

## SLD Premium Large Digital Clock (V2.2)



### Features

- 6.0" (15.2 cm), 9.0" (22.9cm) or 12.0" (30.5cm) digits
- 24V, 110VAC, 230VAC or PoE power supply (PoE in select IP clocks only)
- 12 or 24 hour display
- Red display standard; Optional White, Green, or Amber displays
- Immediate correction for time change
- Microprocessor based clock
- Automatic LED brightness adjustment based on outside lighting conditions.
- Automatic Daylight Saving Time change (if applicable)

### Highlights

- Built-in web interface - Each clock has a built in web interface allowing the user to set up, control, and monitor the clock
  - Web interface settings include: Network settings, NTP server selection, UTC/GMT offset selection, automatic Daylight Saving Time adjustments, and much more!
- Ability to alternate between time and date in U.S. (MM:DD:YY) and international (DD:MM:YY) format at user-changeable rates
- Ten year battery backup for internal real time clock and clock settings.
- Capable of Interfacing with Sapling's Elapsed Timer Control Panel (SBD-ELT-001-0), Temperature Sensor (SLD-TEMP-000-0), and Buzzer (L-BUZZ-3300-1) accessories.
- Four selectable display font options.
- The clock features time loss notification by flashing the colon
- In addition to your chosen synchronization method, all versions of the clock support a variety of wired protocols. These protocols include 2-Wire Communication, RS485, 58 minute, 59 minute, National Time and Rauland sync-wire, Dukane Digital, and Once a Day Closure.
- Can interface with a third party system via a contact closure such as a nurse call system that can automatically trigger an elapsed timer.
- Designed and Produced by Sapling Inc. in Pennsylvania, United States of America

## SLD Premium Large Digital Clock (V2.2)

**Sapling large Digital Clocks are offered with synchronization methods to cover all of your project needs. Each method comes with bonus features that add additional capabilities to the clock!**

### Wi-Fi Clocks

- Interfaces with Sapling's Clock Monitor software which will allow the user to view, monitor, and access all of the clocks in the system
- Receives time data from one of five pre-programmed third party NTP servers (user changeable) for added reliability and redundancy. Alternatively, it can be set to receive the time data from an in-house NTP Server or from any Sapling Master Clock model.
- Accepts encryption protocols for enterprise network environments.

### Wired IP Clocks

- Interfaces with Sapling's Clock Monitor software which will allow the user to view and monitor all IP clocks in the system.
- Receives time data from one of five pre-programmed third party NTP servers (user changeable) for added reliability and redundancy. Alternatively, it can be set to receive the time data from an in-house NTP Server or from any Sapling Master Clock model.
- Select models available with Power-over-Ethernet (PoE) powering options.

### 900 MHz/2.4 GHz Wireless Clocks

- Each clock acts as a repeater for the time data signal
- Either 900 MHz or 2.4 GHz frequency hopping technology to ensure signal reliability
  - No FCC or special operating license required
- Receives time correction once every minute
- "BELL" and "FirE" messaging capabilities
- Capable of receiving pre-scheduled countdown command from the SMA Master Clock (optional SMA function)

### 900 MHz/2.4 GHz Wireless TalkBack Clocks

- Each clock acts as a repeater for the time data signal
- Either 900 MHz or 2.4 GHz frequency hopping technology to ensure signal reliability
  - No FCC or special operating license required
- Receives time correction once every minute
- "BELL" and "FirE" messaging capabilities
- Capable of receiving pre-scheduled countdown command from the SMA Master Clock (optional SMA function)

### GPS Clocks

- Obtains Time Data at minimal infrastructure cost to the user via GPS satellites.
- Same reliable system as used by commercial and military navigation systems.

