

SLD Premium Large Digital Clock (V2.4)



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

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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.

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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 (V2.4)

Ordering Information:

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

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

Clock Configuration:
*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

Time Input:
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)

Digit Size:
060: 6.0"
090: 9.0"
120: 12.0"

Number of Digits:
4: 4 Digit
6: 6 Digit

Indoor/
Outdoor:
I: Indoor only
O: Outdoor or Indoor

Digit Color:
R: Red (Standard)
G: Green*
W: White*
A: Amber

Power Option:
0: Power over Ethernet (PoE)*
12: 110VAC or 230VAC
4: 24VAC or 24VDC

Number of Clocks:
D: Double-mount (two displays)
F: Flag-mount (one display)

Digit Size:
060: 6"
090: 9"
120: 12"

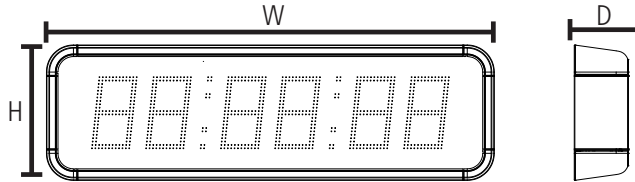
Number of Digits:
4: 4 Digit
6: 6 Digit

Pole Length:
S: Standard
C: Custom

Clock Orientation:
W: Wall-mount
C: Ceiling-mount

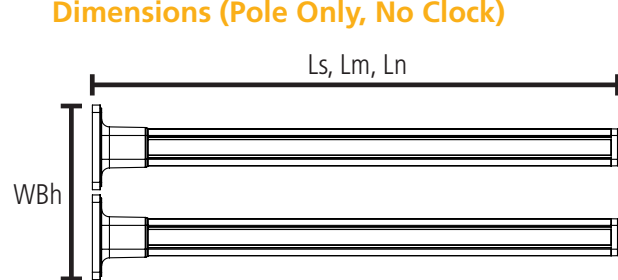
* Only available for certain models
Ask your dealer for more information.

Dimensions (Surface Mount)

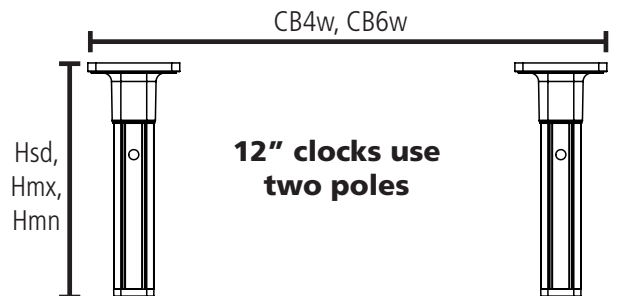


	4 Digits 6.0" (15.2cm)	4 Digits 9.0" (22.9cm)	4 Digits 12.0" (30.5cm)	6 Digits 6.0" (15.2cm)	6 Digits 9.0" (22.9cm)	6 Digits 12.0" (30.5cm)
Overall Width	W = 26.0" (66.0cm)	W = 36.7" (93.2cm)	W = 47.2" (119.8cm)	W = 36.4" (92.6cm)	W = 51.8" (131.6cm)	W = 67.3" (170.9cm)
Overall Height	H = 11.0" (28.0cm)	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 = 4.4" (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



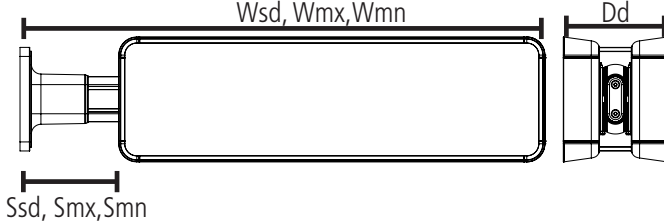
12" clocks use two poles

	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)
Base Height	Bh = 12.6" (32.0cm)	Bh = 12.6" (32.0cm)	Bh = 12.6" (32.0cm)	Bh = 12.6" (32.0cm)	Bh = 12.6" (32.0cm)	Bh = 12.6" (32.0cm)
Base Width	Bw = 10.6" (27.0cm)	Bw = 10.6" (27.0cm)	Bw = 10.6" (27.0cm)	Bw = 10.6" (27.0cm)	Bw = 10.6" (27.0cm)	Bw = 10.6" (27.0cm)
12" Wall overall	WBh = 26.0" (66.0cm)	WBh = 26.0" (66.0cm)	WBh = 26.0" (66.0cm)	WBh = 26.0" (66.0cm)	WBh = 26.0" (66.0cm)	WBh = 26.0" (66.0cm)
12" Ceiling overall	CB4w = 51.1" (129.9cm)	CB4w = 51.1" (129.9cm)	CB4w = 51.1" (129.9cm)	CB4w = 51.1" (129.9cm)	CB4w = 51.1" (129.9cm)	CB4w = 51.1" (129.9cm)
12" Ceiling overall	CB6w = 71.1" (180.7cm)	CB6w = 71.1" (180.7cm)	CB6w = 71.1" (180.7cm)	CB6w = 71.1" (180.7cm)	CB6w = 71.1" (180.7cm)	CB6w = 71.1" (180.7cm)
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 = 86.6" (220.0cm)
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)
Std Pole Height:	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)
Max Pole Height*:	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)
Min Pole Height*:	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.

