

# WAVE 19" MONITOR

The Wave Monitors are a series of well-designed, rugged LED displays. Our monitors are built following a modular approach, making them suitable for OEM as well as Private Label versions.

Our displays can be flush mounted with a panel mounting kit or standing with hinge mounted to table. It can even be mounted with hinge hanging from the roof (no HMI). Sunshade and Vesa adaptor are also available.

All our monitors are provided with AC/DC inputs and can even be used as a part of a UPS system. For improved performance and reliability backlight is based on LED technology.



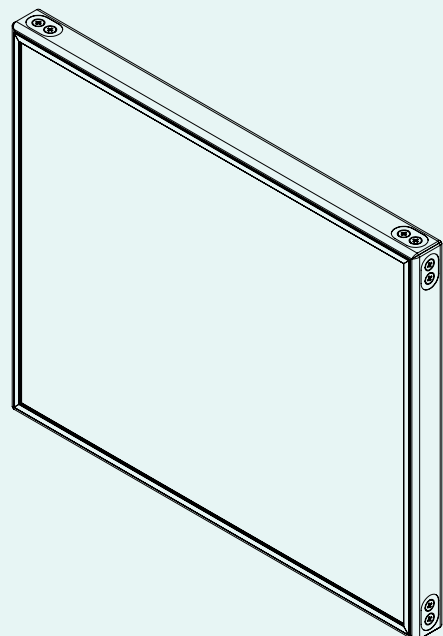
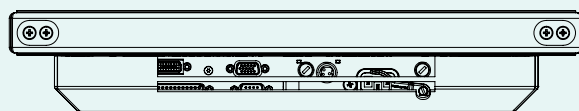
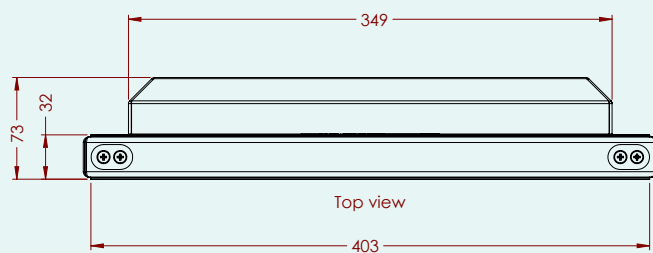
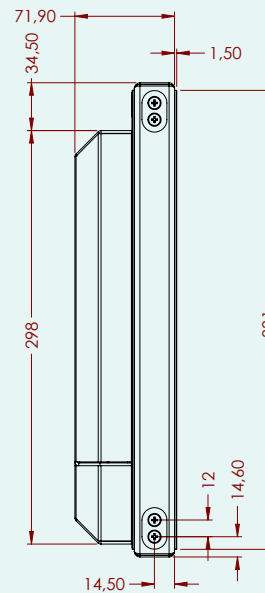
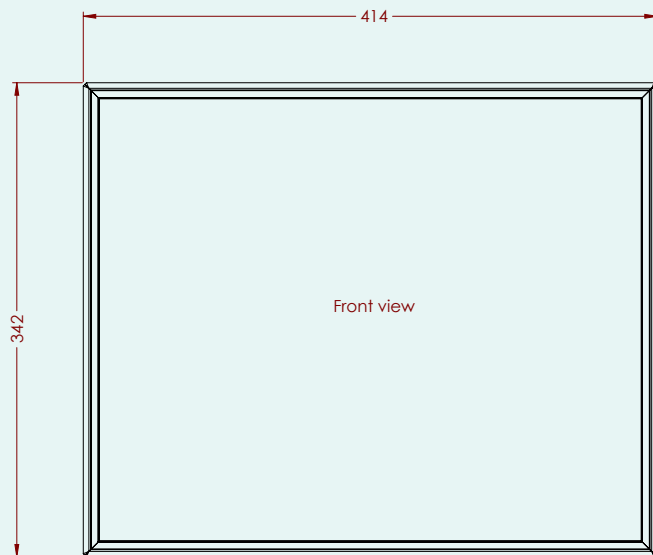
## TECHNICAL SPECIFICATIONS 19" WAVE MONITOR

