

## SLD Premium Large Digital Clock (V2.5)



### 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 (V2.5)

**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 (V2.5)

### 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 (V2.5)

## Ordering Information:

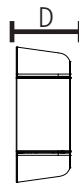
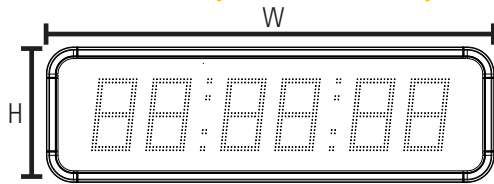
SLD Premium Large Digital Clock: SLD-XXB-33S-XXXX-XYZ

\* Double or Flag Mount Pole Kit for Indoor Use Only: SLD-1XM-XXXX-XZ

<b>Clock Configuration:</b> *W: Wi-Fi for configuration **P: IP Network Cable for configuration  *Available for all models with the exception of hard-wired IP clocks **Applicable only for hard-wired IP clocks	<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>Number of Digits:</b> 4: 4 Digit 6: 6 Digit	<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 Clocks:</b> D: Double-mount (two displays) F: Flag-mount (one display)	<b>Digit Size:</b> 060: 6" 090: 9" 120: 12"  <b>Number of Digits:</b> 4: 4 Digit 6: 6 Digit	<b>Pole Length:</b> S: Standard C: Custom  <b>Clock Orientation:</b> W: Wall-mount C: Ceiling-mount
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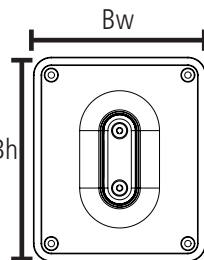
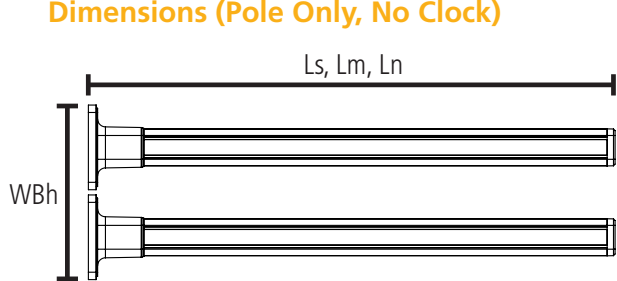
\* PoE is only available for certain models

## Dimensions (Surface Mount)

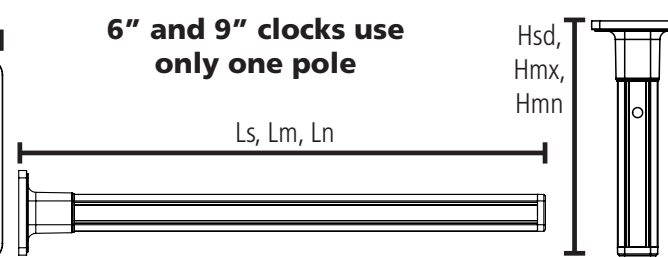


	<b>4 Digits 6.0"</b> <b>(15.2cm)</b>	<b>4 Digits 9.0"</b> <b>(22.9cm)</b>	<b>4 Digits 12.0"</b> <b>(30.5cm)</b>	<b>6 Digits 6.0"</b> <b>(15.2cm)</b>	<b>6 Digits 9.0"</b> <b>(22.9cm)</b>	<b>6 Digits 12.0"</b> <b>(30.5cm)</b>
<b>Overall Width</b>	W = 26.0" (66.0cm)	W = 36.7" (93.2cm)	W = 47.2" (119.8cm)	W = 36.4" (92.6cm)	W = 51.8" (131.6cm)	W = 67.3" (170.9cm)
<b>Overall Height</b>	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)
<b>Overall Depth</b>	D = 4.4" (11.2cm)	D = 4.4" (11.2cm)	D = 4.4" (11.2cm)	D = 4.4" (11.2cm)	D = 4.4" (11.2cm)	D = 4.4" (11.2cm)

