

Hardware Integration: Industrial Workstations

Rugged, Secure, and Customized to Meet Your Requirements



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HARDWARE INTEGRATION

High Performance in Harsh Environments

OP/Station® secure, customized workstations deliver reliable performance in the most challenging conditions.

Since 1987 we have manufactured, installed, and supported protective enclosures to safely house PCs and other technology systems in harsh environments. Our Hardware Integration service has evolved over time to become OP/Station® — a fully customizable family of industrial workstations that include the enclosures, PCs, LCD touchscreens, purging systems, cooling, and other required peripherals.

Operate Effectively, Anywhere — with a Customized, Secure System

Our OP/Station® industrial workstations are not just about enduring tough environments; they are about enhancing your operational efficiency and productivity with a system built to meet your requirements. With a focus on customization and scalability, we offer solutions that can plug into your environment seamlessly and adapt as your needs change.

- UL Rated, Hazardous Locations: Class I, II, III, Div. 2
- Certifications: UL 508A, UL 50E, FCC Class A, CE, UL 60950 3rd Edition
- NEMA 4/12 or NEMA 4/4X/12
- Sealed to IP65/66 standards
- Purge kits; IS barriers; signal disconnects
- UPS systems; cooling systems

Designs for Every Operating Environment

We offer several standard designs for industrial workstations, based on common applications and environments. From these standard designs, you can add features and capabilities to meet specific needs. Customizations can include specific sizes, inputs, communication connections, mounting options, and battery types.



Durability Redefined

Built to withstand harsh conditions, including extreme temperatures, dust, and vibration.



Performance Oriented

Workstations include powerful processors and graphics for demanding applications and data intensive tasks.



Seamless Integration

Easy integration with existing systems, offering a range of connectivity options.



Modular and Scalable

Modular design for easy customization and upgrades, to grow with your needs.

Designed for Safety and Efficiency

Our OP/Station solutions are not just functional but also safe, efficient, and compliant with industry standards, making them an ideal choice for pharmaceutical and critical infrastructure applications.

Space Optimization

Innovative design solutions ensure that even crowded facilities can efficiently accommodate essential computing platforms and visualization displays, optimizing every available space.

Flexible Mounting Solutions

We offer a variety of mounting options, such as pendant arm, wall-recessed, and ceiling mounts, catering to different spatial requirements. These flexible solutions, like the pendant arm mounts, enhance space efficiency by allowing adjustments and retraction when not in use.

Mobility and Connectivity

Mobile workstations are a standout feature, offering the flexibility to move units as needed within facilities. Equipped with wireless connectivity and heavy-duty batteries for continuous operation, these workstations facilitate rapid reconfiguration of work environments.

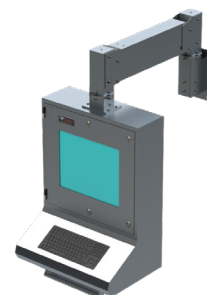


Compliance and Wireless Integration

We ensure that all OP/Station solutions are compliant with necessary regulatory standards, particularly vital in cleanroom environments. Built-in Wi-Fi capabilities allow for seamless communication, reducing the risks associated with wires in sensitive areas.

Ruggedized for Reliability

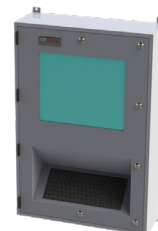
Our hardware, including thin clients, panel PCs, ruggedized touch displays, and mobile workstations, are engineered to withstand harsh industrial conditions.



Proven process. Custom products.

We follow a proven process to produce your customized industrial workstations.

1. Workstation custom design
2. Component selection and sourcing
3. Peripherals: Bar Code, UPS, Cooling, I/O, KVM
4. Computer components: RAID, SSD, video
5. System assembly and configuration
6. Mounting, wiring of specialized components
7. Loading operating system and software
8. Network setup
9. Specialized testing
10. Component tracking and revision control



Ready to Learn More?

Discover how our OP/Station industrial workstations and custom hardware integration services can transform your industrial workspace into a model of efficiency, safety, and compliance. Visit our website, call, or email us today.



