



**All-Weather All-Terrain Fully Sealed IP67 (NEMA 6) Submersible
Extreme Operational Temperature Sunlight Readable LCD**



VarTech's 12.1" **All-Weather, All-Terrain**, Harsh-Duty LCD Display System is waterproof (fully submersible) and engineered to withstand the harshest environments and most demanding real world applications.

The sunlight readable VT121XA is equipped with VarTech's proprietary **Enhanced Light Transmission Technology (ELTT)** which allows for **true Sunlight Readability** and as well provides exceptional clarity and viewing angles. This advanced user friendly LCD display system provides extensive operational temperatures of -20° to +70°C (standard) or -40°C to 70°C (optional) and unprecedented video input capabilities from traditional VGA to up to **FOUR individual direct composite BNC video feeds with easy one-touch toggle select function between all feeds!**

FEATURES

- ◆ Completely Sealed IP67 (NEMA 6) Submersible Machined Aluminum Enclosure
- ◆ Harsh Duty LCD Panel w/ Optically Bonded Overlay
- ◆ True High Brightness Low-Power, high reliability **Solid State LED Backlighting**
- ◆ VarTech's advanced VTLED driver technology
- ◆ Ultra-Wide Viewing Angles
- ◆ Very High Contrast
- ◆ Extreme Wide Operational Temperatures
- ◆ Variable Power Supply, 9 to 36 VDC (Optional AC Power)
- ◆ Shock: MIL-S-901D*
- ◆ Vibration: MIL-STD-167*
- ◆ Environmental Design: MIL-STD-810F*
- ◆ EMI/EMC: FCC Class B* (optional 461F)
- ◆ Marine IEC 60529*
- ◆ Marine IEC 60945*
- ◆ One-Touch Toggle Between Multiple Video Feeds

** Designed to Meet*

CONTACT

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SPECIFICATIONS

Construction

IP67 (NEMA 6) Fully-Enclosed Submersible Machined
6061 T6 Aluminum Enclosure

Display Size – Viewable Area

12.1 inches

Panel Type

Harsh Duty LCD cell w/ Optically Bonded Protective
Overlay (VBOND)

Resolution

Standard: SVGA 800 x 600 Native
Optional: XGA 1024 x 768 Native

Brightness

True High Brightness:
Standard SVGA Type: 1000 nits (cd/m²)
Optional XGA Type: 1100 nits (cd/m²)
Low-power, high reliability **Solid State LED
Backlighting**

Pixel Pitch

0.3075 x 0.3075 (Optional 0.24 x 0.24 with XGA panel)

Response Time

25ms (Optional 33ms with XGA panel)

Backlight MTBF

65,000 hours

Dimming Ratio

5000:1 minimum

Backlight Driver

VarTech's advanced VTLED driver technology, the latest
in technology for driving solid state High Bright Light
Emitting Diodes (HBLEDs)

Viewing Envelope

Standard SVGA: Up/Dwn/L/R: 80°/60°/80°/80°
Optional XGA: Up/Dwn/L/R: 45°/55°/70°/70°

Contrast Ratio

Standard SVGA Type: 600:1
Optional XGA Type: 600:1

Video Input

- IP67 Sealed VGA Connector for Computer interface

OPTIONAL

- IP67 Sealed Single VGA Connector, Single Composite BNC Feed for NTSC/PAL, Optional Touch Interface
- IP67 Sealed Single VGA Connector, Dual Composite BNC Feed for NTSC/PAL, Optional Touch Interface
- IP67 Sealed Single Composite BNC Feed for NTSC/PAL
- IP67 Sealed Dual Separate Composite BNC Feed for NTSC/PAL
- IP67 Sealed Three Separate Composite BNC Feed for NTSC/PAL
- IP67 Sealed Four Separate Composite BNC Feed for NTSC/PAL
- Also available with MIL-DTL-38999 connectors

COMING SOON, CALL

- IP67 Sealed Dual VGA Connectors with/without Optional Touch Interface
- IP67 Sealed Dual VGA Connectors, Single Composite BNC Feed for NTSC/PAL, Optional Touch Interface
- IP67 Sealed Dual VGA Connectors, Dual Composite BNC Feed for NTSC/PAL, Optional Touch Interface

Video Controller

VarTech's Harsh Environment Controller Board – MTBF
in Excess of 260,000 hours

Max Power Requirements

32 watts, 40 watts w/heater

Electrical Input

Harsh Duty Variable Power Supply, 9 to 36 VDC, Wide
Range, Low Noise, Wide Operational Temperature
(Optional AC Power, Universal Input 85 to 264 VAC)

Wide Operational Temperatures

Standard -20° to +70°C (-4°F to 158°F)
Optional -40° to +70°C (-40°F to 158°F)

Storage Temperature

-40° to +75°C (-40°F to 167°F)

Dimensions

Width - 13.85"
Height - 9.6"
Depth - 2.78"

Humidity

Operating: 0 to 100%

Altitude

10,000 ft. (optional 45,000 ft.)

Shock

Designed to Meet MIL-S-901D

Vibration

Designed to Meet MIL-STD-167

Environment

Designed to Meet MIL-STD-810F

Marine

Designed to Meet IEC 60529

EMI / EMC

Designed to Meet FCC Class B (optional 461F)
Designed to Meet IEC 60945

Cables

Length - 3m (9'10") each
Available IP67 Connector (monitor end) Cables:
Power
Video - 15-pin D-Sub
Touch (optional) - Serial or USB
Direct Composite BNC Video Feed (optional)

Touch Screen (optional)

5-Wire, Durable, Resistive

Mounting

RAM Mounting - standard
Flush Mounting - optional
Panel Mounting - optional
Gimbal Mounting - optional
Handles (top or left & right) - optional
Pedestal Mounting - optional
VESA Mounting - optional

Electrical Protection

Internal Short Circuit Protection, Load Dump Protection,
Over Voltage Protection, Reverse Polarity Protection

Night-Vision Compliance (optional)

NVIS MIL-STD-3009 Class B Gen 3
(MIL-L-85762A)

Optional Connectors

Optional "Right Angle" Connectors

Overlay (optional and available only with non-touch)

Chemically Strengthened Bonded Overlay

Warranty

2 years