<b>MATCHING STANDARDS</b>	IEC 60945, IEC 61174 (ECDIS), IEC 60936 (RADAR), IEC 62.288, IEC 62.388, IEC 60529 (IP), IACS E10. Designed to comply with MIL-STD-810F & MIL-STD-901D. Reports available on request.
<b>DISPLAY SIZE</b>	19.0" - 482.6 mm, active area 376.32 (Hor) x 301.06 (V) mm
<b>OVERALL DIMENSIONS</b>	414 (W) x 342 (H) x 73.4 (D) mm - console mounting (ex mounting kit) 414 (W) x 377 (H) x 73.4 (D) mm - with Hinge (ex HMI)
<b>NET/GROSS WEIGHT</b>	7,9 Kg (monitor with hinge and HMI)
<b>RESOLUTION</b>	Max 1280 x 1024 pixels (SXGA)
<b>SYNCHRONISATION</b>	Separate/Composite, 15-100 kHz (H), 30-65 Hz (V)
<b>RESPONSE TIME</b>	20 ms
<b>CONTRAST RATIO</b>	2000:1 (typ)
<b>DOT PITCH</b>	0.294 (H) x 0.294 (V) mm
<b>LIGHT INTENSITY</b>	300 cd/m2 (typ)
<b>NUMBERS OF COLOURS</b>	16.7 Millions depending on graphics card
<b>VIEWING ANGLE</b>	±89°
<b>CONTROLS KNOBS</b>	Lock, +, -, (Brilliance), Set, Menu and Power
<b>INDICATORS</b>	Power indicator, AC or DC
<b>DC VOLTAGE OUT</b>	12 VDC, 30W, connector KPXJ-3S, matching male connector KPPX-3P
<b>SUPPLY VOLTAGE</b>	90-264 VAC, 24 VDC -20/+30%
<b>POWER CONSUMPTION</b>	App.45 W (AC) / 45 W (DC)
<b>COLOURS</b>	Front & back: RAL 9005 structure. Stand RAL 9005 structure.
<b>ENCLOSURE PROTECTION</b>	IP 42
<b>GLASS TYPE</b>	Conturan® or Glacier AR antiglare coated
<b>CONTROL INPUT</b>	RS 232 D-SUB 9 pin female
<b>OPERATING/STORAGE TEMP.</b>	-15/+55° C. +5/131° F (IEC 60945) / -20/+60° C. -4/140° F
<b>INPUT</b>	DVI-I (Analogue and Digital), VGA, Composite video, S-Video, AC power IEC Inlet & DC screw terminal
<b>BACKLIGHT LIFE</b>	Typ. 50.000 hours
<b>DIMMING RANGE</b>	0-100%
<b>ACCESSORIES</b>	Sunshade WA190-01.SUN.01, Panel Mounting Kit WA190-01.PAN.01, Panel Mounting Kit incl HMI WA190-02.PAN.01, Vesa adaptor WA190-01.VES.01
<b>CONFIGURATION-0001 FLUSH MOUNTED</b>	
<b>CONFIGURATION-1001 MOUNTED ON HINGE (NO HMI)</b>	
<b>CONFIGURATION-2001 MOUNTED ON HINGE (WITH HMI)</b>	
<b>CONFIGURATION-3001 TOP MOUNTED HINGE (NO HMI)</b>	
<b>CONFIGURATION-4001 PANEL MOUNTED WITH INTEGRATED HMI</b>	
<b>CONFIGURATION-5001 PANEL MOUNTED WITHOUT INTEGRATED HMI</b>	

# WAVE 19" MONITOR

WAVE 19" FLUSH MOUNTED: WA190-01.MON.01-0001

Note: All dimensions are in mm.



The following is enclosed in a standard delivery:

1 x WA190-01.MON.01-5001, 19,0" Monitor

1 x User Manual for Wave Monitors (identical for 19", 21.5", 24 & 27" monitors) 1 x Power AC Cable / 1 x DC plug / 1 x VGA Cable

