



Improve Your Image

NEMA 4X Products



Monitors - Computers - Workstations - Panel PCs



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NEMA 4X - Fully Enclosed Workstations

- Water Proof • Dust Proof • Corrosion Resistant • Extreme Temperature Proof • Shock and Vibration Proof

VT150ESW & VT190ESW



Ideal for extreme environments, the VT150ESW & VT190ESW computer and its predecessors are currently in use in coal mines, rock quarries, oil rigs, chemical manufacturing plants, bakeries, and production floors of major food processing and packaging plants which require wash down equipment. VarTech Systems has custom engineered the VT150ESW & VT190ESW for extremely rugged conditions, both indoors and out:

Tough

These monitors are built to withstand the harshest conditions with a sealed, NEMA 4x-compliant, stainless steel enclosure. There are no external vents, which protects the VT150ESW & VT190ESW components from dust, dirt, moisture, chemicals oil, and other external contaminants.

Airtight

A sophisticated closed-loop thermal management system utilizes a bi-planar finned, anodized aluminum heat exchanger to keep internal operating temperatures low -- even during extreme ambient heat -- without using outside air. Shock and vibration isolation is provided at two levels - on the chassis and in the drive bay -- for protection in severe vibration environments.

Guarded

The add-in cards are protected by a patented card hold-down system, preventing card movement and intermittent failures. Cards are installed and removed individually for easy field upgrades.

Reliable

The VT150ESW & VT190ESW operate smoothly and efficiently in conditions where other computers would fail. Not merely an enclosure for any type of PC, its electronics and chassis were designed in tandem to provide a reliable and effective solution for harsh environments.

These monitors utilize top quality components from Intel, Sharp and other industry leaders. Each system is thoroughly inspected and tested before shipping to ensure trouble-free, long-term operation.

Flexible

The VT150ESW & VT190ESW have an open architecture, allowing easy maintenance and upgrades.

Configuration choices range from standard PC options to outdoor service and extreme temperature kits. A Class 1 explosion proof option is available.

The size and location of conduit fittings may be customized to meet specific connection and field installation requirements. NEMA 4x bulkhead connectors are available.

These monitors are compatible with Windows-based products, common industrial software, and a wide variety of other third-party solutions, enabling you to install, utilize, maintain and upgrade the business applications you already know and use.

Protected

A two-year limited warranty on the enclosure and a one-year limited warranty on the electronics are included.

SPECIFICATION

- Open architecture PC-based ATX motherboard
- Intel Pentium III 850 MHz
- 256MB SDRAM (extended memory optional)
- 40 GB (larger disks optional)
- 15" or 19" active matrix TFT LCD display
- 1024 x 768 XGA (15"), 1280 x 1024 SXGA (19")
- 6 PCI and 1 AGP
- Compact Flash Socket
- Onboard 10/100 BASE-T Ethernet (802.11x wireless option)
- Easy-open, lockable door
- NEMA 4x, 316 stainless steel
- 4 USB Vers 1.1 ports
- 1 RJ45 LAN port
- 1 DB-9 serial port
- 1 DB-15 VGA port
- 1 DB-25 parallel port
- Anodized aluminum heat sink
- Industrial silicone rubber keyboard with integrated pointing device
- Touch screen optional
- NEMA 4x, waterproof and dustproof
- -20°C to 55°C, IP67
- 20" H x 24" W x 16" D
- 98 lbs



NEMA 4X - Fully Enclosed Workstations

VT150WKS



15" Industrial NEMA 4X (IP66) Bulkhead, Pole, Pedestal Mounting

VT150WKE



15" Industrial NEMA 4X (IP66) Bulkhead or Pedestal Mounting

Features

- Fully Sealed, Air-Tight
- Bright Active Matrix TFT Display
- HD15(F), RCA (NTSC/PAL), 5 Pin Mini Din (S-Video)
- 450 nits Brightness
- VGA to SXGA Resolution
- 110 / 220 VAC Power
- Optional Touch Systems: Resistive and Capacitive
- Optional Power Supply: 12VDC or 24VDC
- Solid Stainless construction
- Water tight Rox Gland for cable exit & entry

