

# MU-DISPLAY series

# MARINE DISPLAY

Model MU-150HD/190HD/190/190V/231/270W





# Need a bright idea? How about using FURUNO marine grade monitors in your helm!

The FURUNO MU-Display series is a multi-purpose marine LCD that features the unmatched quality and reliability that you have learned to depend on.

The MU-Display series employs bright color TFT LCDs with a special AR (anti-reflective) glass filter to cut down on annoying glare. With its bright colors, excellent contrast and wide viewing angles, the monitor is perfect for any tropical sunlight or low light conditions. Furthermore, the LCDs and the glass are bonded to ensure fog free operation on open fly-bridge installations\*.

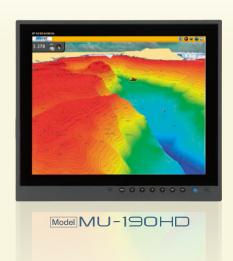
These units feature a wide range of interface options that include: RGB analog, DVI (Digital Video Interface) and composite video inputs.

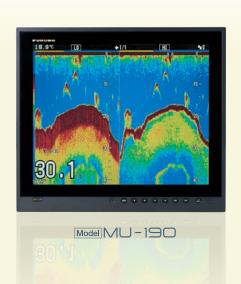
These displays may be used as either the main or remote display for a variety of marine equipment such as BlackBox Radar, Sounder, Sonar and NavNet series. They can also be used for displaying images from security cameras, DVD player, computers, etc.

\*for MU-150HD and MU-190HD

#### MU-DISPLAY series



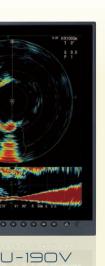








|  | MU-<br>150HD   | MU-<br>190HD   | MU-<br>190     | MU-<br>190V    | MU-<br>231     | MU-<br>270W      |
|--|----------------|----------------|----------------|----------------|----------------|------------------|
| Crystal clear marine grade monitors for use as main or remote display  | $\checkmark$   | $\checkmark$   | <b>\</b>       | <b>/</b>       | <b>\</b>       | <b>\</b>         |
| Bonded LCD provides clear view in any weather condition and avoids concerns such as dew condensation                           | $\checkmark$   | <b>V</b>       | \=             | /-             | \_/            | _                |
| Available in table top or flush mount (Mounting bracket is optional)   | $\checkmark$   | $\checkmark$   | <b>\</b>       | <b>\</b>       | <b>\</b>       | $\checkmark$     |
| Automatic dimmer sensor adjusts the display brightness as lighting conditions change   | <b>\</b>       | $\checkmark$   | <b>\</b>       | <b>~</b>       | <b>~</b>       | $\checkmark$     |
| Customizable input names for easy on-the- fly identification and switching between onboard Radar, Sonar, Sounder, Camera, etc. | $\checkmark$   | $\checkmark$   | <b>\</b>       | $\checkmark$   | $\checkmark$   | $\checkmark$     |
| Any of the composite inputs are PIP (Picture-In-Picture) capable, with adjustable size and screen location                     | $\checkmark$   | $\checkmark$   | $\checkmark$   | $\checkmark$   | <b>\</b>       | $\checkmark$     |
| Power ON/OFF automatically by the DVI signal   | $\checkmark$   | $\checkmark$   | $\checkmark$   | $\checkmark$   | $\checkmark$   | $\checkmark$     |
| 1,000 cd/m² brightness provides superior visibility even in direct sunlight  | $\checkmark$   | $\checkmark$   | _              | _              | _              | _                |
| Built-in scaler allows accepting up to various resolutions   | VGA to<br>SXGA | VGA to<br>SXGA | VGA to<br>SXGA | VGA to<br>SXGA | VGA to<br>UXGA | SVGA to<br>WUXGA |
| Selectable inputs including RGB analog,<br>DVI (Digital Video Interface) and Composite   | $\checkmark$   | $\checkmark$   | $\checkmark$   | $\checkmark$   | $\checkmark$   | $\checkmark$     |







# **Features**

15"

XGA (1024 x 768)



Model MU-150HD

1000 cd/m<sup>2</sup>



19"

SXGA (1280 x 1024)



Model MU-190HD

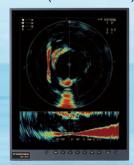
Enhanced Sunlight Viewable Bonded VIDENTI 1000 cd/m<sup>2</sup>

SXGA (1280 x 1024)



Model MU - 190 VIDENT

SXGA (1280 x 1024)

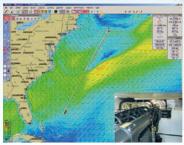


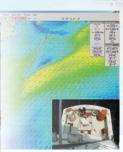
### **Picture In Picture (PIP)**

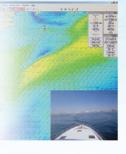
#### : MU-150HD/190HD/190/190V/231/270W

Composite video (NTSC/PAL) input is available for displaying video images from an onboard TV/DVD player.

For MU-150HD/190HD with more than two Composite Video Inputs, the images in the PIP window automatically switch alternately.







