

Slim Pole

System & Technical Specifications

H-Series Slim

BrightSites H-Series Slim Pole

System Description and Technical Specifications

BrightSites H-Series Slim Pole is more compact than other solutions, making it an almost invisible addition to the cityscape. It houses an integrated antenna unobtrusively at the top of the pole, and various IoT and telecom equipment in the pole base.

The Slim Pole system consists of:



Specifications

The base is made from structural steel, hot-dip galvanized with extruded aluminium decorative panels for aesthetics and easy access to the base with two maintenance openings for access to telecom and IoT equipment. Mid-pole is constructed with steel, tapered or straight shaft.

The Slim Pole is available in various heights, colors and styles, enabling integration into any streetscape with minimal visual impact. Slim Pole comes in standard heights ranging from 4 to 12 meters with the flexibility to place the lighting luminaire at different positions and heights on the pole to maintain a consistent illumination pattern on the streets.

Pole base

- Up to 4 small cell radios (T-series)
- Up to 2 SC (H-Series)
- IoT equipment (PoE, gateway, sensors)
- Power fuse box for lighting and radio
- Fiber connection box

H-Series Slim Pole

System Description and Technical Specifications

Technical Specifications

- 4m, 5m, 6m, 7m, 8m, 9m, 10m, 11m and 12m standard pole height
- Suitable for standard lighting installation and applications
- Two separately accessible compartments in the base
- Pole can host equipment from more than one mobile network operator
- Easy maintenance for both lighting and telecom equipment
- Standard color options:
 - Moss Green (RAL 6005)
 - Fir Green (RAL 6009)
 - Yellow Green (RAL 6018)
 - Light Grey (RAL 7035)
 - Traffic Grey B (RAL 7043)
 - Jet Black (RAL 9005)
 - for custom RAL (consult factory)
- Pole material is galvanized steel with extruded aluminium panels
- Base compartment suitable for outdoor rated equipment
- Foundation reuse is possible depending on circumstances

Manufacturing Standard

Certified manufacturing standards in accordance with NEN-EN-ISO 9001:2015, NEN-EN-1090-1.

Certifications and Compliance

Regulatory standards compliant with EN 1991-1-4 and EN-40.

Pole Description

The Pole comes standard with structural steel base, hot-dip galvanized for corrosion resistance in the outdoor environment. Base is enclosed by extruded aluminium side panels and two removable doors for aesthetics and easy access to Telecom and IoT equipment inside. Doors are secured by keyed lock fastener.

The mid-pole is tapered and has a smooth steel shaft with a welded flange at the bottom. There is an air outlet at the top of the mid pole for chimney effect to cool the temperature inside the pole base. The lighting luminaire spigots come in various sizes to accommodate post top luminaires or bracket hubs and is fastened to pole with stainless hardware for flexibility in the field.

Operating Environment

Normal Operating ambient temperature range for the Slim Pole including small cell radio units is -40°C and +45°C.

Depending on solar load, pole color, micro climate around the pole, traffic load and radio configuration, the Slim Pole can operate at even higher ambient temperature than stated above.

At and above +40°C ambient temperatures, consider the risk of hot metal surfaces.

Corrosion Protection Details

Corrosion protection according to BS EN ISO 14713. To further strengthen the ground level protection, a coating is applied to the pole base. The coating has excellent physical properties such as high chemical resistance, and impact resistance, high resistance to abrasion and wear, high weatherability against heat & cold for a long lifetime. It could continuously stay in contact with water and has excellent durability to chemicals on earth.

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The IoT / Telecom Options and Accessories

The pole can be ordered with required hardware and bracketry to enable field or future installation of

- Ruckus E510 Wi-Fi AP
- Axis PTZ cameras, others on request
- Microsemi PDS-104GO outdoor-rated rugged 4-port PoE switch
- Air quality, noise, temperature, and humidity sensors
- Ericsson small cells and other brands (check with factory)

Consult local Signify contact for other makes/models.

Sensor option is configured upon specific customer need and request, consult local Signify contact for further details.

Electrical Power Distribution and Power-Meter

The pole comes with a standard power distribution box for both lighting luminaires and IoT/Telecom equipment. The pole ships with a smart meter installed inside base. Circuit box has surge protection for IoT equipment

PoE Switch

Pole ships with Microsemi PDS-104GO an outdoor PoE switch. It enables the connection of 4 powered devices to the network such as an outdoor WiFi access point and outdoor IP Camera. It delivers PoE power up to 60W per device. Switch has 5 ports – 1 SFP data input, 4 PoE outputs

Power Box for IoT

Power box consist following items:

- 1 x circuit breaker
- 1 x energy meter
- 1 x 12VDC 1.25A power supply
- 6 x 6.3A ceramic fuses