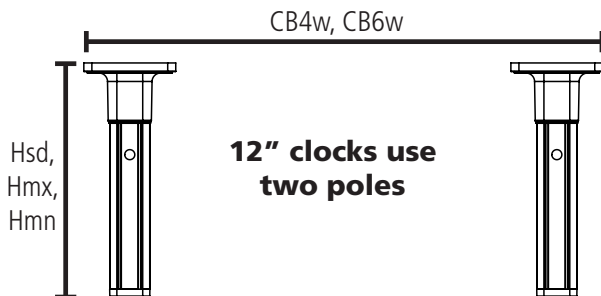
## Dimensions (Pole Only, No Clock)



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



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



**12" clocks use two poles**

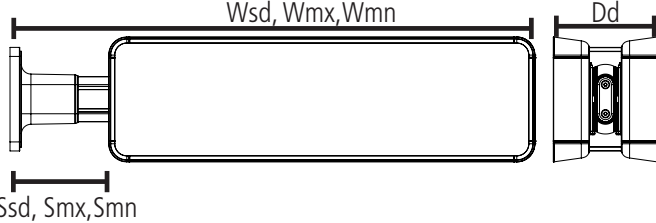
	<b>4 Digits 6.0"</b> <b>(15.2cm)</b>	<b>4 Digits 9.0"</b> <b>(22.9cm)</b>	<b>4 Digits 12.0"</b> <b>(30.5cm)</b>	<b>6 Digits 6.0"</b> <b>(15.2cm)</b>	<b>6 Digits 9.0"</b> <b>(22.9cm)</b>	<b>6 Digits 12.0"</b> <b>(30.5cm)</b>
<b>Wall Mount</b>						
<b>Std Pole Length:</b>	Ls = 37.1" (94.2cm)	Ls = 47.8" (121.4cm)	Ls = 58.4" (148.3cm)	Ls = 47.6" (120.8cm)	Ls = 63.0" (160.0cm)	Ls = 78.4" (199.1cm)
<b>Max Pole Length:</b>	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 = 86.6" (220.0cm)
<b>Min Pole Length:</b>	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>						
<b>Std Pole Height:</b>	Hsd = 21.1" (53.5cm)	Hsd = 23.1" (58.7cm)	Hsd = 32.2" (81.8cm)	Hsd = 21.1" (53.5cm)	Hsd = 23.1" (58.7cm)	Hsd = 32.2" (81.8cm)
<b>Max Pole Height*:</b>	Hmx = 29.3" (74.5cm)	Hmx = 31.4" (79.7cm)	Hmx = 40.5" (102.9cm)	Hmx = 29.3" (74.5cm)	Hmx = 31.4" (79.7cm)	Hmx = 40.5" (102.9cm)
<b>Min Pole Height*:</b>	Hmn = 17.3" (44.0cm)	Hmn = 19.4" (49.2cm)	Hmn = 28.5" (72.4cm)	Hmn = 17.3" (44.0cm)	Hmn = 19.4" (49.2cm)	Hmn = 28.5" (72.4cm)

\* Applies to custom length poles only.

\* All mounting poles are for indoor use only.

## SLD Premium Large Digital Clock (V2.5)

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



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

	<b>4 Digits 6.0"</b> <b>(15.2cm)</b>	<b>4 Digits 9.0"</b> <b>(22.9cm)</b>	<b>4 Digits 12.0"</b> <b>(30.5cm)</b>	<b>6 Digits 6.0"</b> <b>(15.2cm)</b>	<b>6 Digits 9.0"</b> <b>(22.9cm)</b>	<b>6 Digits 12.0"</b> <b>(30.5cm)</b>
Standard:	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)
Maximum*:	Wmx = 46.2" (117.4cm)	Wmx = 56.9" (144.6cm)	Wmx = 67.4" (171.2cm)	Wmx = 56.7" (144.0cm)	Wmx = 72.1" (183.1cm)	Wmx = 87.5" (222.3cm)
Minimum*:	Wmn = 34.2" (87.0cm)	Wmn = 44.9" (114.2cm)	Wmn = 55.4" (140.7cm)	Wmn = 44.7" (113.6cm)	Wmn = 60.1" (152.6cm)	Wmn = 75.5" (191.8cm)