## SLD Premium Large Digital Clock (V2.2)

### Specifications - All Clocks

**Case Material:**

Aluminum

**Case Color:**

Black

**Mounting:**

Wall or Double Mount

**Brightness:**

Four levels, adjustable

**Wired Signal Input Options:**

RS485, 2-Wire Digital Communication (24V model only), 59 minute correction, 58 minute correction, National Time/Rauland, Dukane, Once-a-Day Pulse

**Wired Signal Output:**

RS485, 59 minute correction, 58 minute correction, National Time/Rauland, Rauland Digital, Once-a-Day Pulse

**Temperature Range**

-40°F to 167°F (-40°C to +75°C)

**Ingress Protection Rating:**

IP 66 (Outdoor only)

**Voltage Input:**

22-28V (24 Volt Model)

85-130 VAC (115 Volt Model)

180-260 VAC (230 Volt Model)

48V Power over Ethernet (PoE Model)

**Power over Ethernet Class (PoE Model Only):**

Class 3

**Average Current Consumption  
(Maximum Brightness for Red Display):**

6.0" (15.2 cm) 4 and 6 Digit Clock:

250 mA @ 24 V

50 mA @ 115 VAC

25 mA @ 230 VAC

9.0" (22.9 cm) 4 and 6 Digit Clock:

340 mA @ 24 V

68 mA @ 115 VAC

34 mA @ 230 VAC

12.0" (30.5 cm) 4 and 6 Digit Clock:

775 mA @ 24 V

155 mA @ 115 VAC

78 mA @ 230 VAC

**Wi-Fi****Data Protocols:**

NTP, SNTP

**Network Protocols:**

IPv4

**Compatible Wi-Fi Communication Protocols:**

802.11 b/g/n (2.4GHz only)

**Compatible Security Protocols:**

WEP, WPA, WPA2-PSK, WPA2-Enterprise

**Enterprise Inner Authentication**

PEAPv0 (MSCHAPv2)

**Enterprise Inner Authentication**

EAP-FAST, EAP-TTLS, EAP-PEAP

**IP****Signal Input:**

(S)NTP via RJ45 connector

**Data Protocols:**

NTP, SNTP, Sapling Proprietary

**Network Protocols:**

IPv4

**Wireless/Wireless Talkback****Receiver Sensitivity:**

-103 dBm

**Transmitter Power Output:**

8 dBm

**Operating Frequency (900MHz model):**

915-928 MHz frequency-hopping technology

**Operating Frequency (2.4GHz model):**

2.4 GHz frequency-hopping technology

**Compliances****FCC:**

part 15 of the FCC Rules, Class B (DoC), IC ICES-003 Issue 6-2016

**CE:**

EN 55032, EN 55035, IEC 62236-4

**IK Rating:**

09

## SLD Premium Large Digital Clock (V2.2)

### Ordering Information:

SLD Premium Large Digital Clock: SLD-WXB-33S-XXXX-XYZ

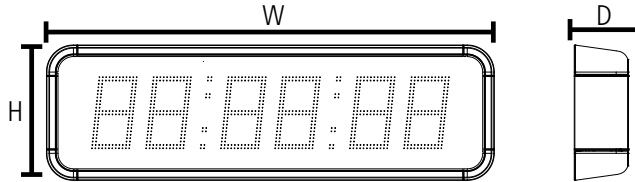
<b>Time Input:</b> D: Wired (2-wire, RS485, and Sync) L: Wireless (900MHz) G: Wireless (2.4GHz) T: TalkBack (900MHz) TG: TalkBack (2.4GHz) P: IP (via Network Cable) W: Wi-Fi S: GPS (Outdoor Only)	<b>Digit Size:</b> 060: 6.0" 090: 9.0" 120: 12.0"	<b>Indoor/Outdoor:</b> I: Indoor only O: Outdoor or Indoor	<b>Digit Color:</b> R: Red (Standard) G: Green* W: White* A: Amber	<b>Power Option:</b> 0: Power over Ethernet (PoE)* 12: 110VAC or 230VAC 4: 24VAC or 24VDC
<b>Number of Digits:</b> 4: 4 Digit 6: 6 Digit				

Double or Flag Mount Pole Kit: SLD-1XM-XXXX-XZ

<b>Number of Clocks:</b> D: Double-mount (two displays) F: Flag-mount (one display)	<b>Digit Size:</b> 060: 6" 090: 9" 120: 12"	<b>Pole Length:</b> S: Standard C: Custom
<b>Number of Digits:</b> 4: 4 Digit 6: 6 Digit		<b>Clock Orientation:</b> W: Wall-mount C: Ceiling-mount