## Low power consumption

#### : MU-150HD/190HD/190V/231/270W

Utilizing the latest LED backlight, the MU-Display series delivers sharp, high quality images with bright colors and all at very low power consumption.

#### Waterproof: MU-150HD/190HD

The MU-150HD/190HD has a waterproof display and is built to stand up to tough marine conditions when mounted at fly bridge console.

The display can be rinsed in water for easy, worry-free cleaning.



# Slim, lightweight and compact

#### : MU-150HD/190HD/190V/231/270W

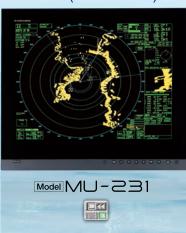
The MU-Display series is slim in depth, light weight and is so compact that it fits right into virtually any console.

It's space-saving design makes optimum use of vour dashboard.



23.1"

UXGA (1600 x 1200)



27"

WUXGA (1920 x 1200)



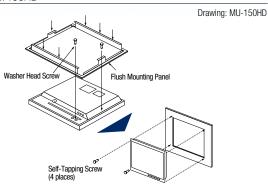
# **Flush mounting**

For space-saving installation and additional security, flush mount installation is available for all the MU-Display series. The display unit can be fixed from either front or rear with the flush mount kit for MU-150HD/190HD/190V/231/270W.