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Panel Mount Industrial Monitors and Touch Screens Specifications: 12"-19"

Model No. (Revision):	HIS-ML12 (Rev. F)	HIS-ML15 (Rev. I)	HIS-ML17 (Rev. I)	HIS-ML19 (Rev. I)
Display				
Type	Thin-film transistor (TFT) Active Matrix Liquid Crystal, LED Backlit			
Size	12.1" diagonal	15" diagonal	17" diagonal	19" diagonal
Image Size (W x H)	246 mm x 184.5 mm (9.7" x 7.3")	304 mm x 228 mm (12.0" x 9.0")	338 mm x 270 mm (13.3" x 10.6")	375 mm x 300 mm (14.8" x 11.8")
Native Resolution	SVGA (800 x 600 @ 60 Hz)	XGA (1024 x 768 @ 60 Hz)	SXGA (1280 x 1024 @ 60 Hz)	
Aspect Ratio	4:3		5:4	
Pixel Pitch	0.308 mm x 0.308 mm	0.297 mm x 0.297 mm	0.264 mm x 0.264 mm	0.293 mm x 0.293 mm
Number of Colors	16.7 million			
Brightness (white)	450 nits (cd/m ²)	400 nits (cd/m ²)	250 nits (cd/m ²)	
Viewing Angle (Hori/Vert)	178° / 178°	170° / 170°	178° / 178°	
Contrast Ratio	1000:1	1500:1	1000:1	
Backlight Brightness half-life	60,000 hours		50,000 hours	40,000 hours
Video				
Input Connectors	DVI-I, DisplayPort			
Inputs using Adapter	HDMI, HDMI Mini, HDMI Micro, DisplayPort Mini, VGA, BNC			
Input Signal Formats	RGB Analog, Sync Types: Separate, Composite, Sync-on-Green; DVI; DisplayPort			
Horizontal Scan	31-60 kHz	31-80 kHz		
Vertical Scan	50-75 Hz		49-76 Hz	50-75 Hz
Response Rate	12 ms	35 ms	14 ms	
Electrical				
Monitor Input	100 to 240 VAC, 0.4/0.2A, 60/50 Hz or 9.6 to 36.6 VDC, 2.5 to 0.65 A	100 to 240 VAC, 1.5/0.75 A, 60/50 Hz or 9.6 to 36.6 VDC, 2.5 to 0.65 A	100 to 240 VAC, 0.6/0.3 A, 60/50 Hz and 10.8 to 26.4 VDC, 2.3 to 0.9 A	
Power Consumption	~10.3 W	~13.5 W	~12 W	~13.3 W
Power (Standby mode)	< 1.2 W		< 2 W	< 1.5 W
Environmental				
Operating Temperature	0° to 50°C (32° to 122°F)			
Storage Temperature	-20° to 60°C (-4° to 140°F)			
Humidity	20% to 90% non-condensing			
Operating Shock	15 g, 6 msec, half-sine			
Operating Vibration (sine)	1.0 g, swept sine 9-500 Hz			
Transport Vibration (random)	0.1g ² Hz, 10-200 Hz; 0.03g ² / Hz, 200-2000 Hz			
Altitude	Operating: up to 10,000 ft; Non-operating: up to 40,000 ft			
Functional				
Control Panel Buttons	Power On/Off button, Control Function buttons			
On-Screen Display Menus	Picture, Color, Image, OSD, Setup, Information (other options depending on model)			
Physical				
Enclosure Type	Panel mount; rear collar compresses gasket against panel (5/16" maximum panel thickness); held by M5 studs within single cutout			
Bezel Material	Black powder-coated carbon steel or stainless steel faceplate			
Panel Rating (with proper installation)	Black powder-coated carbon steel: NEMA/UL Type 12/4; IP65/IP66 Stainless steel: NEMA/UL Type 12/4/4X; IP65/IP66			
Depth behind Front Edge of Panel	50.3 mm (1.98")	49.6 mm (1.95")	49.7 mm (1.96")	55.6 mm (2.19")
Front Bezel Outside Dimensions (WxHxD)	338 mm x 296 mm x 7 mm (13.31" x 11.64" x 0.28")	437.8 mm x 353.6 mm x 7 mm (17.24" x 13.92" x 0.28")		483 mm x 399 mm x 7 mm (19.0" x 15.7" x 0.28")
Cutout Dimensions (WxH)	308 mm x 263 mm (12.12" x 10.35")	406.9 mm x 323.1 mm (16.02" x 12.72")		453.4 mm x 366.8 mm (17.85" x 14.44")
Net / Shipping Weight	8.5 lbs. / 11.4 lbs.	14 lbs. / 18 lbs.		18 lbs. / 22 lbs.
Window Options	Single-Touch Resistive Touch Screen, Tempered Glass window (non-touch), or Acrylic window (non-touch) Glass-armored touch screen with sulfur gas protection also available (call for details)			
Compliances and Certifications				
Electrical	UL/EN/IEC62368-1, UL/EN/IEC60950-1, UL Recognized Component for US and Canada, UL 508A, CAN ICES-3A/NMB-3A, CE, UKCA, FCC Class A, NOM			
Enclosure, Environmental	UL 50E, IEC 60721-3 (Reliability), WEEE			
Hazardous Location	UL Listed for Class I, II, III, Division 2, Groups A, B, C, D, F, G; Temp Code T4A		UL Listed for Class I, II, III, Division 2, Groups A, B, C, D, F, G; Temp Code T5	