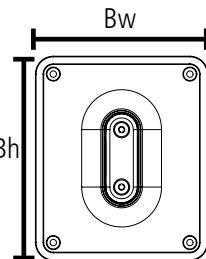
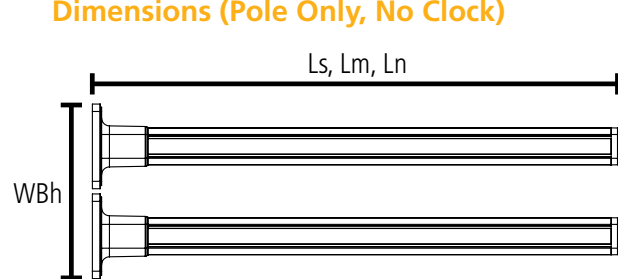
**\* Only available for certain models**  
Ask your dealer for more information.

### Dimensions (Surface Mount)

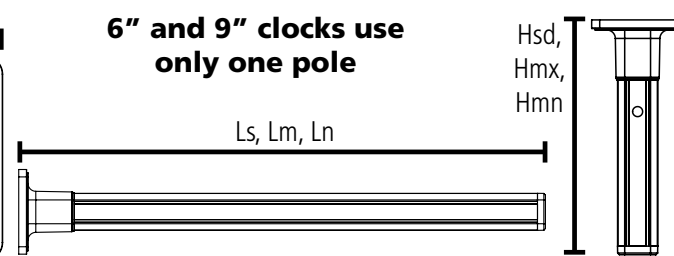


	4 Digits 6.0" (15.2cm)	4 Digits 9.0" (22.9cm)	4 Digits 12.0" (30.5cm)	6 Digits 6.0" (15.2cm)	6 Digits 9.0" (22.9cm)	6 Digits 12.0" (30.5cm)
Overall Width	W = 26.0" (66.0cm)	W = 36.7" (93.2cm)	W = 47.2" (119.8cm)	W = 36.4" (92.6cm)	W = 51.8" (131.6cm)	W = 67.2" (170.8cm)
Overall Height	H = 11.0" (28.0cm)	H = 15.2" (38.6cm)	H = 19.9" (50.5cm)	H = 11.0" (28.0cm)	H = 15.2" (38.6cm)	H = 19.9" (50.5cm)
Overall Depth	D = 4.06" (11.2cm)	D = 4.06" (11.2cm)	D = 4.06" (11.2cm)	D = 4.06" (11.2cm)	D = 4.06" (11.2cm)	D = 4.06" (11.2cm)

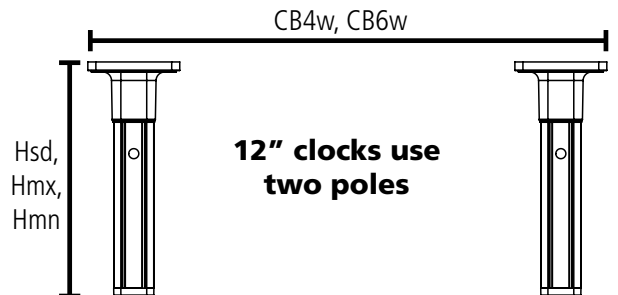
### Dimensions (Pole Only, No Clock)



**6" and 9" clocks use only one pole**



Base Height	Bh = 12.6" (32.0cm)
Base Width	Bw = 10.6" (27.0cm)
12" Wall overall	
Base Height	WBh = 26.0" (66.0cm)
12" Ceiling overall	
Base Width	
4 digits	CB4w = 51.1" (129.9cm)
12" Ceiling overall	
Base Width	
6 digits	CB6w = 71.1" (180.7cm)



