

MSI370

Mariner Kit for use with the HP EliteDisplay E231 23-inch widescreen LED backlit LCD monitor (Desk mount)



The HP EliteDisplay E231 23-inch widescreen LED backlit LCD monitor is type-approved by all of the major international marine Classification Societies when it is installed in conjunction with our Mariner Kit MSI370.

The MSI370 Mariner Kit is designed to fit onto any horizontal surface and affords protection against the effects of vibration and shock experienced in the offshore marine environment. The combination has been type-tested against IACS Unified Requirement E10 and the relevant sections of IEC60945 (see below right for test details).

This type-approved combination of hardware and Mariner Kit can be used as the platform for your critical navigation, control, loading and general purpose applications (please check individual type-approval certificates for any restrictions).

Please note that although the monitor does retain its standard functionality we do not offer an automatic dimming function and it can not therefore be used in the front of the bridge where it may affect night vision. However, the LED backlit LCD monitor can be used in any area where night vision is not an issue.

“Steer the right course with Mariner Systems”



KEY FEATURES OF THE HP ELITEDISPLAY E231 23-INCH LED BACKLIT LCD MONITOR:

- ◆ Deliver clear views with wide viewing angles, and keep your content crisp and readable with high contrast ratios and fast response times
- ◆ Easily connect devices with convenient VGA, DVI-D and DisplayPort inputs and an integrated 2-port USB hub
- ◆ Reduce power consumption and help lower your costs with an intelligent, energy efficient design that carries ENERGY STAR®, EPEAT® Gold and TCO 6.0 certifications
- ◆ Help decrease your eco-footprint with mercury-free LED display backlighting, a low-halogen design and arsenic-free display glass
- ◆ Native 1920 x 1080 resolution with over 16 million colours
- ◆ 170 degree wide viewing angle, 250 cd/m² brightness, 5,000,000:1 dynamic contrast ratio and fast 5 ms response times for precise views
- ◆ The on-screen display button controls on the monitor front allows quick and easy adjustment of brightness, contrast and numerous other settings
- ◆ Display Assistant for custom picture quality, theft deterrence, and energy savings enablement
- ◆ 98% of the monitor is recycleable when properly disposed of at end of life
- ◆ Three-year limited parts and repair labour on-site warranty

This Mariner system is type-tested against the consolidated, 'worst-case' requirements of all the major international marine Classification Societies:

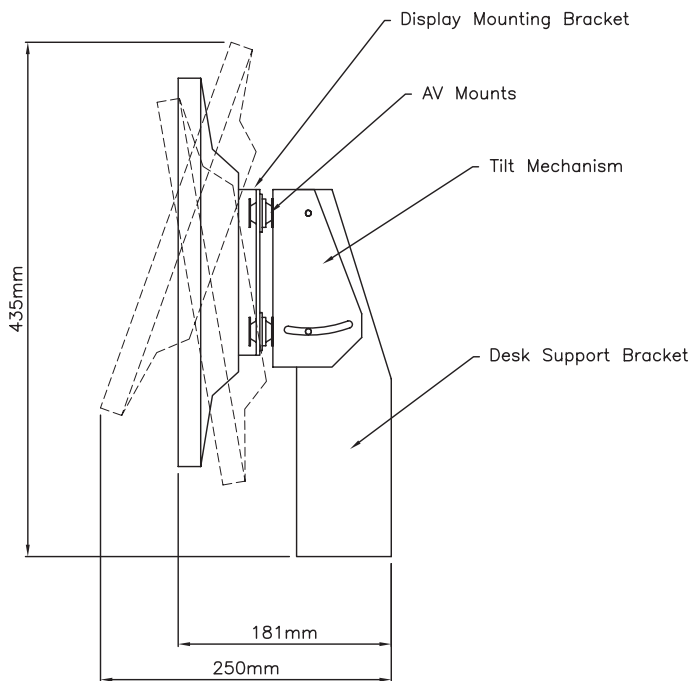
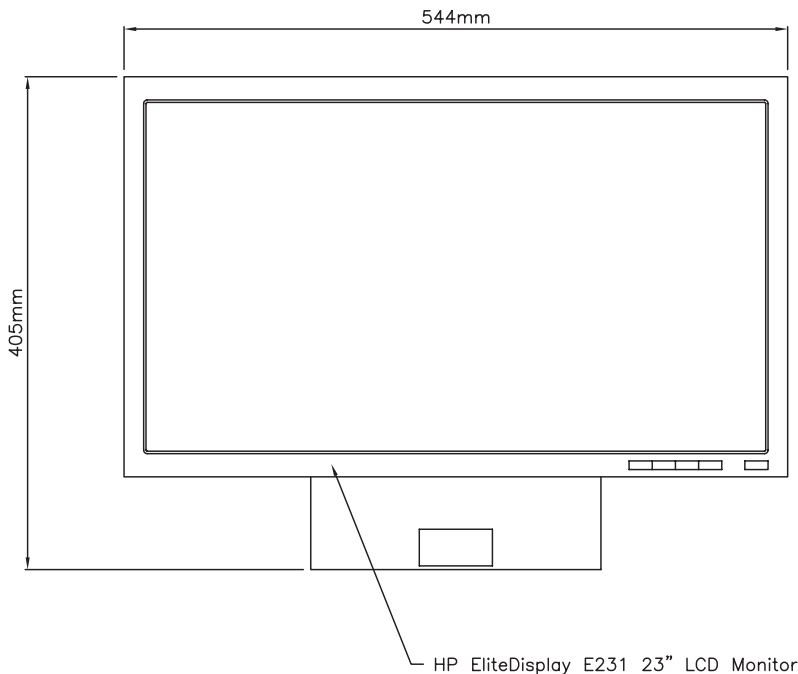
ABS, BV, CCS, DNV, GL, KR, LR, NKK, PRS, RINA