WA190-DS-REV3.0-01.2015

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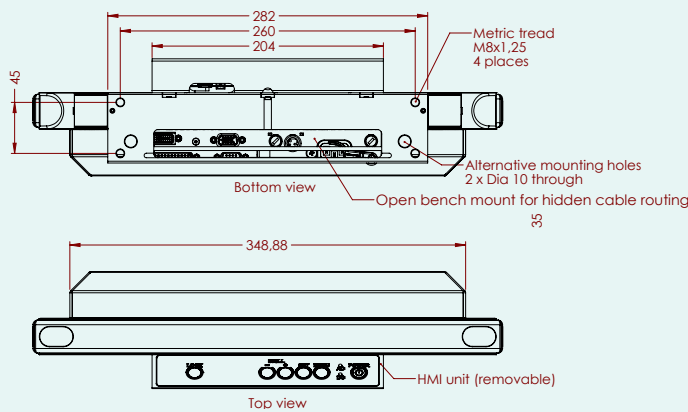
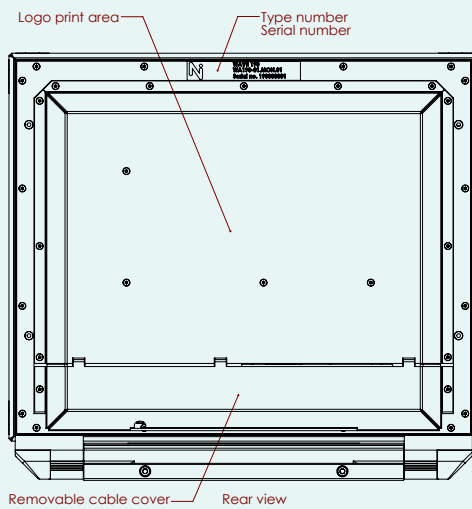
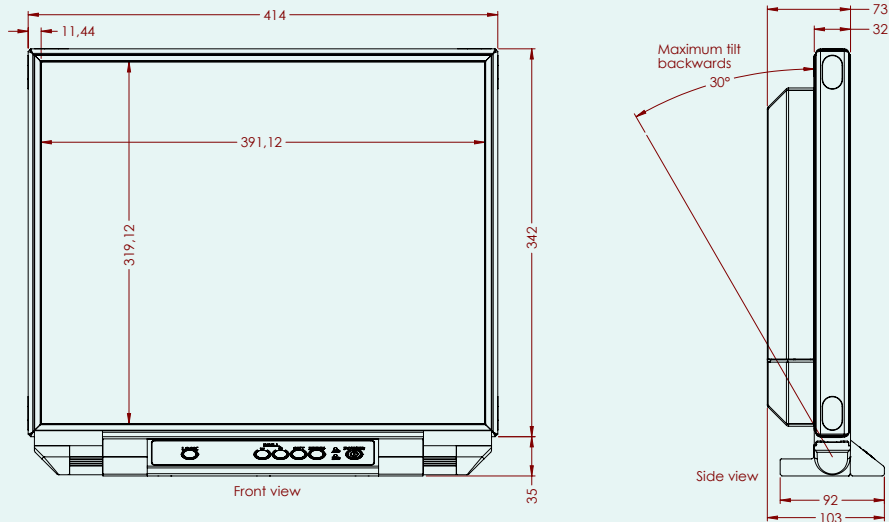
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 Phone: + 47 48 84 02 00



# WAVE 19" MONITOR

WAVE 19" WITH HINGE: WA190-01.MON.01-1001 (NO HMI) OR WA190-01.MON.01-2001 (WITH HMI)

Note: All dimensions are in mm.