Available Options

INTERNAL (inside the interface enclosure)

- No Computer, customer provided
- Single Board Computer - Call for details
- Industrial MicroBox PC
- Small form factor desktop

LOCAL (separate enclosure with 25 foot cable)

- Larger form factor industrial computer
- Desktop PCs

REMOTE (up to 3000' away with KVM extender)

- Desktop PCs up to 500' away with CAT5 KVM
- Desktop PC up to 3000' away with fiber optic KVM



10.4" and 15" NEMA 4X - Fully Enclosed Computers



VT104ESC & VT150ESC

- Resistive touch screen display (HMI)
- Industrial single-board computer
- NEMA 4x sealed enclosure
- Water proof and dust proof
- Stainless steel (316) construction
- Hard-anodized aluminum heat sink
- Closed loop thermal cooling for

Rugged

The VT104ESC & VT150ESC easily handle the punishment of harsh computing environments. They are proven tough in real world applications such as industrial production areas, outdoor kiosks and public terminals. The computer chassis has no external vents, so nothing can get under its skin, including dust, dirt, moisture, oil, chemicals or other harsh contaminants. A hard-anodized cast aluminum heat exchanger and internal heat management system keep them cool in environments where ambient temperatures approach 50°C -- without using outside air.

Compact

The relatively lightweight, small-footprint, rugged construction, and choice of conduit fitting locations, enable flexible mounting options for the computers, including on walls, stands or other industrial equipment. A touch screen provides freedom from a keyboard and mouse, although either (or both) of these may be added.

VT104ESC SPECIFICATIONS

- 300 MHz AMD Geode processor
- 256MB SDRAM
- 40 GB (80 GB option)
- 10.4" active matrix TFT LCD display
- 800 x 600 SVGA
- 18 bit per pixel
- PC/104
- Supports CompactFlash™ card
- 10/100 BASE-T Ethernet (IEEE 802.3u) (802.11x wireless option)
- USB 1.1 Type A
- RJ45 Ethernet
- Serial/Parallel
- One additional USB (Type A or B)
- Supports APM for LCD power down
- 316 stainless steel sealed
- Anodized aluminum heat sink
- 6" Handles
- NEMA 4x, waterproof and dustproof
- 40°C, IP67
- 11" H x 13" W x 6" D
- 16 lbs

VT150ESC SPECIFICATIONS

- 800 MHz VIA C3 processor
- 256MB SDRAM (512MB option)
- 40 GB (80 GB option)
- 15" active matrix TFT LCD display
- 1024 x 768 XGA
- 18 bit per pixel
- PC/104-Plus
- Supports CompactFlash™ card
- Type I/II and DiskOnChip
- 10/100 BASE-T Ethernet (IEEE 802.3u) (802.11x wireless option)
- USB 1.1 Type A
- RJ45 Ethernet
- Serial/Parallel
- Three additional USB (Type A or B)
- Additional 10/100 BASE-T Ethernet
- Supports APM for LCD power down
- 316 stainless steel sealed
- Anodized aluminum heat sink
- 8" Handles
- NEMA 4x, waterproof and dustproof
- 45°C (extended ranges available), IP67
- 16" H x 18" W x 7" D
- 30 lbs



NEMA 4X - Fully Enclosed High Brightness Computer

- Water Proof • Dust Proof • Corrosion Resistant • Extreme Temperature Proof • Shock and Vibration Proof

