Bently Nevada 3500 Series Service Manual

3500/94M-03-00-00

1. Description

Part Number: 3500/94M-03-00-00

3. Product Information

Part Number: 3500/94M-03-00-00

Model: VGA Display

Manufacturer: Bently Nevada

Condition: New & Original in Factory Packing

Factory Warranty: 12 Months

Ordering Information

Model 3500/94M System Display

Display Size & Mounting 03 =10" Display, Panel Mount (installation hardware included)

KVM Extender & Router Box Cables 00 =None

Agency Approval Option 00 =None

3500/94M VGA Display Unit

Inputs

Power

consumption 4.6 watts max.

High-speed

network

Monitor status, data and

values

RS232 port

(I/0) 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.)

10" Advantech Display (ANA-D3510-100-A1)

Dimensions

(height x

width x

depth)

249 mm x 389 mm x 48 mm

9.8 in x 15.3 in x 1.9 in

Touch

screen

(diagonal)

267 mm (10.5 in)

Weight 4.0 kg (8.78 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

0ºC to 45ºC

(32ºF to 113ºF)

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
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 µs)
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.
The minimum temperature rating is
-20ºC (-4°F) for the screen, front
bezel, and rear electronics. When
the screen or front bezel is exposed
to temperatures below -20ºC (-4°F),
a heated enclosure is required.
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
Recommended for industrial use.
Certified for hazardous locations.
The 10" housing is designed for IP54
ingress protection against dust and
water spray
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