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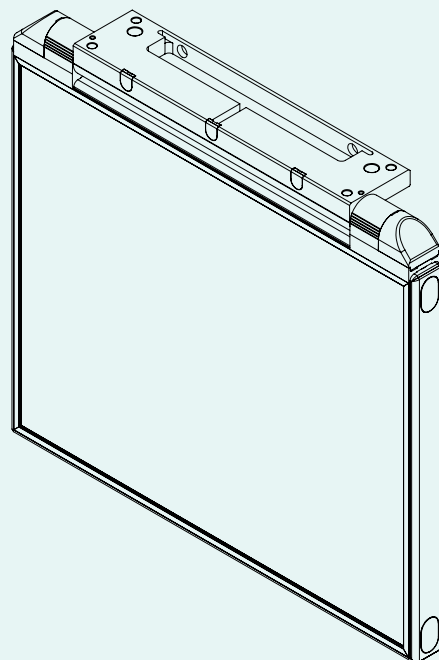
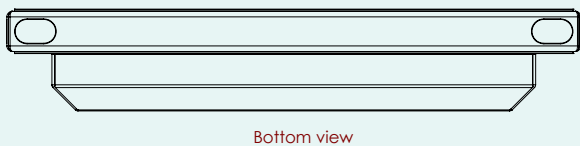
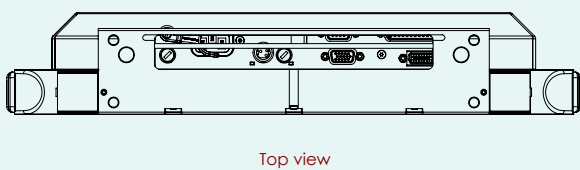
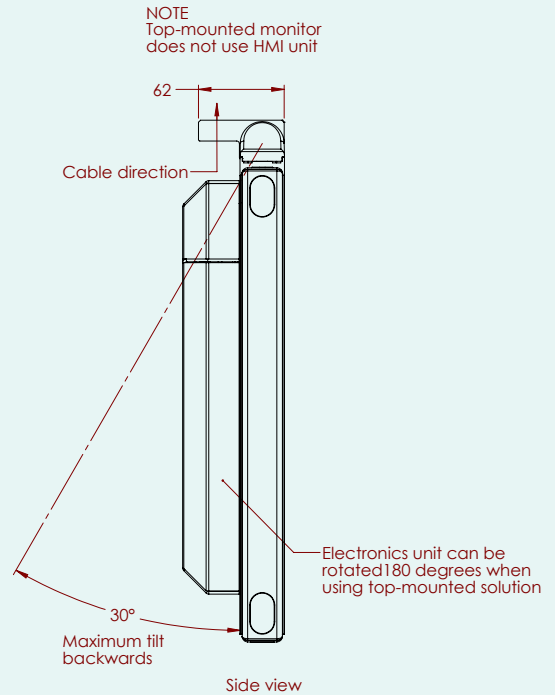
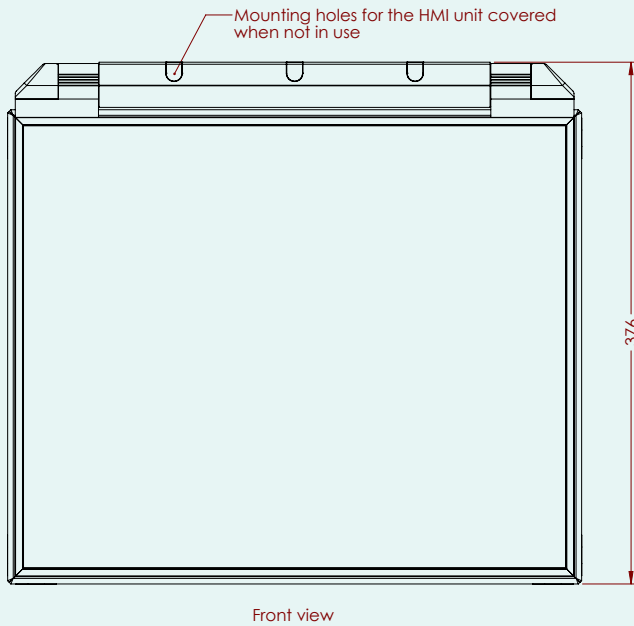
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# WAVE 19" MONITOR

## WAVE 19" WITH TOP MOUNTED HINGE: WA190-01.MON.01-3001

Note: All dimensions are in mm.



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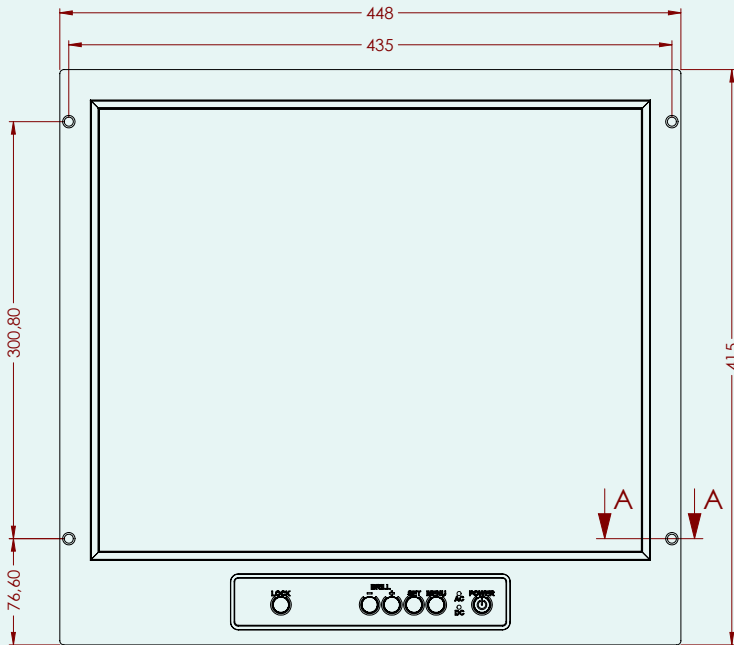
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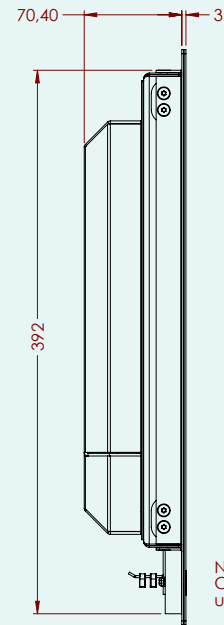
# WAVE 19" MONITOR

## WAVE 19" PANEL MOUNTED WITH INTEGRATED HMI: WA190-01.MON.01-4001

Note: All dimensions are in mm. Outer dimensions are flexible.