VT150ESCHBU

FEATURES



- 1500 cd/m2 (nits) high brightness display for sunlight readability
- Resistive touch screen display (HMI)
- NEMA 4x sealed enclosure
- Water proof and dust proof
- 316 Stainless steel construction
- Easy latch access
- Hard-anodized aluminum heat sink
- Closed loop thermal cooling for high heat environments
- Medium footprint
- Flexible mounting options
- Keyboard/mouse optional
- MIL-STD-901-D
- MIL-STD-167-1
- MIL-STD-461

SPECIFICATION

- Open architecture PC-based ATX motherboard
- 1500 nit High Bright display
- Intel Pentium III 850 MHz
- 256MB SDRAM (extended memory optional)
- 40 GB (larger disks optional)
- 15" active matrix TFT LCD display
- 1024 x 768 XGA (15"),
- 6 PCI and 1 AGP
- Compact Flash Socket
- Onboard 10/100 BASE-T Ethernet (802.11x wireless option)
- Easy-open, lockable door
- NEMA 4x, 316 stainless steel
- 4 USB Vers 1.1 ports
- 1 RJ45 LAN port
- 1 DB-9 serial port
- 1 DB-15 VGA port
- 1 DB-25 parallel port
- Anodized aluminum heat sink
- Resistive Touch screen
- NEMA 4x, waterproof and dustproof
- -20°C to 55°C, IP67
- 20" H x 18" W x 11" D
- 1x wireless optional

High Brightness

The VT150ESCHBU fully enclosed NEMA 4X computer is complete with a luminance level of 1500 nits.

Military Tested

This monitor has passed the harshest military test according to guidelines set by MIL-STD-901-D, MIL-STD-167-1 and MIL-STD-461.

Durable

The VT150ESCHBU can easily handle the punishment of harsh computing environments. They are proven tough in real world applications such as industrial production areas, outdoor kiosks and public terminals.

The monitor chassis has no external vents, so nothing can get under its skin, including dust, dirt, moisture, oil, chemicals or other harsh contaminants.

A hard-anodized cast aluminum heat exchanger and internal heat management system keep it cool in environments where ambient temperatures approach 50°C -- without using outside air.

Easy Access

These monitors are designed with easy maintenance and upgrades in mind. A latched panel provides simple access. Their moderate weight and dimensions allow for flexible mounting options. A touch screen provides freedom from a keyboard and mouse, although either (or both) of these may be added.



17" and 19" NEMA 4X - Fully Enclosed Computers

VT170ESC - VT170ESX - VT190ESC

- Resistive touch screen display (HMI)
- NEMA 4x sealed enclosure
- Water proof and dust proof
- Stainless steel construction
- Easy latch access
- Hard-anodized aluminum heat sink
- Closed loop thermal cooling for high heat environments
- Medium footprint
- Flexible mounting options
- Keyboard/mouse optional



Durable

The VT170ESC, VT170ESX & VT190ESC easily handle the punishment of harsh computing environments. They are proven tough in real world applications such as industrial production areas, outdoor kiosks and public terminals.

The monitor chassis has no external vents, so nothing can get under its skin, including dust, dirt, moisture, oil, chemicals or other harsh contaminants.

A hard-anodized cast aluminum heat exchanger and internal heat management system keep it cool in environments where ambient temperatures approach 50°C -- without using outside air.

Easy Access

These monitors are designed with easy maintenance and upgrades in mind. A latched panel provides simple access. Their moderate weight and dimensions allow for flexible mounting options. A touch screen provides freedom from a keyboard and mouse, although either (or both) of these may be added.