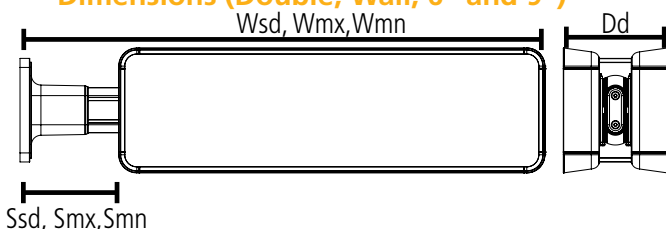
**12" clocks use two poles**

	4 Digits 6.0" (15.2cm)	4 Digits 9.0" (22.9cm)	4 Digits 12.0" (30.5cm)	6 Digits 6.0" (15.2cm)	6 Digits 9.0" (22.9cm)	6 Digits 12.0" (30.5cm)
<b>Wall Mount</b>						
Std Pole Length:	Ls = 37.1" (94.2cm)	Ls = 47.8" (121.4cm)	Ls = 58.4" (148.3cm)	Ls = 47.6" (120.8cm)	Ls = 63.0" (160.0cm)	Ls = 78.4" (199.1cm)
Max Pole Length:	Lm = 45.4" (115.2cm)	Lm = 56.1" (142.4cm)	Lm = 66.7" (169.4cm)	Lm = 55.8" (141.8cm)	Lm = 71.2" (181.9cm)	Lm = 86.7" (220.1cm)
Min Pole Length:	Ln = 33.4" (84.7cm)	Ln = 44.1" (111.9cm)	Ln = 54.7" (138.9cm)	Ln = 43.8" (111.3cm)	Ln = 59.2" (150.4cm)	Ln = 74.6" (189.6cm)
<b>Ceiling Mount</b>						
Std Pole Height:	Hsd = 21.1" (53.5cm)	Hsd = 23.1" (58.7cm)	Hsd = 32.1" (81.6cm)	Hsd = 21.1" (53.5cm)	Hsd = 23.1" (58.7cm)	Hsd = 32.1" (81.6cm)
Max Pole Height*: Hmx =	29.3" (74.5cm)	Hmx = 31.4" (79.7cm)	Hmx = 40.4" (102.6cm)	Hmx = 29.3" (74.5cm)	Hmx = 31.4" (79.7cm)	Hmx = 40.4" (102.6cm)
Min Pole Height*: Hmn =	17.3" (44.0cm)	Hmn = 19.4" (49.2cm)	Hmn = 28.4" (72.2cm)	Hmn = 17.3" (44.0cm)	Hmn = 19.4" (49.2cm)	Hmn = 28.4" (72.2cm)

\* Applies to custom length poles only.

## SLD Premium Large Digital Clock (V2.2)

### Dimensions (Double, Wall, 6" and 9")



Double Mount

Wall Overall

Width

Standard:

Maximum\*:

Minimum\*:

**4 Digits 6.0"**  
**(15.2cm)**

**4 Digits 9.0"**  
**(22.9cm)**

**4 Digits 12.0"**  
**(30.5cm)**

**6 Digits 6.0"**  
**(15.2cm)**

**6 Digits 9.0"**  
**(22.9cm)**

**6 Digits 12.0"**  
**(30.5cm)**

Wsd =38.0" (96.5cm) Wsd =48.7" (123.6cm) Wsd =59.2" (150.3cm) Wsd =48.4" (123.0cm) Wsd =63.8" (162.1cm) Wsd =79.3" (201.3cm)

Wmx=46.2" (117.4cm) Wmx=56.9" (144.6cm) Wmx=67.5" (171.3cm) Wmx=56.7" (144.0cm) Wmx=72.1" (183.1cm) Wmx=87.5" (222.3cm)

Wmn=34.2" (87.0cm) Wmn=44.9" (114.2cm) Wmn=55.5" (140.8cm) Wmn=44.7" (113.6cm) Wmn=60.1" (152.6cm) Wmn=75.5" (191.8cm)

Distance

between clock

and wall

Standard:

Maximum\*:

Minimum\*:

Ssd = 12.0" (30.5cm) Ssd = 12.0" (30.4cm) Ssd = 12.0" (30.4cm) Ssd = 12.0" (30.4cm) Ssd = 12.0" (30.5cm) Ssd = 12.0" (30.5cm)

