

HT3 Series

Purge protected large format monitors and panel computers for operator interface applications in Division 1 and Division 2 hazardous areas.

The purge protected hazardous area ToughStation has a large format high definition display for providing high viewability in operator interface applications. The fully sealed enclosure is available in NEMA 4 powder coated aluminum or 316 stainless steel with NEMA 4X protection. Mounting options include pedestal mount or VESA mount (32" only), for easy installation into the work environment.

The purge system enables safe operations within Div 1 and Div 2 environments by preventing the accumulation of flammable gases and ignitable dust inside the enclosure. Using a purge and pressurization system is standard practice for the explosion protection of energized HMI terminals within a hazardous area.



Standard in black powder coated aluminum or stainless steel. Custom colored powder coating available.



Standard Features:

- Industrial-Grade LED back-lit LCD.
- Touchscreen Interface: USB or serial connections
- Mounting Configurations: VESA, and pedestal mount
- Optical Bonding (VBOND): adhering a cover glass, protective overlay, or touchscreen to the front surface of the LCD using an optical-grade silicone to increase solar reflectivity and ruggedness.
- Enclosure Construction: fully sealed, NEMA 4X (IP66) 316 stainless steel or NEMA 4 (IP65) powder coated aluminum enclosure
- I/O Connection Type: CID1 conduit hub required. CID2 conduit hub or optional sealed Roxtec glands with captive cables
- Power Input: 20-30 VDC or 100-250 VAC internal power supply

- Available Touchscreens: PCAP
- Operating Temperature: -10° to 60°C (Extreme Temperature Package available depending on size. Please inquire.)
- Relative Humidity: ≤ 0% to ≤ 90%
- Altitude: 10,000 ft MSL
- 2-year warranty

Computer Features:

- Embedded Computer
- Fanless Design: solid-state components
- Operating System: Windows 10 Professional 64-bit (standard)

Available LCD Size and Specification Chart:

Size	Enclosure Dimensions	Brightness	Resolution	Touchscreen*	Viewing Angle	Contrast	Aspect Ratio	Approx. Weight w/ Type X Purge**	Approx. Weight w/ Type Z Purge**
32.0"	33.23" × 20.28" × 7.63"	500 nits 1500 nits	FHD 1920×1080 FHD 1920×1080	PCAP	89°/89°/89°/89° 89°/89°/89°/89°	3000:1 4000:1	16:9	≈ 110 Lbs SS / ≈ 100 Lbs Al	≈ 85 Lbs SS / ≈ 75 Lbs Al
43.0"	41.38" × 25" × 7.63"	500 nits 1500 nits	FHD 1920×1080 FHD 1920×1080	N/A	89°/89°/89°/89° 89°/89°/89°/89°	3000:1 4000:1	16:9	≈ 141 Lbs SS / ≈ 126.9 Lbs Al	≈ 116 Lbs SS / ≈ 102 Lbs Al

Sunlight readable LCD

* PCAP - projective capacitive touch

** Weight may differ based on overall configuration

Type X or Type Z Purge Systems Available:

Type X and type Z purge systems are available for VarTech's rugged monitors and panel computers. Type X purge systems reduce the classification of the protected monitor or panel computer enclosure from Div 1/Zone 1 to non-hazardous while type Z purge systems reduce the classification from Div 2/Zone 2 to non-hazardous.



Type X Purge

This purge system reduces the hazard of Division 1/Zone 1 to unclassified within the protected enclosure, enabling use of general purpose, non-hazardous area equipment in a Class I and Class II, Division 1 (or Zone 1) location. *Only available on stainless steel enclosure.



This purge system reduces the hazard of Division 2/Zone 2 to unclassified within the protected enclosure, enabling use of general purpose, non-hazardous area equipment in a Class I, Division 2 (Zone 2) location.

LCD Controller Board Specifications:

Option	Resolution	Available Video I/O Ports	Horizontal/Vertical Scan
A	Up to 1920 x 1200, 8-Bit	1 x HDMI, 1 x Display Port, 1 x VGA	60 Hz up to 1920 x 1200
B	Up to 1920 x 1200, 10-bit	1 x HDMI, 1 x DVI, 1 x VGA 1 x Composite (PAL/NTSC)	60 Hz up to 1920 x 1200

Non-standard controller boards and I/O ports available depending on panel size. Please inquire.

