Hope Industrial Systems, Inc.

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Data Sheet: Panel Mount Monitors and Touch Screens
NEMA 12/4/4X, IP65/IP66
12"/15"/17"/19"/19.5"/22"/23.8"

Features

▶ NEMA 4/12 or NEMA 4/4X/12, sealed to IP65/66 standards

▶ UL Rated for Hazardous Locations: Class I, II, III, Division 2

▶ Bright, high contrast, and ultra-wide viewing angle displays

▶ Field-proven MTBF of more than 250,000 hours

▶ Touch Screen, Glass, Acrylic, and Food Protection window options

▶ Only 46 mm to 54 mm (1.81" to 2.12") deep

▶ Stainless steel, carbon steel, and edge-to-edge bezel options

▶ Panel mount without drilling stud holes

▶ Industrial Certifications: UL 508A, UL 50E, FCC Class A, CE, UL/EN/IEC62368-1, UL Recognized Component

5 YEAR WARRANTY

23.8" wide
22" wide
19.5" wide
19"
17"
15"
12"

Product Description

Hope Industrial Systems' Panel Mount Industrial Monitors are designed to provide the industrial user with excellent picture quality and rugged design for reliable continuous operation.

A unique single-cutout, stud-free design and depths of only 46 mm to 54 mm (1.81" to 2.12") make them a snap to install. Options like touch screens and KVM Extenders make these displays highly versatile.

These monitors are backed by industrial certifications (including 3rd-party environmental testing) and an industry-leading 5-year warranty.

Optional Accessories

▶ Industrial Keyboards (IP65/66, NEMA 4X rated)

▶ Screen Protectors

▶ Extended cable options up to 300 m (1000')

▶ KVM Extenders

c(UL)us   RoHS   CE   FC

About Hope Industrial Systems

Hope Industrial provides industrial flat panel monitors and touch screens with superior quality and up-to-date features that are relevant to industrial applications.

We house this advanced technology in a variety of rugged enclosures that allow the user to put their displays wherever they are needed in the factory. We assure our customers of high reliability over time and back it up with an industry-leading warranty.

We provide all of these benefits at a price that is significantly less than comparable industrial offerings. And finally, we offer the best sales, support and service in the industry:

▶ 5-year limited warranty on all monitors

▶ 24-48-hour repair turnaround (most models)

▶ Same day shipment lead time (most models)

▶ 30-day money-back guarantee

Rear view of 19" Panel Mount Monitor.

Panel Mount workstation configuration with monitor and industrial keyboard.

Optional KVM Extender allows monitor to be placed up to 1000' away from computer.

Optional Screen Protector guards touch screens from scratches and wear.

