor shall be Gloss Black.

**Submittal**

Prior to manufacture of the order, the supplier shall submit a cut sheet with proposed features for approval by the Engineer. If so requested, the supplier shall provide a sample of the proposed product for evaluation and approval by the Engineer.

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**Warranty**

The entire pedestrian signal including, housing, door, and clamshell mounting bracket shall be warranted for a minimum of two (2) years from the date of original shipment against defects in workmanship and/or materials.