Standard Motherboard Specifications:

Option	Processor	Memory	Storage Drive	Operating System	Available I/O Ports
C	Intel Atom E3845	Up to 8 GB	1 x SATA-300 1 x CFAST	Win 7: 32/64-bit, Win 10: 32/64-bit	2 x RS-232/422/485 3 x USB 2.0 1 x LAN
D	Intel J1900 Quad-Core	Up to 8 GB	1 x SATA-300 1 x CFAST	Win 7: 32/64-bit, Win 10: 32/64-bit	2 x RS-232/422/485 3 x USB 2.0 1 x LAN
E	i5-7300U	Up to 16 GB	1 x SATA-300 1 x mSATA/SIM	Win 10: 64-bit	2 x RS-232/422/485 4 x USB 3.0 2 x LAN
F	Celeron G3900TE, i3-6100TE, i5-6500TE, i7-6700TE	Up to 32 GB	1 x SATA-600	Win 10: 64-bit	1 x RS-232/422/485 3 x USB 3.0 1 x USB 2.0 2 x LAN

Non-standard motherboards and processors available depending on panel size. Please inquire. Motherboard selection may affect operational temperature

Available Options:

- Wide temperature LCD panel
- Harsh duty video controller board or motherboard/SSD/RAM
- Extreme temperature: -20° to 70° C (-4° to 158° F) available for select builds. Please inquire.
- Up to 2 x user accessible sealed rear peripheral compartments

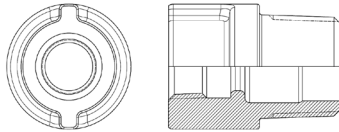
Available Computer Options:

- System memory: 4 GB to 32 GB (depending on the motherboard)
- Storage: HDD, SSD, removable drives, various capacities, multiple drives
- Operating System: Windows 10 Professional – 32 & 64-bit, Windows 10 Enterprise, Windows 7 – 32 & 64-bit, Linux (select versions of Linux supported)
- 1 x VGA, 1 x HDMI
- Additional and/or alternate I/O ports available. Please contact your sales representative.

All available options are subject to mechanical design limitations. Please inquire. Environmental Functional Upgrade Packages available. See below.

Standard I/O Connectors: bottom or rear exit connectors

Sealing hub with gasket and locknut: used in our general purpose and hazardous area workstations

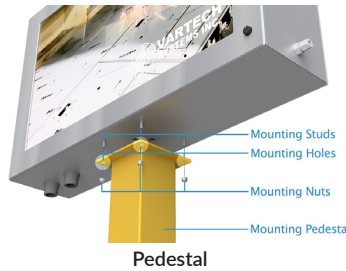
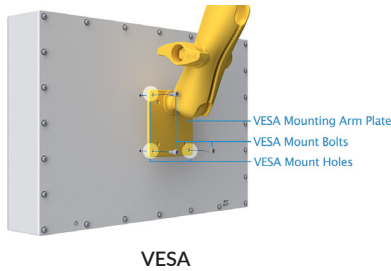


Environmental Functional Upgrade Packages:

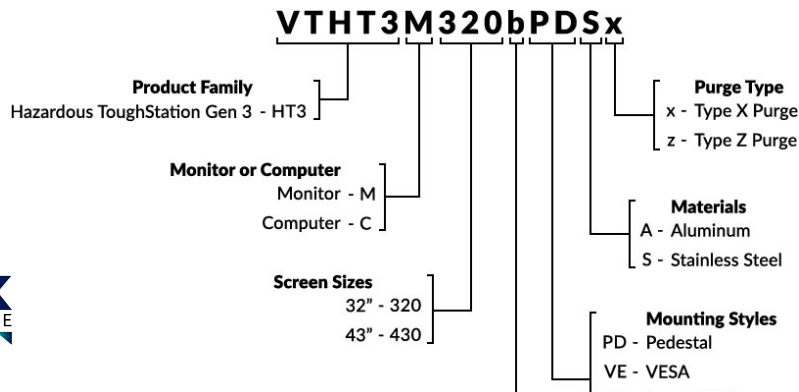
VarTech's Environmental Functional Upgrade Packages allow for custom COTS solutions using standard feature sets.

High Bright Sunlight Readable Package
<ul style="list-style-type: none"> • High luminance LED backlights • Proprietary film stack • Optical bonding (VBOND) • Anti-reflective coatings • Brightness level 1500 nits

Mounting Option Examples:



Purge Protected ToughStation Core Model Number Breakdown:



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Over 30 Years of Rugged HMI and Industrial Computer Manufacturing Experience



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