Smx = 20.2" (51.4cm) Smx = 20.2" (51.4cm) Smx = 20.2" (51.4cm) Smx = 20.2" (51.4cm) Smx = 20.3" (51.5cm) Smx = 20.3" (51.5cm)

Smn = 8.3" (21.0cm) Smn = 8.3" (21.0cm) Smn = 8.2" (20.9cm) SSmn = 8.3" (21.0cm) Smn = 8.3" (21.0cm) Smn = 8.3" (21.0cm)

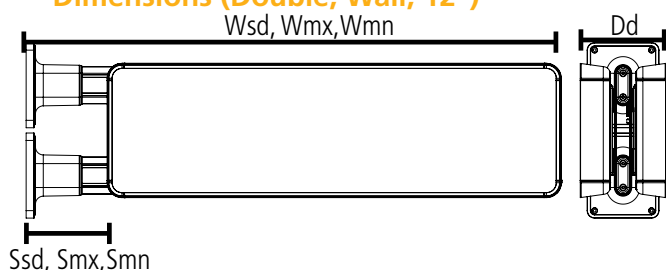
Double Mount

overall depth:

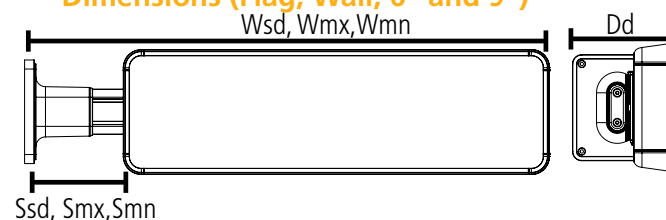
Dd =12.7" (32.2cm) Dd =12.7" (32.2cm) Dd =12.7" (32.2cm) Dd =12.7" (32.2cm) Dd =12.7" (32.2cm) Dd =12.7" (32.2cm)

\* Applies to custom length poles only.

### Dimensions (Double, Wall, 12")



### Dimensions (Flag, Wall, 6" and 9")



Flag Mount

Wall Overall

Width

Standard:

Maximum:

Minimum:

**4 Digits 6.0"**  
**(15.2cm)**

**4 Digits 9.0"**  
**(22.9cm)**

**4 Digits 12.0"**  
**(30.5cm)**

**6 Digits 6.0"**  
**(15.2cm)**

**6 Digits 9.0"**  
**(22.9cm)**

**6 Digits 12.0"**  
**(30.5cm)**

Wsd =38.0" (96.5cm) Wsd =48.7" (123.6cm) Wsd =59.2" (150.3cm) Wsd =48.4" (123.0cm) Wsd =63.8" (162.1cm) Wsd =79.3" (201.3cm)

Wmx=46.2" (117.4cm) Wmx=56.9" (144.6cm) Wmx=67.5" (171.3cm) Wmx=56.7" (144.0cm) Wmx=72.1" (183.1cm) Wmx=87.5" (222.3cm)

Wmn=34.2" (87.0cm) Wmn=44.9" (114.2cm) Wmn=55.5" (140.8cm) Wmn=44.7" (113.6cm) Wmn=60.1" (152.6cm) Wmn=75.5" (191.8cm)

Distance

between clock

and wall

Standard:

Maximum\*:

Minimum\*:

Ssd = 12.0" (30.5cm) Ssd = 12.0" (30.4cm) Ssd = 12.0" (30.4cm) Ssd = 12.0" (30.4cm) Ssd = 12.0" (30.5cm) Ssd = 12.0" (30.5cm)

Smx = 20.2" (51.4cm) Smx = 20.2" (51.4cm) Smx = 20.2" (51.4cm) Smx = 20.2" (51.4cm) Smx = 20.3" (51.5cm) Smx = 20.3" (51.5cm)

Smn = 8.3" (21.0cm) Smn = 8.3" (21.0cm) Smn = 8.2" (20.9cm) SSmn = 8.3" (21.0cm) Smn = 8.3" (21.0cm) Smn = 8.3" (21.0cm)

