



Solutions for Demanding Applications

## 19" Purged Enclosed Computer for Class 2 Div 2 Environments

The VT902ESC is a NEMA 4X HMI system designed to meet Class 2, Div 2 protection. The purge system uses an automatic pressure switch to automatically trigger alarms in case of pressure loss.

### Durable

The VT902ESC 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 VT902ESC 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 aluminum heat exchanger and internal heat management system keep it cool in environments where ambient temperatures approach 60°C -- without using outside air.

### Easy Access

VT902ESC are designed with easy maintenance and up-grades in mind. A latched panel provides simple access to this NEMA 4X HMI system. With its moderate weight and dimensions, VT902ESC enables flexible mounting options.



## FEATURES

- ◆ Designed to Meet Class 2 Division 2
- ◆ Purged pressure switch
- ◆ 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
- ◆ Non-Incendive Keyboard/mouse optional
- ◆ LCD screen shielded by a Tempered Glass Protective Overlay

## SPECIFICATIONS

### Display

19", 1280 x 1024 SXGA, LCD screen shielded by a Tempered Glass Protective Overlay

### Processor

T4500 2.30 GHz 800MHz FSB Intel Dual Core

### BIOS

Phoenix-Award 16Mbit (SPI) with RPL/PXE LAN Boot ROM, SmartView and customer CMOS backup

### O/S

Windows XP Professional (optional Windows Embedded Standard or Windows 7)

### System Memory

2 DDR2 533/667 SDRAM sockets, 2 GB standard, 4 GB optional (~3.25 recognizable)

### Graphics

Intel® GME965 GMCH Gen 4 Integrated graphics engine

### LAN

Integrated Intel Gigabit PCI Express LAN Chip

### Hard Drive

320 GB Fast Access SATA drive

### Power Input

12 VDC Optional: 12/24 VDC AC by available brick, 6 to 32V DC

### Power Connector

Standard Power Inlet (IEC320 C14)

### Power Consumption

40W max

### Dimensions

20" W x 18" D x 11" H

### PCI Expansion Slots

Optional PCI Express, Optional 1 or 2 32 bit PCI Slots

### DVD Drive (E-IDE / ATAPI)

DVD-R, DVD+R, DVD-RW, DVD+RW, DVD-R DL, DVD+R9, CD-R, CD-RW

### I/O Ports

**Back** - 3 RS-232 COM port (Optional RS-422\485 port), 2 LAN ports, 4 USB 2.0, 2 Audio jacks

**Front** - 2 USB 2.0

### Firewire Ports

2 x IEEE 1394a

### Temperature

Operational: 41°F to 140°F/5°C to 60°C, Storage: -40°F to 149°F/-40°C to 65°C

### System Monitoring and Management

Watchdog timer, CPU voltage monitoring, Keyboard power on, Timer power on, System power management, AC power failure recovery

### Humidity

Operational: 10 ~ 80% (relative; non condensing)

### Construction

316 stainless steel  
Anodized aluminum heat sink  
10" handles  
IP67 - NEMA 4X, waterproof and dustproof  
*Enclosure Only:*  
18" H x 20" W x 11" D, 66 lb  
*Purge System Only:*  
12" (H) x 8" (W) x 7.25" (D), 10 lb

## CONTACT

### HEADQUARTERS

11529 Sun Belt Ct.  
Baton Rouge, Louisiana 70809

**Phone** 800.223.8050

**International**

001.225.298.0300

**Fax** 225.297.2440

### E-mail

sales@vartechsystems.com

### Website

www.vartechsystems.com

**\*\*Purge System w/Pressure Switch Next Page\*\***

## OPTIONS

- Purge System Mounting to Side (L/R), Top or Bottom
- Windows Embedded Standard or Windows 7
- 12/24 VDC AC by available brick, 6 to 32V DC
- Optional PCI Express, Optional 1 or 2 32 bit PCI Slots
- Optional RS-422\485 port



Purge System w/  
Pressure Switch

## Z Type Purge System w/ Pressure Switch (Class 2, Div 2 Protection)

This Rapid Exchange® enclosure pressurization that operates on a supply of compressed instrument air or inert gas. It regulates and monitors pressure within sealed (protected) enclosure(s), in order to prevent combustible dust accumulation or remove and prevent flammable gas or vapor accumulations. In Class II areas, the system maintains a "safe" (1.0") pressure. This process reduces the hazardous (classified) area rating within the enclosure(s), in accordance with the NEC - NFPA 70, Article 500, NFPA 496 and ISA 12.4.



### MATERIAL SPEC

#### Regulator Body

Zinc w/ Enamel Finish

#### Regulator Handle & Bowl

Polycarbonate

#### Rapid Exchange Gauge

ABS Plastic

#### Tube Fittings & Valves

316 SS Forged Body

#### Tubing

316 SS 1/4" .035 Welded

#### System Nameplates

Silk screened Lexan® & SS

#### Fastener Hardware

Zinc Plated and Stainless Steel

#### Mounting Plate

316 14 Ga #3 Brush SS

#### EXP Pressure Switch Body

Anodized Cast Alum.

#### Enclosure Warning

#### Nameplate

Silkscreened SS

Lexan® is a registered trademark of the General Electric Company.

### Specifications

#### Shipping Weight

10 lb

#### Operating Temp. Range

40F to 120F

#### Supply Pressure Range

5 - 120 psi

#### Supply requirements

Clean air or inert gas

#### Safe Pressure Setpoint

.25"/1" @ safe pressure

#### Safe Pressure Flow Rate

0.1 - 3.5 SCFH - Enclosure integrity determines actual flow rate

#### System Supply Port

1/4" FPT

#### Enclosure Supply Fitting

1/4" tube fitting

#### Enclosure Reference Fitting

1/4" tube fitting

#### EPCU Conduit Port Size

1/2" FPT

#### EPCU Power Requirements

120 VAC 15amps

#### Dimensions

12" (H) x 8" (W) x 7.25" (D)  
Height & Width dimensions reflect mounting plate measurements. Depth dimensions reflects overall measurement of system, including components.

#### Mounting

Side (L/R), Top or Bottom

### OPERATION

In accordance with system instructions, start-up requires air supply to be engaged and enclosure power to be de-energized. In Class II areas, all dust must be removed from the enclosure(s). The enclosure protection vent (if used) must be tested and enclosure(s) must be sealed. The enclosure pressure control regulator is then used to set a safe reading on the enclosure pressure gauge. In Class II areas, power can be energized when safe pressure is stable. Loss of safe pressure in Class I or II areas requires immediate attention, unless power is de-energized. WPS style systems include an explosion proof differential pressure switch with form "C" contacts for audible or visual alarm systems.