Panel Mount Industrial Monitors and Touch Screens: Specifications

Model No. (Revision)	HIS-ML12 (Rev. E)	HIS-ML15 (Rev. H)	HIS-ML17 (Rev. H)	HIS-ML19 (Rev. H)	HIS-ML19.5 (Rev. B)	HIS-ML22 (Rev. C)	HIS-ML23.8 (Rev. A)
Display							
Type	Thin-film transistor (TFT) Active Matrix Liquid Crystal, LED Backlit						
Size / Aspect Ratio	12.1" diagonal / 4:3	15" diagonal / 4:3	17" diagonal / 5:4	19" diagonal / 5:4	19.5" diagonal / 16:9	22" diagonal / 16:10	23.8" diagonal / 16:9
Image Size (WxH)	246 x 184.5 mm (9.7" x 7.3")	304 x 228 mm (12.0" x 9.0")	338 x 270 mm (13.3" x 10.6")	375 x 300 mm (14.8" x 11.8")	435 x 239 mm (17.1" x 9.4")	474 x 296 mm (18.7" x 11.7")	527 x 296 mm (20.75" x 11.67")
Native Resolution	SVGA (800 x 600 @ 60Hz)	XGA (1024 x 768 @ 60Hz)	SXGA (1280 x 1024 @ 60Hz)		HD1080p (1920 x 1080 @ 60 Hz)	WSXGA+ (1680 x 1050 @ 60Hz)	HD1080p (1920 x 1080 @ 60Hz)
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	0.2265 mm x 0.221 mm	0.282 x 0.282 mm	0.2745 x 0.2745 mm
Number of Colors	16.7 million						
Brightness (white)	450 nits (cd/m^2)	400 nits (cd/m^2)	250 nits (cd/m^2)				350 nits (cd/m^2)
Viewing Angle (Hori/Vert)	178° / 178°	170° / 170°	170° / 160°	178° / 178°		170° / 160°	178° / 178°
Contrast Ratio	1500:1		1000:1	1000:1 (typ); 20M:1 (dyn)	3000:1	1000:1 (typ); 10M:1 (dyn)	1000:1
Backlight Brightness half-life	60,000 hours			40,000 hours	50,000 hours		40,000 hours
Video							
Input Connectors	HD-15, DVI-I			HD-15, DVI-D	DVI-I, DisplayPort	HD-15, DVI-I	DVI-I, DisplayPort
Inputs using Adapter	HDMI, HDMI Mini, HDMI Micro, DisplayPort (DP), DisplayPort Mini, BNC				HDMI, HDMI Mini, HDMI Micro, DisplayPort Mini, VGA, BNC	HDMI, HDMI Mini, HDMI Micro, DP, DP Mini, BNC	HDMI, HDMI Mini, HDMI Micro, DisplayPort Mini, VGA, BNC
Input Signal Formats	RGB Analog, Sync Types: Separate (Sep.), Composite (Comp.), Sync-on-Green (SoG); DVI			RGB Analog, Sync Type: Separate; DVI	RGB: Sep., Comp., SoG; DVI; DisplayPort	RGB: Sep., Comp., SoG; DVI	RGB: Sep., Comp., SoG; DVI; DisplayPort
Horizontal / Vertical Scan	30-60 kHz / 50-75 Hz	31-73 kHz / 50-75 Hz			24-82 kHz / 50-75 Hz		
Response Time	12 ms	35 ms	5 ms	14 ms	25 ms	5 ms	14 ms
Electrical							
Monitor Input	100 to 240 VAC, 0.4/0.2A, 60/50 Hz or 9.6-36.6 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	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	~14.9 W	~16.8 W	~20 W	~16 W	~27 W	~26 W	~27 W
Environmental							
Temperature / Humidity	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 / Vibration	15 g, 6 msec, half-sine / Operating Vibration (sine): 1.0 g, swept sine 9-500 Hz; Transport Vibration (random): 0.1g^2/Hz, 10-200Hz; 0.03g^2/Hz, 200-2000 Hz						
Altitude	Operating: up to 10,000 ft; Non-operating: up to 40,000 ft						
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				Edge-to-edge window	Black carbon steel or stainless steel faceplate	Edge-to-edge window
Panel Rating (with proper installation)	Black powder-coated carbon steel (CS): NEMA/UL Type 12/4; IP65/IP66 Stainless steel (SS): NEMA/UL Type 12/4/4X; IP65/IP66				NEMA/UL Type 12/4/4X; IP65/66/69/69K	CS: NEMA/UL Type 12/4; IP65/66 SS: NEMA/UL 12/4/4X; IP65/66	NEMA/UL Type 12/4/4X; IP65/66/69/69K
Depth behind Front Edge of Panel	50.3 mm (1.98")	49.6 mm (1.95")	49.9 mm (1.97")	53.8 mm (2.12")	46.3 mm (1.82")	50.0 mm (1.97")	46.1 mm (1.81")
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")	530 mm x 333 mm x 9 mm (20.87" x 13.1" x 0.35")	559 mm x 375 mm x 7 mm (22.0" x 14.75" x 0.28")	597 mm x 377 mm x 9 mm (23.5" x 14.83" x 0.35")
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")	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	8.5 lbs. / 11.4 lbs.	14 lbs. / 18 lbs.		18 lbs. / 22 lbs.	12.9 lbs. / 18 lbs.	19 lbs. / 23 lbs.	17 lbs. / 30 lbs.
Window Options	All Models: • Single-Touch Resistive Touch Screen • Tempered Glass window (non-touch) • Acrylic window (non-touch) (n/a 19.5, 23.8)			• Glass-armored touch screen with sulfur gas protection also available (call for details)		HIS-ML19.5 and HIS-ML23.8 Models only: • Multi-Touch PCAP Touch Screen • 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 T4A	UL Listed for Class I, II, III, Division 2, Groups A, B, C, D, F, G; Temp Code T4	UL Listed for Class I,II,III, Div. 2, Grps A,B,C,D,F,G; T-Code T5 (AC); T-Code T4A (DC)	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, Div. 2, Grps A,B,C,D,F,G; T-Code T5 (AC); T-Code T4A (DC)	UL Listed for Class I, II, III, Division 2, Groups A, B, C, D, F, G; Temp Code T5