

VarTech's fully sealed monitors and computers, non-incendive and certified for use in hazardous area environments deemed Class 1 Division 2.

ToughStation hazardous area monitors and computers are NEMA 4X (IP66) protected from dirt and moisture, and incapable of causing ignition of flammable gas, vapors, or dust under normal working conditions in hazardous area environments.

The rugged gasket-sealed stainless steel enclosure offers a fanless, low power consumption industrial-grade design for reliable Hazloc HMI visibility and operations throughout a variety of harsh environments.

Certifications:

This VarTech product has been tested, examined, by a third party independent testing laboratory and found to comply with the applicable requirements of UL60950-1/CSA C22.2 No. 6095-1, Second Edition, Rev. March 27, 2007: Information Technology Equipment – Safety – Part 1: General Requirements ANSI/ISA 12.12.01-2013, 3 June 2013: Non-incendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Division 1 and 2 Hazardous (Classified) Locations CSA C22.2 No. 213-M1987, First Edition, Reaffirmed 1999: Non-incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations.

Standard Features:

- Industrial-grade LED back-lit LCD
- Power input: 12/24 VDC or 110/220 VAC internal power supply
- Construction/environmental design: bezel - CID2 certified, fully sealed, NEMA 4X (IP66) protection, 316 stainless steel enclosure with anodized aluminum rear cover. Available with heat sink, if required.
- Mounting configurations: panel with studs, console, and 100 mm VESA pattern
- Available touchscreens: resistive, and PCAP
- Operating temperature: -20° to 60° C (Extreme Temperature Package available depending on size. Please inquire.)

- Relative humidity: ≤ 0% to ≤ 95% (depending on mechanical build)
- Altitude: 10,000 ft MSL
- 2-year warranty

Computer Features:

- Embedded computer
- Operating system: Windows 10 Professional 64-bit (standard)
- 2 × 10/100/1000 Mbps LAN



Available in stainless steel

Available LCD Size and Specification Chart:

Size	VESA Mount Dimensions	Panel/Console Mount Dimensions	Brightness	Resolution	Touchscreen*	Viewing Angle	Contrast	Aspect Ratio	Power Consumption (Calculated at 12 V DC)	Approx. Weight**
10.4"	12 × 9.75 × 3.28	13.98 × 11.73 × 3.28	400 nits 1000 nits ☀	SVGA 800 × 600 XGA 1024 × 768	Res/PCAP	80°/80°/80°/80° 80°/80°/65°/65°	1000:1 700:1	4:3	≈ 11 W ≈ 24 W	≈ 13.9 Lbs
15"	15.38 × 12.38 × 3.19	17.36 × 14.36 × 3.19	400 nits 1500 nits ☀	XGA 1024 × 768 XGA 1024 × 768	Res/PCAP	80°/80°/80°/80° 80°/80°/60°/80°	600:1 800:1	4:3	≈ 12 W ≈ 47 W	≈ 18.15 Lbs
17"	17 × 14.5 × 3.21	18.98 × 16.48 × 3.21	350 nits 1000 nits ☀	SXGA 1280 × 1024 SXGA 1280 × 1024	Res/PCAP	80°/80°/60°/80° 80°/80°/60°/80°	800:1 1000:1	5:4	≈ 25 W ≈ 62 W	≈ 18.9 Lbs
19"	18.5 × 15.38 × 3.19	20.48 × 17.36 × 3.19	350 nits 1600 nits ☀	SXGA 1280 × 1024 SXGA 1280 × 1024	Res/PCAP	85°/85°/80°/80° 85°/85°/80°/80°	1000:1 1000:1	5:4	≈ 20 W ≈ 60 W	≈ 20.9 Lbs
21.5" wide	22.02 × 14 × 3.53	23.99 × 15.98 × 3.53	300 nits	FHD 1920 × 1080	Res/PCAP	89°/89°/89°/89°	5000:1	16:9	≈ 24 W	≈ 26 Lbs
24" wide	24.43 × 15.52 × 2.90	26.41 × 17.5 × 2.9	300 nits	FHD 1920 × 1080	PCAP	89°/89°/89°/89°	5000:1	16:9	≈ 9 W	≈ 28 Lbs