SLD Premium Large Digital Clock (V2.4)

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 = 67.4" (171.2cm) 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 = 55.4" (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*:

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 = 20.3" (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)
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)

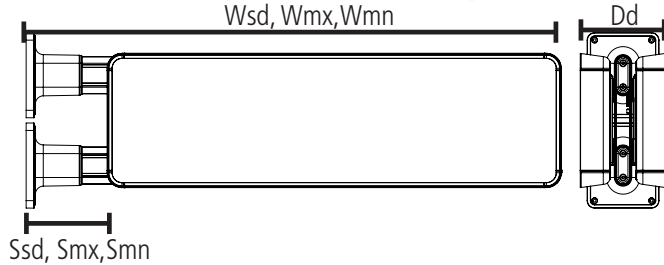
Double Mount

overall depth:

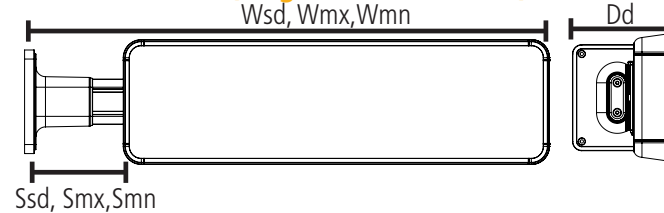
Dd = 12.7" (32.2cm) Dd = 12.7" (32.2cm) Dd = 12.7" (32.2cm) Dd = 12.7" (32.2cm) Dd = 12.7" (32.2cm) Dd = 12.7" (32.2cm)

* 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 = 67.4" (171.2cm) 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 = 55.4" (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*:

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 = 20.3" (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)
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)

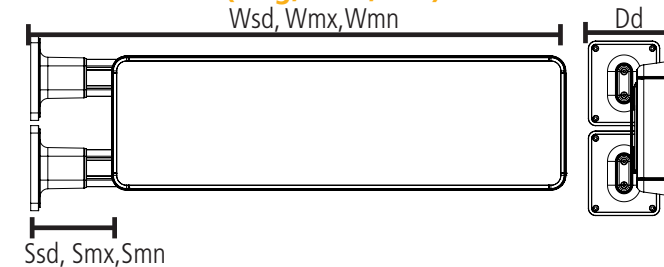
Flag Mount

overall depth:

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)

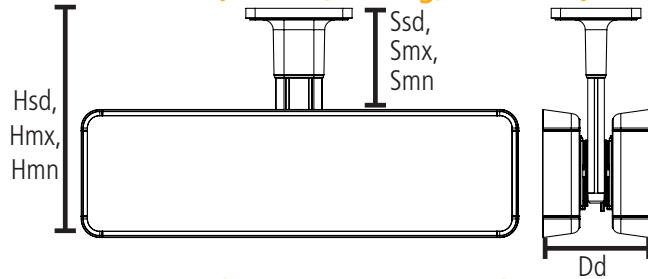
* Applies to custom length poles only.

Dimensions (Flag, Wall, 12")



SLD Premium Large Digital Clock (V2.4)

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

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" (30.5cm)
Smx = 20.3" (51.6cm)
Smn = 8.3" (21.1cm)

Ssd = 12.0" (30.5cm)
Smx = 20.3" (51.6cm)
Smn = 8.3" (21.1cm)

Ssd = 12.0" (30.5cm)
Smx = 20.3" (51.6cm)
Smn = 8.3" (21.1cm)

Ssd = 12.0" (30.5cm)
Smx = 20.3" (51.6cm)
Smn = 8.3" (21.1cm)

Ssd = 12.0" (30.5cm)
Smx = 20.3" (51.6cm)
Smn = 8.3" (21.1cm)

Ssd = 12.0" (30.5cm)
Smx = 20.3" (51.6cm)
Smn = 8.3" (21.1cm)

Double Mount
overall depth:

Dd = 12.7" (32.2cm)

Dd = 12.7" (32.2cm)

Dd = 12.7" (32.2cm)

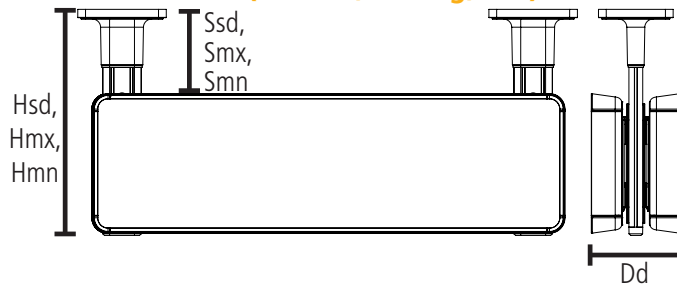
Dd = 12.7" (32.2cm)

Dd = 12.7" (32.2cm)

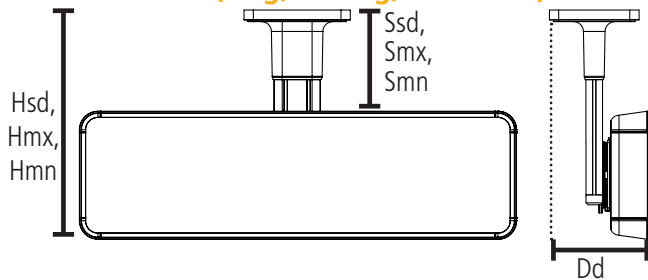
Dd = 12.7" (32.2cm)

* 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 = 32.2" (81.8cm)
Hmx = 40.5" (102.8cm)
Hmn = 28.5" (72.4cm)

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" (102.9cm)
Hmn = 28.5" (72.4cm)

Distance
between clock
and ceiling

Standard:
Maximum*:
Minimum*:

Ssd = 12.0" (30.5cm)
Smx = 20.3" (51.6cm)
Smn = 8.3" (21.1cm)

Ssd = 12.0" (30.5cm)
Smx = 20.3" (51.6cm)
Smn = 8.3" (21.1cm)

Ssd = 12.0" (30.5cm)
Smx = 20.3" (51.6cm)
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Smn = 8.3" (21.1cm)

Ssd = 12.0" (30.5cm)
Smx = 20.3" (51.6cm)
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)

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")

