

Bently Nevada 3500 Series Service Manual

3500/94M-02-00-02

1. Description

Manufacturer : Bently Nevada

3. Product Information

Manufacturer : Bently Nevada

Product No. :3500/94M-02-00-02

Product type : VGA Display Module

Made in U.S.A

Ordering Information

System Display

3500/94M-AA-BB-CC

Display Size and Mounting :02 = 10" display, 19" rack mount

KVM Extender and Display Router Box Cables : 00 = None

Agency Approval Option□02 = Multi (CSA/ATEX/IECEX) (only available for the 10" display)

Weight : 1.07 Kg

3500/94M VGA Display Unit

Inputs

Power

consumption 4.6 watts max.

High-speed

network

Monitor status, data and

values

RS232 port

(I/O) Touch controller data

Outputs

OK LED Indicates proper operation of

the module

TX/RX LED

Indicates communications

between other system

modules

VGA port (I/O) Analog red, green, blue and

sync signals to the display

Front Port 24 Vdc Power out, VGA signal

out, Touch commands in.

Environmental Limits

Operating

Temperature

-20°C to 65°C

(-22°F to 149°F)

Storage

Temperature

-40°C to 85°C

(-40°F to 185°F)

Humidity 95%, non-condensing

Compliance and Certifications

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

1. This device may not cause harmful

interference.

2. This device must accept any interference

received, including interference that may

cause undesired operation.

EMC

Standards

EN 61000-6-2

EN 61000-6-4

Directive

2014/30/EU

Electrical

Safety

Standards

CSA C22.2 61010-1

UL EN 61010-1

Directive

2014/35/EU

RoHS Directive

2011/65/EU

Physical Characteristics

3500/94M VGA Display Module

Dimensions

(height x

width x

depth)

241.3 mm x 24.4 mm x 241.8 mm

(9.5 in x 0.96 in x 9.52 in)

Weight 0.73 kg (1.6 lb.)

I/O Module

Dimensions

(height x

width x

depth)

241.3 mm x 24.4 mm x 99.1 mm

(9.50 in x 0.96 in x 3.90 in)

Weight 0.34 kg (0.75 lb.)

15" Advantech Display (FPM-8151)

Dimensions

(width x

height x

depth)

422 mm x 338 mm x 68 mm

16.61 in x 13.31 in x 2.68 in

Display

screen

(diagonal)

381 mm (15 in)

Weight 8.5 kg (18.75 lb)

Rack Space Requirements

Monitor Module

Rack space 1 full-height front slot

I/O Module

Rack space 1 full-height rear slot

Keyboard Video Monitor (KVM) Extender

Mounting Shelf top

Power input 12 Vdc and 5 Vdc

Agencies UL certification for North

America only

Temperature

range

0°C to 45°C

(32°F to 113°F)

Humidity 80%, non-condensing

Class I,

Division 2

The KVM Extender Receiver is

approved for Class I, Division

2 hazardous areas in North

America.

The KVM Extender Transmitter

is not certified for hazardous

usage and must be installed
in a safe area or enclosed in
an approved enclosure (such
as a purged housing or
cabinet).

NEMA 4X Not approved

Advantech 15" Display
(FPM-8151H)

Screen Size 15" diagonal

Type LCD with LED backlight

Industrial

hardened Yes

Mounting

Styles

19" Rack Mount

Panel Mount

Power 24 Vdc power supply
included. (Permissible
voltage range 12 Vdc to 24
Vdc)

Inrush Current: 2.62 A @ 24 V
(< 500 µs)

Operating Current: < 500 mA

IP65 Yes

Agencies CE, UL

Class 1, Div 2 Yes

Temperature 0 to 60°C (32°F to 140°F)

Operating Temperature.

The minimum temperature rating is
0°C (32°F) for the screen, front
bezel, and rear electronics. When
the screen or front bezel is exposed
to temperatures below 0°C (32°F) ,
a heated enclosure is required.

Humidity 95% RH

Touch

Interface

Resistive

Manufacturer Advantech

Dimensions (W
x H x D) inches

422 mm (16.61 in) x 338 mm
(13.31 in) x 68.0 mm (2.68 in)

Panel Cutout: 396 mm (15.59
in) X 296 mm (11.65 in)

Weight

Shipping

8.5 kg (18.74 lb)

Warranty Two years

Recommended for industrial use.

Not certified for hazardous
locations.

Ordering Considerations

Firmware, Software, and Hardware
Requirements

The 3500/94M requires the 3500/22 Transient
Data Interface (TDI) module. It also requires
these or newer versions of the following
firmware and software:

3500/94M Firmware 4.06, Rev. C
3500/22 Firmware (TDI) Rev 1.71
3500/01 Software (Rack
Config) Rev 5.6
3500/02 Software (Op
Display) Rev 2.21
3500/03 Software (Data
Acquisition) Rev 1.22

The 3500/94M requires the following hardware:

3500/22 TDI - Transient Data Interface

Rack Space Requirements

Monitor Module

Rack space 1 full-height front slot

I/O Module

Rack space 1 full-height rear slot

Keyboard Video Monitor (KVM) Extender

Mounting Shelf top

Power input 12 Vdc and 5 Vdc

Agencies UL certification for North

America only

Temperature

range

0°C to 45°C

(32°F to 113°F)

Humidity 80%, non-condensing

Class I,

Division 2

The KVM Extender Receiver is

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2 hazardous areas in North

America.

The KVM Extender Transmitter

is not certified for hazardous

usage and must be installed

in a safe area or enclosed in

an approved enclosure (such

as a purged housing or

cabinet).

NEMA 4X Not approved

Display Monitor Specifications

Advantech 10" Display

(ANA-D3510-100-A1)

Screen Size ☐ 10" diagonal

Type ☐ LCD with LED back light

Industrial hardened ☐ Yes

Mounting Styles ☐ Face Mount ☐

19" Rack Mount ☐

Panel Mount;

Independent Mount.

Power ☐ 24 Vdc power supply

included. (Permissible

voltage range 10 Vdc to 28

Vdc)

Inrush Current: 3.5 A @ 24 V

(< 500 μ s)

Operating Current: < 500 mA

Agencies ☐ CE, UL, CUL

IP54 ☐ Designed for.

Class I, Div 2 ☐ Yes

ATEX/IECEX ☐Yes

Temperature ☐-20°C to 65°C (-4°F to 149°F)

Operating Temperature.

Humidity 10% to 85% RH noncondensing

Touch

Interface

GFG Resistive Touch Screen

Manufacturer Advantech

Dimensions

(W x H x D)

387.4 mm (15.25 in) x 248.9 mm (9.8 in) x 49.0 mm (1.93 in)Panel Cutout: 342.9 mm (13.5 in) x 228.6 mm (9.0 in)

Weight Shipping

4.0 kg (8.78 lb)

Warranty One year