VT170ESC SPECIFICATIONS

- 1.6 GHz Intel Pentium M
- 256MB DDR SDRAM (512MB option)
- 40 GB (80 GB option)
- 17" active matrix
- 1280 x 1024 SXGA
- PCI optional
- 10/100 BASE-T Ethernet (IEEE 802.3u) (802.11x wireless option)
- Supports APM for LCD power down
- 316 stainless steel sealed
- USB 2.0
- Parallel
- Serial
- IEEE 1394 - Firewire
- Anodized aluminum heat sink
- 12" handles
- NEMA 4X, waterproof and dustproof
- 40°C, IP67
- 18" H x 20" W x 11" D
- 53 lbs

VT190ESC SPECIFICATIONS

- 1.6 GHz Intel Pentium M
- 256MB DDR SDRAM (512MB option)
- 40 GB (80 GB option)
- 19" active matrix 1280 x 1024 SXGA
- 10/100 BASE-T Ethernet (IEEE 802.3u) (802.11x wireless option)
- USB 2.0
- Parallel
- Serial
- IEEE 1394 - Firewire
- PCI optional
- Supports APM for LCD power down
- 316 stainless steel sealed
- Anodized aluminum heat sink
- 12" handles
- NEMA 4X, waterproof and dustproof
- 40°C, IP67
- 18" H x 20" W x 11" D
- 53 lbs



10.4" and 15" NEMA 4X - Fully Enclosed Monitors

VT104ES & VT150ES



FEATURES

- Resistive touch screen display (HMI)
- NEMA 4x sealed enclosure
- Water proof and dust proof
- Stainless steel construction
- Small footprint
- Flexible mounting options
- Direct or KVM cabling to host

Compact and Economical

The VT104ES & VT150ES are rugged, low-cost displays and touch screen HMIs designed to connect remote PCs to the production floor. With their moderate weight and very small footprint, the monitors are ideal for applications where both space and budget are limited.

Rugged

These models are fully enclosed in sealed, stainless steel, NEMA 4x cases. The chassis has no external vents, so nothing can get under its skin, including weather, dust, dirt, moisture, oil, chemicals or other harsh contaminants. A hard-anodized cast aluminum heat exchanger and internal heat management system keep it cool in environments where ambient temperatures approach 50°C -- without using outside air.

With its lightweight yet rugged construction, and either pre-cabled or bulkhead connectors, the VT104ES and VT150ES are easily mounted on walls, stands, arms or other industrial equipment. With optional brackets, it conforms to VESA flat panel mounting standards.

VT150WESS



- Resistive or Capacitive touch screen display (HMI)
- NEMA 4x sealed enclosure
- Water proof and dust proof
- Stainless steel construction
- Small footprint
- Flexible mounting options
- Direct or KVM cabling to host



17" and 19" NEMA 4X - Fully Enclosed Monitors

VT170ES & VT190ES



FEATURES

- Resistive touch screen display (HMI)
- NEMA 4x sealed enclosure
- Water proof and dust proof
- Stainless steel construction
- Mid-size footprint
- Flexible mounting options
- Direct or KVM cabling to host

Slim and Economical

With its moderate weight and small footprint, the VT170ES and VT190ES are ideal for applications where both space and budget are limited.

Durable

These monitors are fully enclosed in sealed, NEMA 4x, easy-open, stainless steel cases. The chassis has no external vents, so nothing can get under its skin, including weather, dust, dirt, moisture, oil, chemicals or other harsh contaminants. A hard-anodized cast aluminum heat exchanger and internal heat management system keep it cool in environments where ambient temperatures approach 50°C -- without using outside air.

With its lightweight yet rugged construction, and either pre-cabled or bulkhead connectors, the VT170ES and VT190ES are easily mounted on walls, stands, arms or other industrial equipment.

With optional brackets, it conforms to VESA flat panel mounting standards.

VT170ES

VT190ES

Video	17" active matrix 1280 x 1024 SXGA	19" active matrix 1280 x 1024 SXGA
Standard Connections	VGA, Serial, Power	VGA, Serial, Power
Enclosure	316 stainless steel sealed Anodized aluminum heat sink 12" handles	316 stainless steel sealed Anodized aluminum heat sink 12" handles
Environmental/Thermal	NEMA 4X, waterproof and dustproof, 50C, IP67	
Dimensions	CALL	18" H x 20" W x 10.5" D
Weight	CALL	51 lbs.