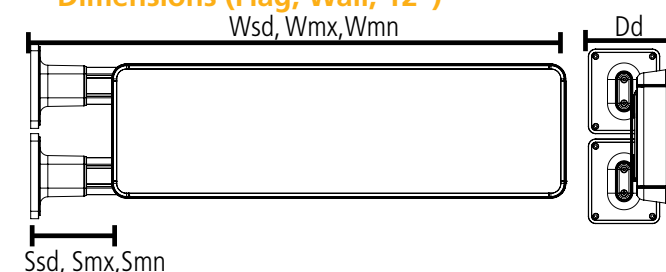
Flag Mount

overall depth:

Dd =12.7" (32.2cm) Dd =12.7" (32.2cm) Dd =12.7" (32.2cm) Dd =12.7" (32.2cm) Dd =12.7" (32.2cm) Dd =12.7" (32.2cm)

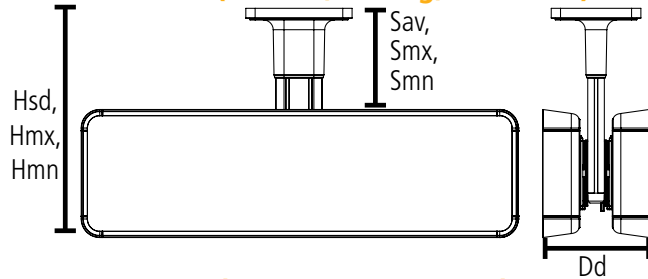
\* Applies to custom length poles only.

### Dimensions (Flag, Wall, 12")



## SLD Premium Large Digital Clock (V2.2)

### Dimensions (Double, Ceiling, 6" and 9")



Double Mount  
Wall Overall  
Width  
Standard:  
Maximum\*:  
Minimum\*:

**4 Digits 6.0"**  
**(15.2cm)**

Hsd =23.0" (58.4cm)  
Hmx=31.3" (79.4cm)  
Hmn=19.3" (49.0cm)

**4 Digits 9.0"**  
**(22.9cm)**

Hsd =27.2" (69.0cm)  
Hmx=35.5" (90.0cm)  
Hmn=23.5" (59.6cm)

**4 Digits 12.0"**  
**(30.5cm)**

Hsd =32.1" (81.6cm)  
Hmx=40.4" (102.6cm)  
Hmn=28.4" (72.2cm)

**6 Digits 6.0"**  
**(15.2cm)**

Hsd =23.0" (58.4cm)  
Hmx=31.3" (79.4cm)  
Hmn=19.3" (49.0cm)

**6 Digits 9.0"**  
**(22.9cm)**

Hsd =27.2" (69.0cm)  
Hmx=35.5" (90.0cm)  
Hmn=23.5" (59.6cm)

**6 Digits 12.0"**  
**(30.5cm)**

Hsd =32.2" (81.8cm)  
Hmx=40.5" (102.8cm)  
Hmn=28.5" (72.3cm)

Distance  
between clock  
and ceiling  
Standard:

Maximum\*:  
Minimum\*:

Ssd = 12.0" (30.4cm)  
Smx = 20.2" (51.4cm)  
Smn = 8.3" (21.0cm)

Ssd = 12.0" (30.4cm)  
Smx = 20.2" (51.4cm)  
Smn = 8.3" (21.0cm)

Ssd = 12.2" (31.1cm)  
Smx = 20.5" (52.3cm)  
Smn = 8.5" (21.8cm)

Ssd = 12.0" (30.4cm)  
Smx = 20.2" (51.4cm)  
Smn = 8.3" (21.0cm)

Ssd = 12.0" (30.4cm)  
Smx = 20.2" (51.4cm)  
Smn = 8.3" (21.0cm)

Ssd = 12.2" (31.1cm)  
Smx = 20.5" (52.3cm)  
Smn = 8.5" (21.8cm)

Double Mount  
overall depth:

Dd =12.7" (32.2cm)

Dd =12.7" (32.2cm)

Dd =12.7" (32.2cm)