Type-tests included on the test programme are as follows:

- > Vibration, Shock, Static and Dynamic Inclination
- > Dry & Damp Heat, Low Temperature
- > Acoustic Noise, Compass Safe Distance
- > High Voltage, Power Supply Variation & Power Supply Failure
- > Conducted LF & RF, Electromagnetic Field
- > Radiated & Conducted Emissions, Electrostatic Discharge
- > Insulation Resistance, Burst / Fast Transients
- > Surge Immunity, Access to Dangerous Voltages

MSI370

Mariner Kit for use with the HP EliteDisplay E231 23-inch widescreen LED backlit LCD monitor (Desk mount)



Mariner Systems (UK) Limited

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 sales@marinersystems.com • www.marinersystems.com

OPERATING GUIDELINES:

Although all our equipment is tested against extreme environmental conditions for the purposes of marine type-approval, installation should take into account the following guidelines:

- > Keep the monitor away from excessive moisture, direct moisture and the extremes of heat and cold to ensure, where possible, that the unit is within the following operating/non-operating ranges:

	Operating	Non-operating
Temperature	+5° to +35°C (+41° to +95°F)	-20° to +60°C (-4° to +140°F)
Humidity	20% to 80% (non-condensing)	5% to 95% (38.7°C max wet-bulb)

- > Leave clearance on all vented sides of the monitor to permit the required airflow
- > Never restrict airflow into the monitor by blocking any vents or air intakes
- > If the monitor is to be operated within a separate enclosure, suitable ventilation should be provided

By following these guidelines you will maximise the life of your equipment and minimise service costs.

STATISTICS

Overall Fitted Dimensions (max)	544mm (w) x 435mm (h) x 250mm (d)
Weight (Mariner Kit only)	1.5 kg
Weight (including hardware)	5.4 kg
Type	TN (Twisted Nematic) LED backlit LCD
Viewable Image Area (diagonal)	23.0 in (58.4 cm)
Active Area (w x h)	20.05 x 11.28 in (50.92 x 28.64 cm)
Aspect Ratio	16:9
Viewing Angle (typical)	Up to 170 degrees horizontal / 160 degrees vertical (10:1 minimum contrast ratio)
Brightness (typical)	250 nits (cd/m ²)
Static Contrast Ratio (typical)	1000:1
Dynamic Contrast Ratio (typical)	5,000,000:1
Response Rate (typical)	5 ms (on/off)
Pixel Pitch	0.265 mm
Backlight Lamp Life (to half brightness)	30,000 hours minimum
Buttons or Switches	Power on/off; 4-button OSD
Native Resolution	1920 x 1080 @ 60 Hz
Plug and Play	Yes
Input Connectors	VGA (analogue), DVI-D, DisplayPort (HDCP support on DVI-D and DisplayPort)
USB	Integrated USB 2.0 hub with (2) Downstream and (1) Upstream ports
Input Power	90 - 265 VAC at 45 - 63 Hz
Typical Power Consumption	33W
Maximum Power Consumption	36W
Mariner Kit Tilt Range	10 degrees down; 20 degrees up