Distance  
between clock  
and wall  
Standard:  
Maximum\*:  
Minimum\*:

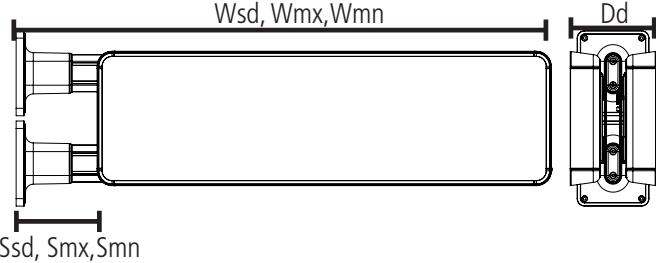
Standard:	Ssd = 12.0" (30.5cm)	Ssd = 12.0" (30.4cm)	Ssd = 12.0" (30.4cm)	Ssd = 12.0" (30.4cm)	Ssd = 12.0" (30.5cm)	Ssd = 12.0" (30.5cm)
Maximum*:	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)
Minimum*:	Smn = 8.3" (21.1cm)	Smn = 8.3" (21.1cm)	Smn = 8.3" (21.1cm)	SSmn = 8.3" (21.1cm)	Smn = 8.3" (21.1cm)	Smn = 8.3" (21.1cm)

Double Mount  
overall depth:

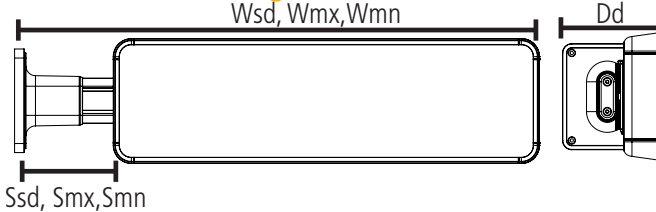
Double Mount overall depth:	Dd = 12.7" (32.2cm)	Dd = 12.7" (32.2cm)	Dd = 12.7" (32.2cm)	Dd = 12.7" (32.2cm)	Dd = 12.7" (32.2cm)	Dd = 12.7" (32.2cm)
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\* Applies to custom length poles only.  
\* All mounting poles are for indoor use only.

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



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



Flag Mount  
Wall Overall  
Width  
Standard:  
Maximum:  
Minimum:

	<b>4 Digits 6.0"</b> <b>(15.2cm)</b>	<b>4 Digits 9.0"</b> <b>(22.9cm)</b>	<b>4 Digits 12.0"</b> <b>(30.5cm)</b>	<b>6 Digits 6.0"</b> <b>(15.2cm)</b>	<b>6 Digits 9.0"</b> <b>(22.9cm)</b>	<b>6 Digits 12.0"</b> <b>(30.5cm)</b>
Standard:	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)
Maximum:	Wmx = 46.2" (117.4cm)	Wmx = 56.9" (144.6cm)	Wmx = 67.4" (171.2cm)	Wmx = 56.7" (144.0cm)	Wmx = 72.1" (183.1cm)	Wmx = 87.5" (222.3cm)
Minimum:	Wmn = 34.2" (87.0cm)	Wmn = 44.9" (114.2cm)	Wmn = 55.4" (140.7cm)	Wmn = 44.7" (113.6cm)	Wmn = 60.1" (152.6cm)	Wmn = 75.5" (191.8cm)

Distance  
between clock  
and wall  
Standard:  
Maximum\*:  
Minimum\*:

