



Solutions for Demanding Applications

## 17" Purged Enclosed Computer for Class 1 Div 1 Environments



The VT750ESC is a NEMA 4X HMI system designed to meet Class 1, Div 1 protection. The purge system uses an automatic pressure switch to automatically trigger alarms in case of pressure loss.

### Durable

The VT750ESC 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 VT750ESC 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

VT750ESC is 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, VT750ESC enables flexible mounting options.

## FEATURES

- ◆ Designed to Meet Class 1 Division 1
- ◆ 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
- ◆ Flexible mounting options
- ◆ Optional Non-Incendive Keyboard/Mouse

\*Supports all VESA standard video formats

## SPECIFICATIONS

### Display

17", 1280 x 1024 SXGA

### 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

### Enclosure

Lockable door  
NEMA 4x, 316 stainless steel  
Anodized aluminum heat sink

### Keyboard/Mouse (Optional)

Industrial silicone rubber keyboard with integrated pointing device

### Environmental/Thermal

NEMA 4x  
waterproof and dust proof

### Temperature

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

### Humidity

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

### Enclosure

Easy-open, lockable door  
NEMA 4x, 316 stainless steel  
Anodized aluminum heat sink

### Construction

316 stainless steel  
Anodized aluminum heat sink  
10" handles  
IP66 - NEMA 4X, waterproof and dustproof

### Enclosure Only:

18" H x 20" W x 11" D

66 lb

### Purge Kit Only:

20" (H) x 11" (W) x 10.5" (D), 38 lb

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

## CONTACT

### HEADQUARTERS

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## 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
- Keyboard and Mouse



## Purge System w/ Pressure Switch (Class 1, Div 1 Protection)



Purge System w/  
Pressure Switch

This Rapid Exchange® purging system 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. The system accomplishes four air exchanges and maintains a "safe" (0.25") pressure. The system includes an Electrical Power Control Unit (EPCU) that monitors system operation and controls enclosure power. All start-up requirements must be satisfied before the EPCU will energize power to the enclosure(s). These processes reduce 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**

Polycarbonate

**Enclosure Pressure Gauge**

Alum. w/ Enamel Finish

**Tube Fittings**

316 SS Forged Body

**Tubing**

316 SS 1/4" .035 Welded

**System Nameplates**

Silk screened Lexan® & SS

**Fastener Hardware**

SS Screws & Bolts

**Mounting Plate**

316 14 Ga #3 Brush SS

**EPCU Enclosed Body**

Bead Blast Cast Alum.

**Enclosure Warning**

**Nameplate**

Silkscreened SS

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

### Specifications

**Weight**

38lb

**Temp. Range**

-20F to 120F

**Supply Pressure Range**

5 - 120 psi

**Supply requirements**

Clean air or inert gas

**Safe Pressure Setpoint**

.25" / 1.0"

**Safe Pressure Flow Rate**

0.1 - 3.5 SCFH - Enclosure integrity determines actual flow rate

**Safe Pressure Flow Rate**

4 SCFM / 240 SCFH - With regulator set to 60 psi min. during exchange

**Exchange Time**

As required - Time required to exchange 4 volumes within the enclosure(s), based on actual measured safe pressure flow rate or 5 minutes, whichever is greater

**System Supply Port**

1/4" tube fitting

**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 60Hz 10

**EPCU Power Consumption**

500mA

**Dimensions**

20" (H) x 11" (W) x 10.5" (D)  
Height & Width dimensions reflect mounting plate measurements. Depth dimensions reflects overall easurement 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 EPCU power to be energized. The system must perform an exchange cycle (determined by the safe pressure flow rate — 5 minutes minimum) before power can be energized. Loss of safe pressure causes the EPCU to de-energize power to the protected enclosure(s). The purge system includes an explosion proof differential pressure switch with form "C" contacts for audible or visual alarm systems.

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