Panel Mount Industrial Monitors and Touch Screens Specifications: 19.5"-23.8"

Model No. (Revision):	HIS-ML19.5 (Rev. C)	HIS-ML22 (Rev. D)	HIS-ML23.8 (Rev. B)
Display			
Type	Thin-film transistor (TFT) Active Matrix Liquid Crystal, LED Backlit		
Size	19.5" diagonal	22" diagonal	23.8" diagonal
Image Size (W x H)	435 mm x 239 mm (17.1" x 9.4")	474 mm x 296 mm (18.7" x 11.7")	527 mm x 296 mm (20.75" x 11.67")
Native Resolution	HD 1080p (1920 x 1080 @ 60Hz)	WSXGA+ (1680 x 1050 @ 60Hz)	HD 1080p (1920 x 1080 @ 60Hz)
Aspect Ratio	16:9	16:10	16:9
Pixel Pitch	0.2265 mm x 0.221 mm	0.282 mm x 0.282 mm	0.2745 mm x 0.2745 mm
Number of Colors	16.7 million		
Brightness (white)	350 nits (cd/m ²)	250 nits (cd/m ²)	350 nits (cd/m ²)
Viewing Angle (Hori/Vert)	170° / 170°	170° / 160°	178° / 178°
Contrast Ratio	3000:1	1000:1	
Backlight Brightness half-life	50,000 hours		40,000 hours
Video			
Input Connectors	DVI-I, DisplayPort		
Inputs using Adapter	HDMI, HDMI Mini, HDMI Micro, DisplayPort Mini, VGA, BNC		
Input Signal Formats	RGB Analog, Sync Types: Separate, Composite, Sync-on-Green; DVI; DisplayPort		
Horizontal Scan	31-80 kHz		
Vertical Scan	50-73 Hz	48-78 Hz	50-75 Hz
Response Rate	20 ms	5 ms	13 ms
Electrical			
Monitor Input	100 to 240 VAC, 0.6/0.3 A, 60/50 Hz and 10.8 to 26.4 VDC, 2.3 to 0.9 A	100 to 240 VAC, 1.5/0.75 A, 60/50 Hz or 9.6 to 36.6 VDC, 2.5 to 0.65 A	100 to 240 VAC, 0.6/0.3 A, 60/50 Hz and 10.8 to 26.4 VDC, 2.3 to 0.9 A
Power Consumption	~27 W	~13 W	~21 W
Power (Standby mode)	< 2 W		
Environmental			
Operating Temperature*	0° to 50°C (32° to 122°F)		
Storage Temperature	-20° to 60°C (-4° to 140°F)		
Humidity*	20% to 90% non-condensing		
Operating Shock	15 g, 6 msec, half-sine		
Operating Vibration (sine)	1.0 g, swept sine 9-500 Hz		
Transport Vibration (random)	0.1g ² Hz, 10-200 Hz; 0.03g ² / Hz, 200-2000 Hz		
Altitude	Operating: up to 10,000 ft; Non-operating: up to 40,000 ft		
Functional			
Control Panel Buttons	Power On/Off button, Control Function buttons		
On-Screen Display Menus	Picture, Color, Image, OSD, Setup, Information (other options depending on model)		
Physical			
Enclosure Type	Panel mount; rear collar compresses gasket against panel (5/16" maximum panel thickness); held by M5 studs within single cutout		