BASIC JAPAN

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 URL: www.basicjp.com

Design and specifications are subject to change without notice. E&OE.

Version I

MSI375

Mariner Kit for use with the HP EliteDisplay E231 23-inch widescreen LED backlit LCD monitor (Wall mount)



The HP EliteDisplay E231 23-inch widescreen LED backlit LCD monitor is type-approved by all of the major international marine Classification Societies when it is installed in conjunction with our Mariner Kit MSI375.

The MSI375 Mariner Kit is designed to fit onto any vertical surface and affords protection against the effects of vibration and shock experienced in the offshore marine environment. The combination has been type-tested against IACS Unified Requirement E10 and the relevant sections of IEC60945 (see below right for test details).

This type-approved combination of hardware and Mariner Kit can be used as the platform for your critical navigation, control, loading and general purpose applications (please check individual type-approval certificates for any restrictions).

Please note that although the monitor does retain its standard functionality we do not offer an automatic dimming function and it can not therefore be used in the front of the bridge where it may affect night vision. However, the LED backlit LCD monitor can be used in any area where night vision is not an issue.

“Proven solutions for a demanding environment”



KEY FEATURES OF THE HP ELITEDISPLAY E231 23-INCH LED BACKLIT LCD MONITOR:

- ◆ Deliver clear views with wide viewing angles, and keep your content crisp and readable with high contrast ratios and fast response times
- ◆ Easily connect devices with convenient VGA, DVI-D and DisplayPort inputs and an integrated 2-port USB hub
- ◆ Reduce power consumption and help lower your costs with an intelligent, energy efficient design that carries ENERGY STAR®, EPEAT® Gold and TCO 6.0 certifications
- ◆ Help decrease your eco-footprint with mercury-free LED display backlighting, a low-halogen design and arsenic-free display glass
- ◆ Native 1920 x 1080 resolution with over 16 million colours
- ◆ 170 degree wide viewing angle, 250 cd/m² brightness, 5,000,000:1 dynamic contrast ratio and fast 5 ms response times for precise views
- ◆ The on-screen display button controls on the monitor front allows quick and easy adjustment of brightness, contrast and numerous other settings
- ◆ Display Assistant for custom picture quality, theft deterrence, and energy savings enablement
- ◆ 98% of the monitor is recycleable when properly disposed of at end of life
- ◆ Three-year limited parts and repair labour on-site warranty

This Mariner system is type-tested against the consolidated, 'worst-case' requirements of all the major international marine Classification Societies:

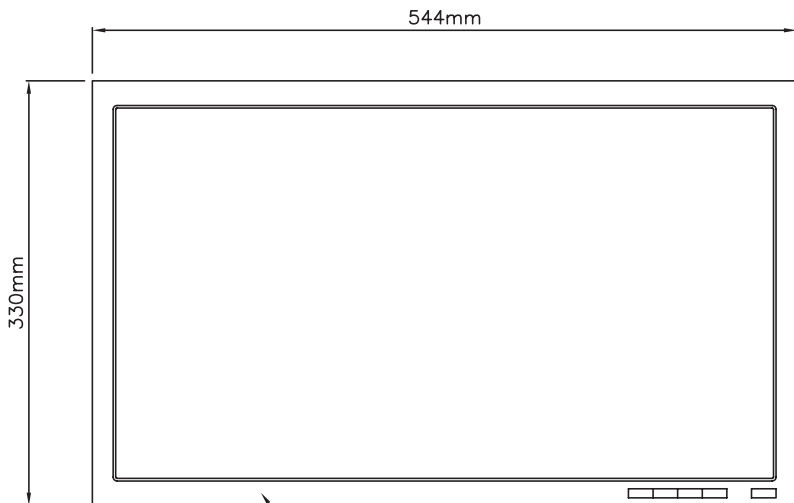
ABS, BV, CCS, DNV, GL, KR, LR, NKK, PRS, RINA