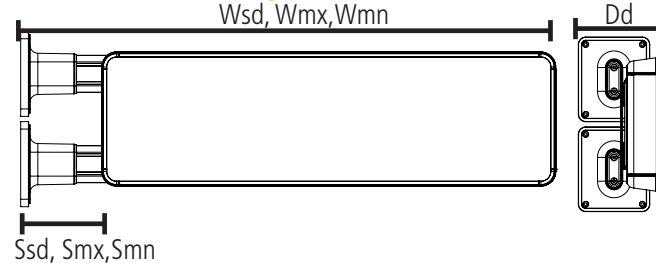
Standard:	Ssd = 12.0" (30.5cm)	Ssd = 12.0" (30.4cm)	Ssd = 12.0" (30.4cm)	Ssd = 12.0" (30.4cm)	Ssd = 12.0" (30.5cm)	Ssd = 12.0" (30.5cm)
Maximum*:	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)
Minimum*:	Smn = 8.3" (21.1cm)	Smn = 8.3" (21.1cm)	Smn = 8.3" (21.1cm)	SSmn = 8.3" (21.1cm)	Smn = 8.3" (21.1cm)	Smn = 8.3" (21.1cm)

Flag Mount  
overall depth:

Flag Mount overall depth:	Dd = 11.7" (29.7cm)	Dd = 11.7" (29.7cm)	Dd = 11.7" (29.7cm)	Dd = 11.7" (29.7cm)	Dd = 11.7" (29.7cm)	Dd = 11.7" (29.7cm)
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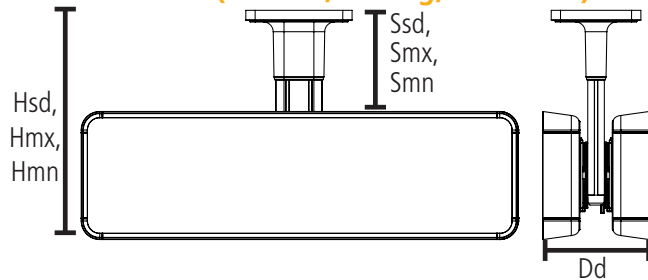
\* Applies to custom length poles only.  
\* All mounting poles are for indoor use only.

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



## SLD Premium Large Digital Clock (V2.5)

### Dimensions (Double, Ceiling, 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)
Standard:	Hsd = 23.0" (58.4cm)	Hsd = 27.2" (69.0cm)	Hsd = 32.2" (81.8cm)	Hsd = 23.0" (58.4cm)	Hsd = 27.2" (69.0cm)	Hsd = 32.2" (81.8cm)
Maximum*:	Hmx = 31.3" (79.4cm)	Hmx = 35.5" (90.0cm)	Hmx = 40.5" (102.8cm)	Hmx = 31.3" (79.4cm)	Hmx = 35.5" (90.0cm)	Hmx = 40.5" (102.8cm)
Minimum*:	Hmn = 19.3" (49.0cm)	Hmn = 23.5" (59.6cm)	Hmn = 28.5" (72.3cm)	Hmn = 19.3" (49.0cm)	Hmn = 23.5" (59.6cm)	Hmn = 28.5" (72.3cm)