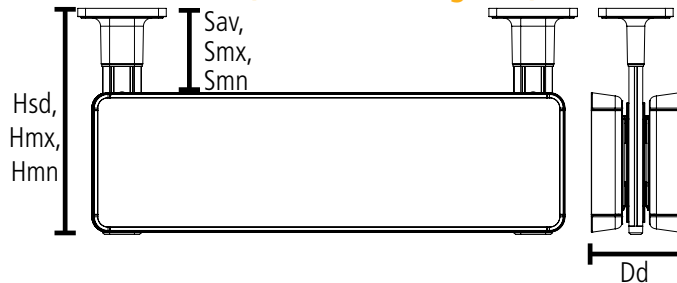
Dd =12.7" (32.2cm)

Dd =12.7" (32.2cm)

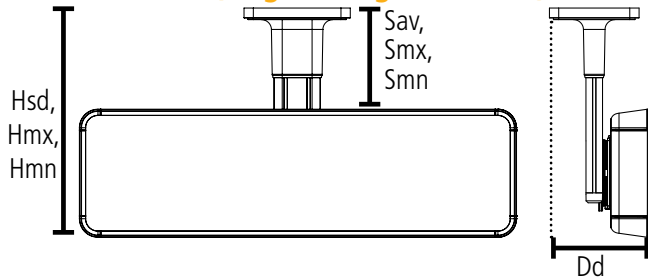
Dd =12.7" (32.2cm)

\* Applies to custom length poles only.

### Dimensions (Double, Ceiling, 12")



### Dimensions (Flag, Ceiling, 6" and 9")



Flag Mount  
Wall Overall  
Height  
Standard:  
Maximum\*:  
Minimum\*:

**4 Digits 6.0"**  
**(15.2cm)**

Hsd =23.0" (58.4cm)  
Hmx=31.3" (79.4cm)  
Hmn=19.3" (49.0cm)

**4 Digits 9.0"**  
**(22.9cm)**

Hsd =27.2" (69.0cm)  
Hmx=35.5" (90.0cm)  
Hmn=23.5" (59.6cm)

**4 Digits 12.0"**  
**(30.5cm)**

Hsd =32.1" (81.6cm)  
Hmx=40.4" (102.6cm)  
Hmn=28.4" (72.2cm)

**6 Digits 6.0"**  
**(15.2cm)**

Hsd =23.0" (58.4cm)  
Hmx=31.3" (79.4cm)  
Hmn=19.3" (49.0cm)

**6 Digits 9.0"**  
**(22.9cm)**

Hsd =27.2" (69.0cm)  
Hmx=35.5" (90.0cm)  
Hmn=23.5" (59.6cm)

**6 Digits 12.0"**  
**(30.5cm)**

Hsd =32.1" (81.6cm)  
Hmx=40.4" (102.6cm)  
Hmn=28.4" (72.2cm)

Distance  
between clock  
and ceiling  
Standard:

Maximum\*:  
Minimum\*:

Ssd = 12.0" (30.4cm)  
Smx = 20.2" (51.4cm)  
Smn = 8.3" (21.0cm)

Ssd = 12.0" (30.4cm)  
Smx = 20.2" (51.4cm)  
Smn = 8.3" (21.0cm)

Ssd = 12.2" (31.1cm)  
Smx = 20.5" (52.3cm)  
Smn = 8.5" (21.8cm)

Ssd = 12.0" (30.4cm)  
Smx = 20.2" (51.4cm)  
Smn = 8.3" (21.0cm)

Ssd = 12.0" (30.4cm)  
Smx = 20.2" (51.4cm)  
Smn = 8.3" (21.0cm)

Ssd = 12.2" (31.1cm)  
Smx = 20.5" (52.3cm)  
Smn = 8.5" (21.8cm)

Flag Mount  
overall depth:

Dd =12.7" (32.2cm)

Dd =12.7" (32.2cm)

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Dd =12.7" (32.2cm)

Dd =12.7" (32.2cm)

In 12" models, the bracket end cap is lower than the bottom of the clock. Hsd/Hmx/Hmn for 12" models refers to the distance between the lowest part of the end cap and highest point of the mounting pole base.

\* Applies to custom length poles only.

### Dimensions (Flag, Ceiling, 12")