Type-tests included on the test programme are as follows:

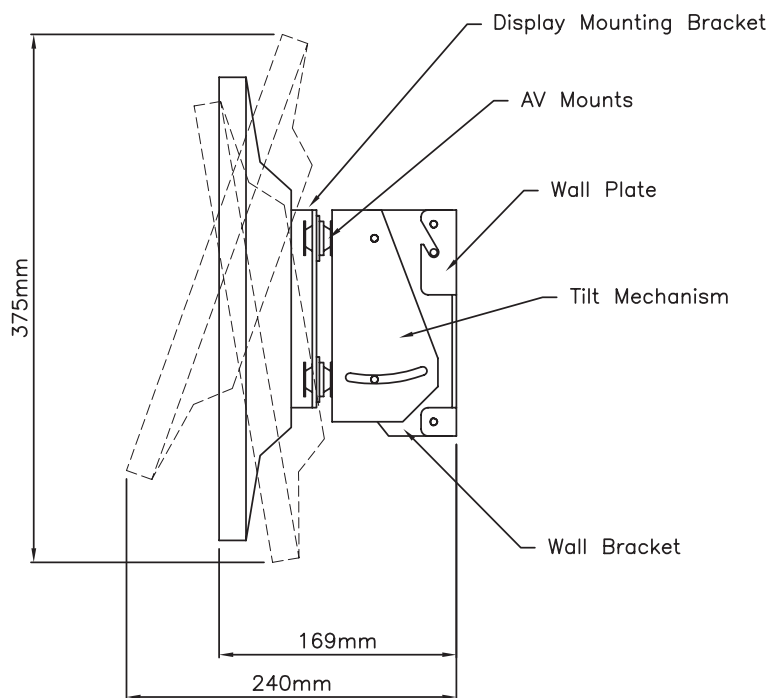
- > Vibration, Shock, Static and Dynamic Inclination
- > Dry & Damp Heat, Low Temperature
- > Acoustic Noise, Compass Safe Distance
- > High Voltage, Power Supply Variation & Power Supply Failure
- > Conducted LF & RF, Electromagnetic Field
- > Radiated & Conducted Emissions, Electrostatic Discharge
- > Insulation Resistance, Burst / Fast Transients
- > Surge Immunity, Access to Dangerous Voltages

MSI375

Mariner Kit for use with the HP EliteDisplay E231 23-inch widescreen LED backlit LCD monitor (Wall mount)



HP EliteDisplay E231 23" LCD Monitor



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OPERATING GUIDELINES:

Although all our equipment is tested against extreme environmental conditions for the purposes of marine type-approval, installation should take into account the following guidelines:

- > Keep the monitor away from excessive moisture, direct moisture and the extremes of heat and cold to ensure, where possible, that the unit is within the following operating/non-operating ranges:

	Operating	Non-operating
Temperature	+5° to +35°C (+41° to +95°F)	-20° to +60°C (-4° to +140°F)
Humidity	20% to 80% (non-condensing)	5% to 95% (38.7°C max wet-bulb)

- > Leave clearance on all vented sides of the monitor to permit the required airflow
- > Never restrict airflow into the monitor by blocking any vents or air intakes
- > If the monitor is to be operated within a separate enclosure, suitable ventilation should be provided

By following these guidelines you will maximise the life of your equipment and minimise service costs.