☀ Sunlight readable LCD

* Res - resistive touch, PCAP - projective capacitive touch

** Weight may differ based on overall configuration

Certification Model Numbers:

Sizes	10.4"	15"	17"	19"	21.5"	24"
	VTPC100VS	VTPC500VS	VTPC700VS	VTPC900VS	VTPC2100VS	VTPC2400VS

LCD Controller Board Specifications:

Option	Resolution	Available Video I/O Ports	Horizontal/Vertical Scan
A*	Up to 1440 x 900, 8-bit	1 x DVI, 1 x VGA	60 Hz up to 1440 x 900
B*	Up to 1600 x 1200, 8-bit	1 x DVI, 1 x VGA, 1 x Composite (PAL/NTSC)	60 Hz up to 1600 x 1200
C	Up to 1920 x 1200, 8-Bit	1 x HDMI, 1 x Display Port, 1 x VGA	60 Hz up to 1920 x 1200
D	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.
* Not compatible with FHD screen resolution

Standard Motherboard Specifications:

Option	Processor	Memory	Storage Drive	Operating System	Available I/O Ports
E	Intel Atom E3845	Up to 8 GB	1 x SATA-300 1 x CFAST	Win 7: 32/64-bit, Win 10: 32/64-bit	1 x RS-232/422/485 2 x USB 2.0 2 x LAN
F	Intel Celeron J1900	Up to 8 GB	1 x SATA-300 1 x CFAST	Win 7: 32/64-bit, Win 10: 32/64-bit	1 x RS-232/422/485 2 x USB 2.0 2 x LAN
G	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
H	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:

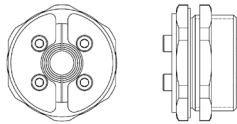
- Optical bonding (VBOND): adhering a cover glass, protective overlay, or touchscreen to the front surface of the LCD using an optical-grade silicone to increase solar reflectivity and ruggedness.
- Wide temperature LCD panel
- Harsh duty video controller board or motherboard/SSD/RAM
- Button for input select

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
- Environmental Functional Upgrade Packages available. See below.

Standard I/O Connectors: bottom or rear exit connectors

Gland rated up to IP69K: standard sealed captive I/O cables for our hazardous area series

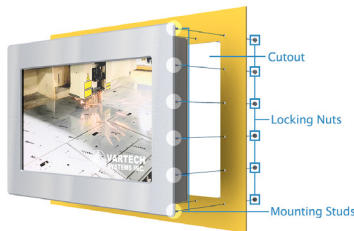


Environmental Functional Upgrade Packages:

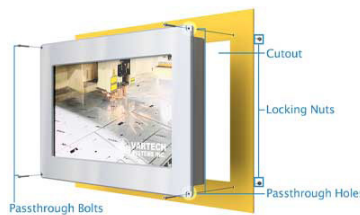
VarTech's Environmental Functional Upgrade Packages allow for custom COTS solutions using standard feature sets.

High Bright Sunlight Readable Package
<ul style="list-style-type: none"> • High luminance LED backlights • Proprietary optical film stack • Optical bonding of protective window or touchscreen to LCD • Anti-reflective coatings • Brightness levels ranging from 700 nits to 1500 nits (depending on screen size)

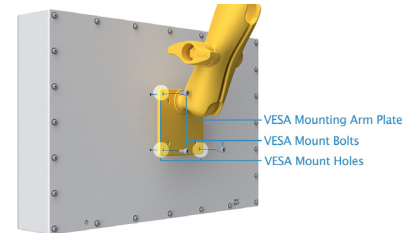
Mounting Option Examples:



Panel with studs



Console



VESA

Over 30 Years of Rugged HMI and Industrial Computer Manufacturing Experience