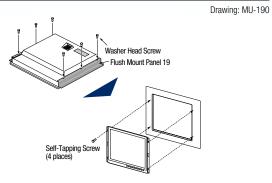


#### Flush mounting, fixed from front

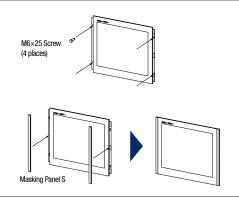
MU-150HD/190HD



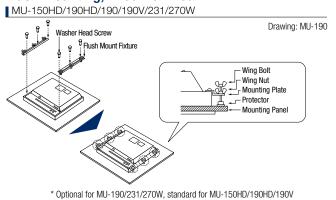
MU-190/231



#### MU-270W



#### Flush mounting, fixed from rear\*



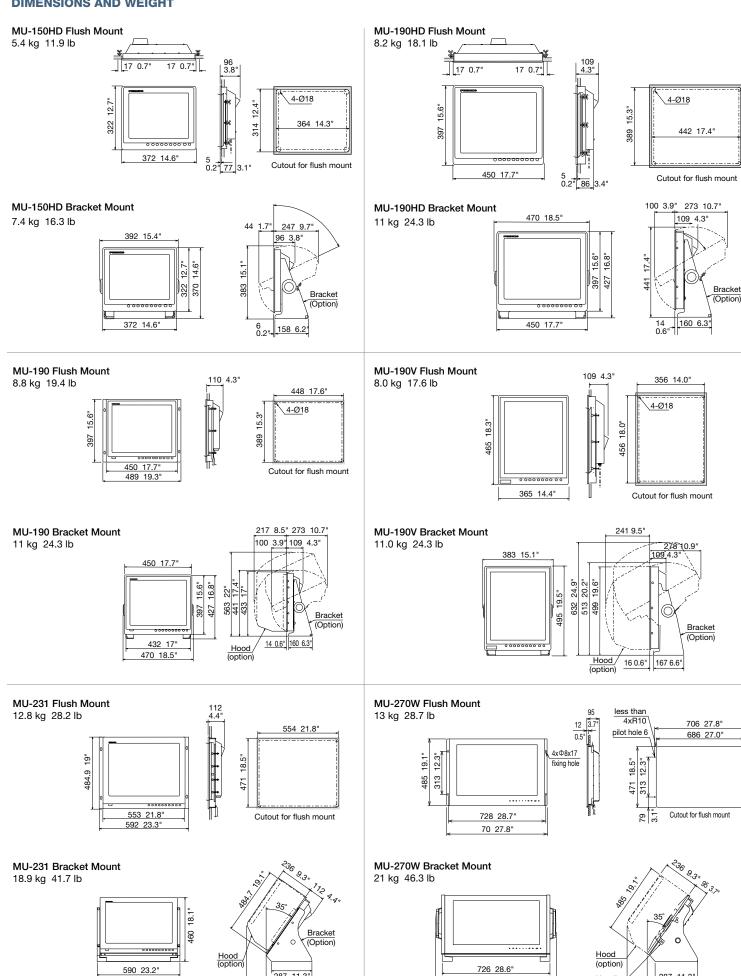
# SPECIFICATIONS OF MU-DISPLAY Series

| DISPLAY CHARACTERISTICS         | MU-150HD  | MU-190HD   |  |  |
|---------------------------------|---|--|--|--|
| Screen Size                     | 15 inches, landscape  | 19 inches, landscape   |  |  |
| Resolution                      | XGA   | SXGA   |  |  |
|                                 | (1024 x 768)  | (1280 x 1024)  |  |  |
| Contrast Ratio (typical)        | 600 : 1   | 900 : 1  |  |  |
| Viewing Angle (typical)         | left/right and up/down: 80° or more   |  |  |  |
| Max Brightness (typical)        | 1000 cd/m <sup>2</sup>  |  |  |  |
| INTERFACE                       |   |  |  |  |
| Analog RGB (D-SUB/15 pins)      | 1 port  | 1 port   |  |  |
| DVI (DVI-D)                     | 2 ports   | 2 ports  |  |  |
| Composite Video (NTSC/PAL)      | 3 ports   | 3 ports  |  |  |
| Built-in Scaler                 | VGA to SXGA   | VGA to SXGA  |  |  |
| POWER SUPPLY                    | 12-24 VDC   | 12-24 VDC  |  |  |
|                                 | 4.5 - 2.2 A   | 8.4 - 3.9 A  |  |  |
| ENVIRONMENT (IEC 60945 test met | hod)  |  |  |  |
| Temperature                     | -15°C to +55°C  |  |  |  |
| Waterproofing                   | IP56 (CFR46, front panel),  |  |  |  |
|                                 | IP22 (rear panel)   |  |  |  |
| EQUIPMENT LIST                  | Standard 1. Display Unit 2. Flush Mount Kit (for fixing at rear) 3. Installation Materials, Accessories and Spare Parts | Option  1. Cable Assembly  2. Bracket Assembly (w/knobs)  3. Hood Assembly  4. Flush Mount Kit (for fixing at front) |  |  |

| DISPLAY CHARACTERISTICS             | MU-190V               | MU-190                  | MU-231                 | MU-270W               |  |
|-------------------------------------|-----------------------|-------------------------|------------------------|-----------------------|--|
| Screen Size                         | 19 inches, portrait   | 19 inches, landscape    | 23.1 inches, landscape | 27 inches, landscape  |  |
| Resolution                          | SXGA                  | SXGA                    | UXGA                   | WUXGA                 |  |
|                                     | (1280 x 1024)         | (1280 x 1024)           | (1600 x 1200)          | (1920 x 1200)         |  |
| Contrast Ratio (typical)            | 900 : 1               | 900 : 1                 | 600 : 1                | 1500 : 1              |  |
| Viewing Angle (typical)             |                       | left/right and up/down: |                        |                       |  |
|                                     |                       | 85° or more             |                        |                       |  |
| Max Brightness (typical)            | 500 cd/m <sup>2</sup> | 450 cd/m <sup>2</sup>   | 400 cd/m <sup>2</sup>  | 400 cd/m <sup>2</sup> |  |
| INTERFACE                           |                       |                         |                        |                       |  |
| Analog RGB (D-SUB/15 pins)          | 1 port                | 1 port                  | 1 port                 | 1 port                |  |
| DVI (DVI-D)                         | 2 ports               | 2 ports                 | 2 ports                | 2 ports               |  |
| Composite Video (NTSC/PAL)          | 1 port                | 1 port                  | 1 port                 | 1 port                |  |
| Built-in Scaler                     | VGA to SXGA           | VGA to SXGA             | VGA to UXGA            | SVGA to WUXGA         |  |
| POWER SUPPLY                        | 12-24 VDC             | 100-230 VAC             | 100-230 VAC            | 100-230 VAC           |  |
|                                     | 5.0 - 2.5 A           | 0.7 - 0.4A              | 1.0 - 0.6 A            | 0.7 - 0.4 A           |  |
| ENVIRONMENT (IEC 60945 test method) |                       |                         |                        |                       |  |
| Temperature                         | -15°C to +55°C        |                         |                        |                       |  |
|                                     |                       |                         |                        |                       |  |

| POWER SUPPLY                            | 12-24 VDC   | 100-230 VAC   | 100-230 VAC | 100-230 VAC   |  |  |
|---|---|---|-------------|---|--|--|
|   | 5.0 - 2.5 A   | 0.7 - 0.4A  | 1.0 - 0.6 A | 0.7 - 0.4 A   |  |  |
| ENVIRONMENT (IEC 60945 test method)     |   |   |             |   |  |  |
| Temperature                             | -15°C to +55°C  |   |             |   |  |  |
| Waterproofing                           | IP22  |   |             |   |  |  |
| EQUIPMENT LIST                          | Standard 1. Display Unit 2. Flush Mount Kit (for fixing at rear) 3. Installation Materials, Accessories and Spare Parts Option 1. Cable Assembly 2. Bracket Assembly (w/knobs) 3. Hood Assembly | Standard 1. Display Unit 2. Flush Mount Kit (for fixing at front) 3. Installation Materials, Accessories and Spare Parts Option 1. Cable Assembly 2. Bracket Assembly (w/knobs for MU-190) 3. Hood Assembly 4. Dust Cover 5. Flush Mount Kit (for fixing at rear) |             | Standard 1. Display Unit 2. Installation Materials, Accessories and Spare Parts Option 1. Cable Assembly 2. Bracket Assembly 3. Hood Assembly 4. Dust Cover 5. Flush mount Kit (for fixing at rear) |  |  |
| *************************************** | Anlind nutrida  |   |             | •   |  |  |

#### **DIMENSIONS AND WEIGHT**



287 11 3'

328 12.9"

134

287 11.3

341 13.4"

Handle

(option) 135 5.3"

814 32.0"



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