STATISTICS

Overall Fitted Dimensions (max)	544mm (w) x 375mm (h) x 240mm (d)
Weight (Mariner Kit only)	1.3 kg
Weight (including hardware)	5.2 kg
Type	TN (Twisted Nematic) LED backlit LCD
Viewable Image Area (diagonal)	23.0 in (58.4 cm)
Active Area (w x h)	20.05 x 11.28 in (50.92 x 28.64 cm)
Aspect Ratio	16:9
Viewing Angle (typical)	Up to 170 degrees horizontal / 160 degrees vertical (10:1 minimum contrast ratio)
Brightness (typical)	250 nits (cd/m ²)
Static Contrast Ratio (typical)	1000:1
Dynamic Contrast Ratio (typical)	5,000,000:1
Response Rate (typical)	5 ms (on/off)
Pixel Pitch	0.265 mm
Backlight Lamp Life (to half brightness)	30,000 hours minimum
Buttons or Switches	Power on/off; 4-button OSD
Native Resolution	1920 x 1080 @ 60 Hz
Plug and Play	Yes
Input Connectors	VGA (analogue), DVI-D, DisplayPort (HDCP support on DVI-D and DisplayPort)
USB	Integrated USB 2.0 hub with (2) Downstream and (1) Upstream ports
Input Power	90 - 265 VAC at 45 - 63 Hz
Typical Power Consumption	33W
Maximum Power Consumption	36W
Mariner Kit Tilt Range	10 degrees down; 20 degrees up

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MSI 380

Mariner Kit for use with the HP EliteDisplay E231 23-inch widescreen LED backlit LCD monitor (Console mount)



The HP EliteDisplay E231 23-inch widescreen LED backlit LCD monitor is type-approved by all of the major international marine Classification Societies when it is installed in conjunction with our Mariner Kit MSI380.

The MSI380 Mariner Kit is designed to fit into a console cut-out and affords protection against the effects of vibration and shock experienced in the offshore marine environment. The combination has been type-tested against IACS Unified Requirement E10 and the relevant sections of IEC60945 (see below right for test details).

This type-approved combination of hardware and Mariner Kit can be used as the platform for your critical navigation, control, loading and general purpose applications (please check individual type-approval certificates for any restrictions).

Please note that although the monitor does retain its standard functionality we do not offer an automatic dimming function and it can not therefore be used in the front of the bridge where it may affect night vision. However, the 23-inch LED backlit LCD monitor can be used in any area where night vision is not an issue.

“World leading type-approved computer hardware”



KEY FEATURES OF THE HP ELITEDISPLAY E231 23-INCH LED BACKLIT LCD MONITOR:

- ◆ Deliver clear views with wide viewing angles, and keep your content crisp and readable with high contrast ratios and fast response times
- ◆ Easily connect devices with convenient VGA, DVI-D and DisplayPort inputs and an integrated 2-port USB hub
- ◆ Reduce power consumption and help lower your costs with an intelligent, energy efficient design that carries ENERGY STAR®, EPEAT® Gold and TCO 6.0 certifications
- ◆ Help decrease your eco-footprint with mercury-free LED display backlighting, a low-halogen design and arsenic-free display glass
- ◆ Native 1920 x 1080 resolution with over 16 million colours
- ◆ 170 degree wide viewing angle, 250 cd/m² brightness, 5,000,000:1 dynamic contrast ratio and fast 5 ms response times for precise views
- ◆ The on-screen display button controls on the monitor front allows quick and easy adjustment of brightness, contrast and numerous other settings
- ◆ Display Assistant for custom picture quality, theft deterrence, and energy savings enablement
- ◆ 98% of the monitor is recycleable when properly disposed of at end of life
- ◆ Three-year limited parts and repair labour on-site warranty

This Mariner system is type-tested against the consolidated, 'worst-case' requirements of all the major international marine Classification Societies:

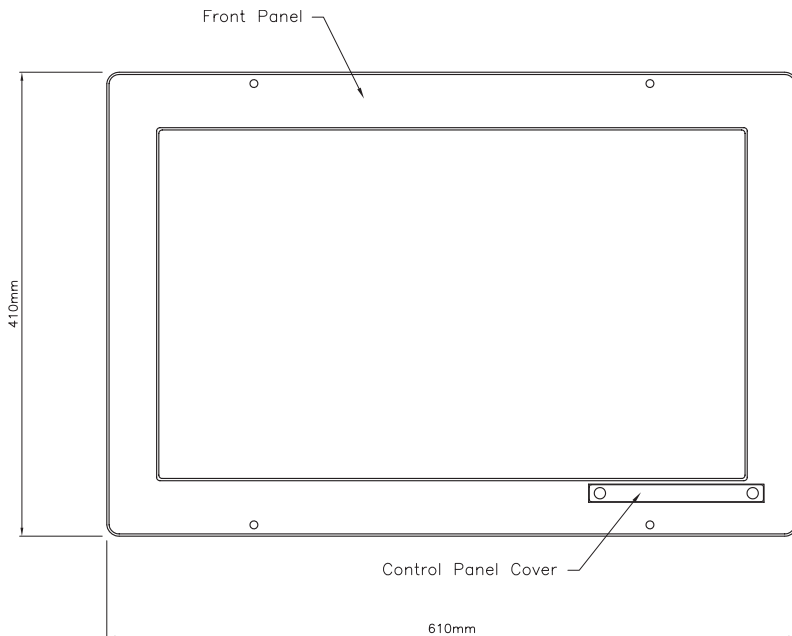
ABS, BV, CCS, DNV, GL, KR, LR, NKK, PRS, RINA

Type-tests included on the test programme are as follows:

- > Vibration, Shock, Static and Dynamic Inclination
- > Dry & Damp Heat, Low Temperature
- > Acoustic Noise, Compass Safe Distance
- > High Voltage, Power Supply Variation & Power Supply Failure
- > Conducted LF & RF, Electromagnetic Field
- > Radiated & Conducted Emissions, Electrostatic Discharge
- > Insulation Resistance, Burst / Fast Transients
- > Surge Immunity, Access to Dangerous Voltages

MSI 380

Mariner Kit for use with the HP EliteDisplay E23I 23-inch widescreen LED backlit LCD monitor (Console mount)



OPERATING GUIDELINES:

Although all our equipment is tested against extreme environmental conditions for the purposes of marine type-approval, installation should take into account the following guidelines:

- > Keep the monitor away from excessive moisture, direct moisture and the extremes of heat and cold to ensure, where possible, that the unit is within the following operating/non-operating ranges:

	Operating	Non-operating
Temperature	+5° to +35°C (+41° to +95°F)	-20° to +60°C (-4° to +140°F)
Humidity	20% to 80% (non-condensing)	5% to 95% (38.7°C max wet-bulb)

- > Leave clearance on all vented sides of the monitor to permit the required airflow
- > Never restrict airflow into the monitor by blocking any vents or air intakes
- > If the monitor is to be operated within a separate enclosure, suitable ventilation should be provided

By following these guidelines you will maximise the life of your equipment and minimise service costs.

STATISTICS

Overall Fitted Dimensions (max)	610mm (w) x 410mm (h) x 109mm (d)
Weight (Mariner Kit only)	7.1 kg
Weight (including hardware)	11.3 kg
Type	TN (Twisted Nematic) LED backlit LCD
Viewable Image Area (diagonal)	23.0 in (58.4 cm)
Active Area (w x h)	20.05 x 11.28 in (50.92 x 28.64 cm)
Aspect Ratio	16:9
Viewing Angle (typical)	Up to 170 degrees horizontal / 160 degrees vertical (10:1 minimum contrast ratio)
Brightness (typical)	250 nits (cd/m²)
Static Contrast Ratio (typical)	1000:1
Dynamic Contrast Ratio (typical)	5,000,000:1
Response Rate (typical)	5 ms (on/off)
Pixel Pitch	0.265 mm
Backlight Lamp Life (to half brightness)	30,000 hours minimum
Buttons or Switches	Power on/off; 4-button OSD
Native Resolution	1920 x 1080 @ 60 Hz
Plug and Play	Yes
Input Connectors	VGA (analogue), DVI-D, DisplayPort (HDCP support on DVI-D and DisplayPort)
USB	Integrated USB 2.0 hub with (2) Downstream and (1) Upstream ports
Input Power	90 - 265 VAC at 45 - 63 Hz
Typical Power Consumption	33W
Maximum Power Consumption	36W
Mariner Kit Tilt Range	Not applicable



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