VESA Mount Monitors for Extreme Environments.



6.4" - 12.1" NEMA 4X - Panel Mounts

VT064PSS - VT084PSS - VT084PSSXGA - VT104PSS - VT104PSSVGA - VT121PSS



- Bright Active Matrix TFT Display
- HD15(F), RCA (NTSC/PAL), Mini Din, S-video
- VGA to SVGA Resolution*
- Anti-Reflective Protective Faceplate
- Stainless Steel Bezel
- Stainless Steel **Rear** Chassis
- HD15, RCA, 5-Pin Mini Din
- NEMA 4X Panel Mount
- 12VDC Power Supply
- Optional Touch Systems: Resistive and Capacitive
- Optional Power Supply: 110/220 VAC
- High Contrast Ratio

**3/4" Solid
304 Stainless
Steel Sealed
Front Bezel**

**Complete With
unique "Memory
Foam" gasket
material that
when partially
squeezed will
maintain its
shape memory
retention with
quick spring back
for superior
sealing
protection.**

	Screen Size	Resolution	Pixel Formats
VT064PSS	6.4"	VGA	640 x 480
VT084PSS	8.4"	VGA	640 x 480
VT084PSSXGA	8.4"	VGA - XGA	640 x 480, 800 x 600, 1024 x 768
VT0104PSS	10.4"	VGA - SVGA	640 x 480, 800 x 600
VT104PSSXGA	10.4"	VGA - XGA	640 x 480, 800 x 600, 1024 x 768
VT121PSS	12.1"	VGA - SVGA	640 x 480, 800 x 600

	Standard Brightness	Optional High Brightness	Optional Optical Bonding
6.4"	400 nits	700 cd/m2	Yes
8.4"	400 nits	1400 cd/m2	Yes
10.4"	400 nits	850 cd/m2	Yes
12.1"	300 nits	1700 cd/m2	Yes



15" - 21.3" NEMA 4X - Panel Mounts

VT150PSS - VT170PSS - VT190PSS - VT201PSS - VT213PSS



- Bright Active Matrix TFT Display
- HD15(F), RCA (NTSC/PAL), Mini Din, S-video
- VGA to SVGA Resolution*
- Anti-Reflective Protective Faceplate
- Stainless Steel Bezel
- Stainless Steel **Rear** Chassis
- HD15, RCA, 5-Pin Mini Din
- NEMA 4X Panel Mount
- 12VDC Power Supply
- Optional Touch Systems: Resistive and Capacitive
- Optional Power Supply: 110/220 VAC
- High Contrast Ratio

**3/4" Solid
304 Stainless
Steel Sealed
Front Bezel**

**Complete With
unique "Memory
Foam" gasket
material that
when partially
squeezed will
maintain its
shape memory
retention with
quick spring back
for superior
sealing
protection.**

	Screen Size	Resolution	Pixel Format
VT150PSS	15"	VGA - SXGA	640 x 480, 800 x 600, 1024 x 768, 1280 x 1024
VT170PSS	17"	VGA - SXGA	640 x 480, 800 x 600, 1024 x 768, 1280 x 1024
VT190PSS	19"	VGA - SXGA	640 x 480, 800 x 600, 1024 x 768, 1280 x 1024
VT201PSS	20.1"	VGA - UXGA	640 x 480, 800 x 600, 1024 x 768, 1280 x 1024, 1600 x 1200
VT213PSS	21.3"	VGA - UXGA	640 x 480, 800 x 600, 1024 x 768, 1280 x 1024, 1600 x 1200

	Standard Brightness	Optional High Brightness	Optional Optical Bonding
15.0"	450 nits	1800 cd/m2	Yes
17.0"	250 nits	1200 cd/m2	Yes
19.0"	250 nits	850 cd/m2	Yes
20.1"	250 nits	780 cd/m2	Yes
21.3"	250 nits	750 cd/m2	Yes