Finish

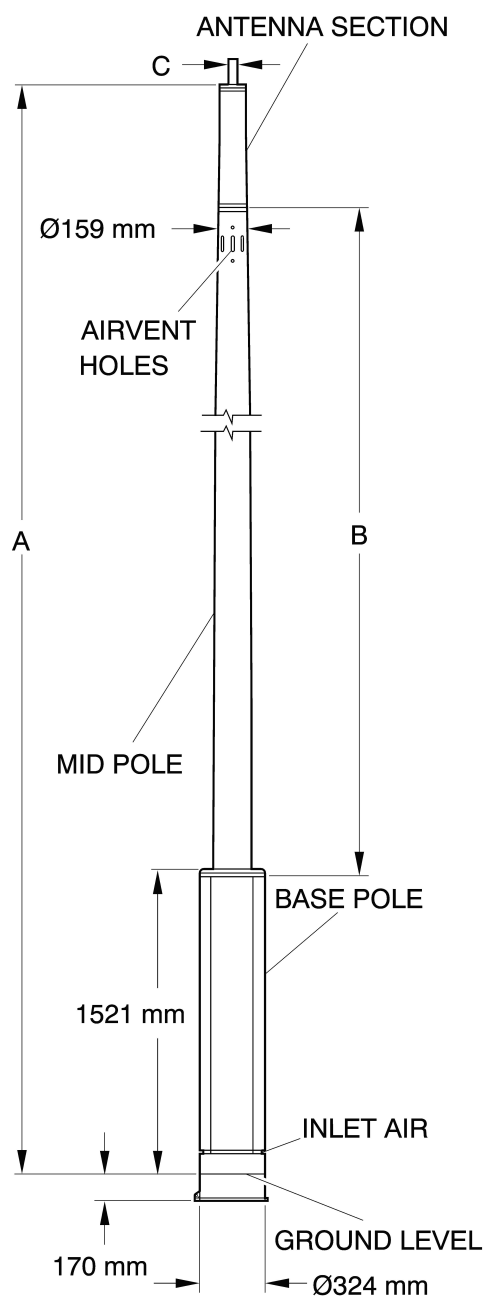
All structural steel parts are hot-dip galvanized according to TS EN ISO 1461. The hot-dip galvanized pre-treated parts (> 85-micron zinc) are finished with powder paint (> 80-micron primax and > 80-micron topcoat)

Exclusion from the specifications

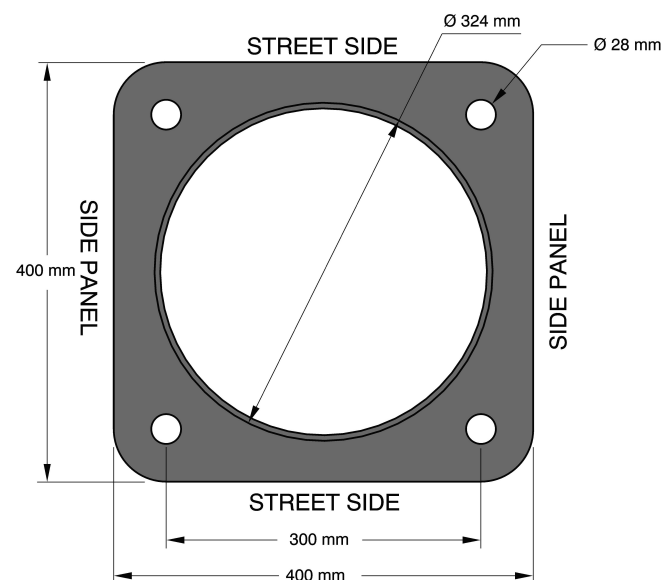
1. Signify does not warrant anything concerning and assume any liability for structural aspects of the Slim Pole which are not covered by the following regulatory standards: EN 1991-1-4 and EN-40.
2. The performance of the equipment inside the Slim Pole has been evaluated for certain environmental conditions. The environmental conditions will vary depending on the project location. Therefore, Signify does not warrant or assume any liability for the performance of the equipment inside the Slim Pole.
3. Customer is solely responsible for compliance with all applicable laws, standards and regulations of the countries in which customer (re-)sells, installs, supplies, deploys and/or otherwise disposes of the Slim Pole and for any services that customer provides to their customers with respect to the Slim Pole and/or functionalities provided or enabled by the BrightSites Slim Pole.

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Dimensions of the Pole



Dimensions for the Base Plate of the Pole Foundation



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Slim Pole Standard Data - 1

Slim Pole Standard Dimensions		
Pole Name	A Nominal Height of Pole (excluding ground clearance) (in mm)	B Height of Mid-pole (in mm)
4m Pole	4042	2115
5m Pole	4911	3115
6m Pole	6042	4115
7m Pole	6911	5115
8m Pole	8042	6115
10m Pole	10000	8115
12m Pole	11911	10115

Slim Pole Standard Data - 2

Slim Pole Weight Data		
Pole Name	Weight of Base Pole (in kg)	Weight of Mid Pole (in kg)
4m Pole	115.1	50
5m Pole		68.4
6m Pole		86.7
7m Pole		105
8m Pole		123.3
10m Pole		160
12m Pole		196.5

Slim Pole Standard Data - 3

C Top Spigot Diameter for Different Luminaires (in mm)
Post Top - 60
Post Top - 76
Side entry - 110



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