Bezel Material	Edge-to-edge window or stainless steel faceplate	Black powder-coated carbon steel or stainless steel faceplate	Edge-to-edge window or stainless steel faceplate
Panel Rating (with proper installation)	Edge-to-edge window: NEMA/UL Type 12/4/4X; IP65/66/69/69K Stainless steel: NEMA/UL Type 12/4/4X; IP65/IP66	Black powder-coated carbon steel: NEMA/UL Type 12/4; IP65/IP66 Stainless steel: NEMA/UL Type 12/4/4X; IP65/IP66	Edge-to-edge window: NEMA/UL Type 12/4/4X; IP65/66/69/69K Stainless steel: NEMA/UL Type 12/4/4X; IP65/IP66
Depth behind Front Edge of Panel	Edge-to-edge: 46.3 mm (1.82") Stainless: 47.5 mm (1.87")	50.1 mm (1.97")	Edge-to-edge: 46.1 mm (1.81") Stainless: 47.9 mm (1.88")
Front Bezel Outside Dimensions (WxHxD)	Edge-to-edge: 530 mm x 333 mm x 9 mm (20.87" x 13.1" x 0.35") Stainless: 528 mm x 328.5 mm x 9 mm (20.80" x 12.93" x 0.35")	559 mm x 375 mm x 7 mm (22.0" x 14.75" x 0.28")	Edge-to-edge: 597 mm x 377 mm x 9 mm (23.5" x 14.83" x 0.35") Stainless: 595.5 mm x 373 mm x 9.8 mm (23.44" x 14.69" x 0.39")
Cutout Dimensions (WxH)	497.8 mm x 298.5 mm (19.60" x 11.75")	528.7 mm x 342.3 mm (20.81" x 13.48")	566.7 mm x 342.4 mm (22.31" x 13.48")
Net / Shipping Weight	12.9 lbs. / 18 lbs.	19 lbs. / 23 lbs.	17 lbs. / 30 lbs.
Window Options	Single-Touch Resistive Touch Screen, Multi-Touch PCAP Touch Screen, Glass window (non-touch), or Food Protection window (non-touch)	Single-Touch Resistive Touch Screen, Tempered Glass window (non-touch), or Acrylic window (non-touch)	Single-Touch Resistive Touch Screen, Multi-Touch PCAP Touch Screen, Glass window (non-touch), or Food Protection window (non-touch)
Compliances and Certifications			
Electrical	UL/EN/IEC62368-1, UL/EN/IEC60950-1, UL Recognized Component for US and Canada, UL 508A, CAN ICES-3A/NMB-3A, CE, UKCA, FCC Class A, NOM		
Enclosure, Environmental	UL 50E, IEC 60721-3 (Reliability), WEEE		
Hazardous Location	UL Listed for Class I, II, III, Division 2, Groups A, B, C, D, F, G; Temp Code T5	UL Listed for Class I, II, III, Division 2, Groups A, B, C, D, F, G; Temp Code T5 (AC); Temp Code T4A (DC)	UL Listed for Class I, II, III, Division 2, Groups A, B, C, D, F, G; Temp Code T5

* Consult factory for the 23.8" resistive touch screen if the operating environment exceeds 70% humidity at maximum temperature spec of 50°C (122°F) or exceeds 40°C (104°F) at the maximum humidity spec of 90% humidity.