Distance  
between clock  
and ceiling

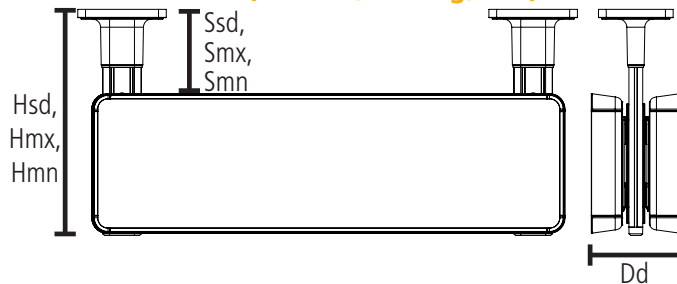
	4 Digits 6.0" (15.2cm)	4 Digits 9.0" (22.9cm)	4 Digits 12.0" (30.5cm)	6 Digits 6.0" (15.2cm)	6 Digits 9.0" (22.9cm)	6 Digits 12.0" (30.5cm)
Standard:	Ssd = 12.0" (30.5cm)	Ssd = 12.0" (30.5cm)	Ssd = 12.0" (30.5cm)	Ssd = 12.0" (30.5cm)	Ssd = 12.0" (30.5cm)	Ssd = 12.0" (30.5cm)
Maximum*:	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)
Minimum*:	Smn = 8.3" (21.1cm)	Smn = 8.3" (21.1cm)	Smn = 8.3" (21.1cm)	Smn = 8.3" (21.1cm)	Smn = 8.3" (21.1cm)	Smn = 8.3" (21.1cm)

Double Mount  
overall depth:

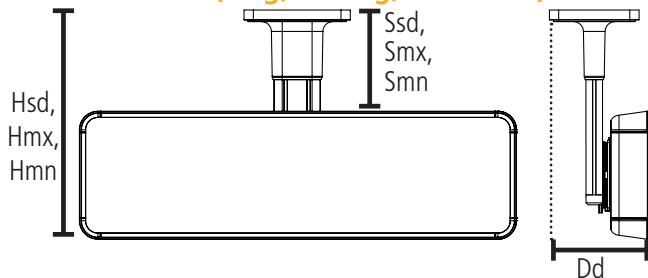
Dd = 12.7" (32.2cm)	Dd = 12.7" (32.2cm)	Dd = 12.7" (32.2cm)	Dd = 12.7" (32.2cm)	Dd = 12.7" (32.2cm)	Dd = 12.7" (32.2cm)
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\* Applies to custom length poles only.  
\* All mounting poles are for indoor use only.

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



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



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

	4 Digits 6.0" (15.2cm)	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)
Standard:	Hsd = 23.0" (58.4cm)	Hsd = 27.2" (69.0cm)	Hsd = 32.2" (81.8cm)	Hsd = 23.0" (58.4cm)	Hsd = 27.2" (69.0cm)	Hsd = 32.2" (81.8cm)
Maximum*:	Hmx = 31.3" (79.4cm)	Hmx = 35.5" (90.0cm)	Hmx = 40.5" (102.8cm)	Hmx = 31.3" (79.4cm)	Hmx = 35.5" (90.0cm)	Hmx = 40.5" (102.9cm)
Minimum*:	Hmn = 19.3" (49.0cm)	Hmn = 23.5" (59.6cm)	Hmn = 28.5" (72.4cm)	Hmn = 19.3" (49.0cm)	Hmn = 23.5" (59.6cm)	Hmn = 28.5" (72.4cm)

Distance  
between clock  
and ceiling

	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)
Standard:	Ssd = 12.0" (30.5cm)	Ssd = 12.0" (30.5cm)	Ssd = 12.0" (30.5cm)	Ssd = 12.0" (30.5cm)	Ssd = 12.0" (30.5cm)	Ssd = 12.0" (30.5cm)
Maximum*:	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)	Smx = 20.3" (51.6cm)
Minimum*:	Smn = 8.3" (21.1cm)	Smn = 8.3" (21.1cm)	Smn = 8.3" (21.1cm)	Smn = 8.3" (21.1cm)	Smn = 8.3" (21.1cm)	Smn = 8.3" (21.1cm)

Flag Mount  
overall depth:

Dd = 11.7" (29.7cm)	Dd = 11.7" (29.7cm)	Dd = 11.7" (29.7cm)	Dd = 11.7" (29.7cm)	Dd = 11.7" (29.7cm)	Dd = 11.7" (29.7cm)
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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.  
\* All mounting poles are for indoor use only.

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