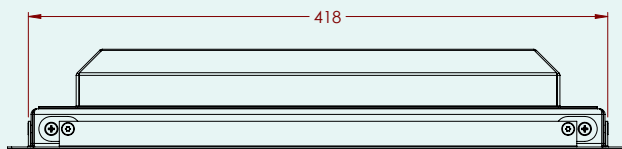


Front view

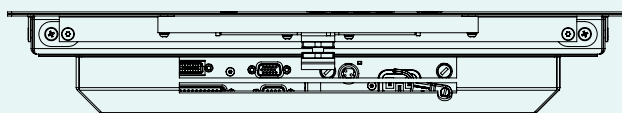


Side view

NOTE  
Cable from the HMI  
unit is not shown

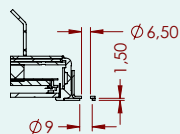


Top view



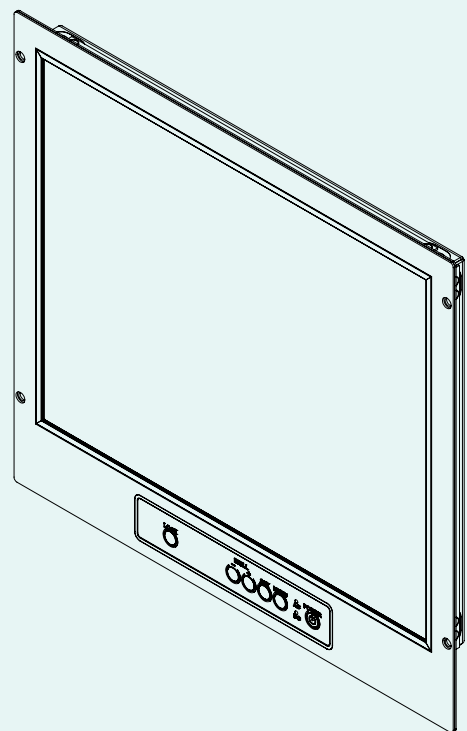
Bottom view

Mounting hole



Recommended screw  
Countersunk flat head screw  
ISO 7046 M4 X L

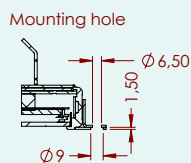
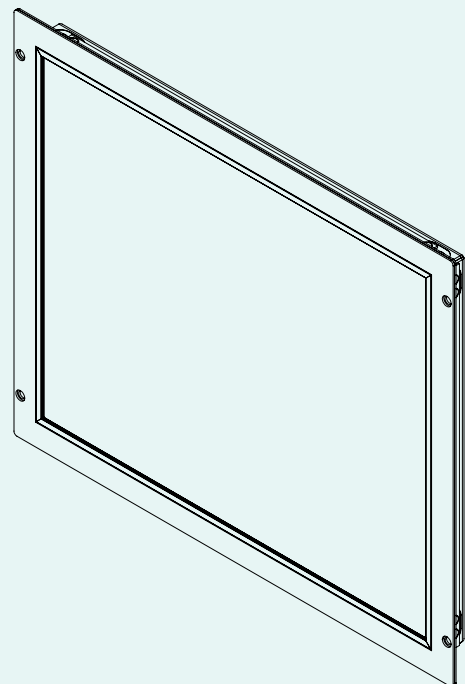
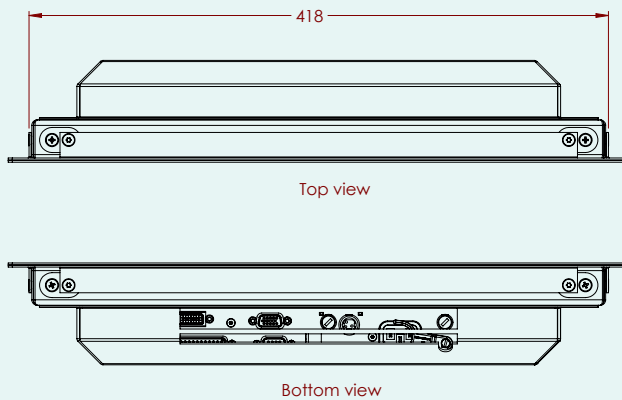
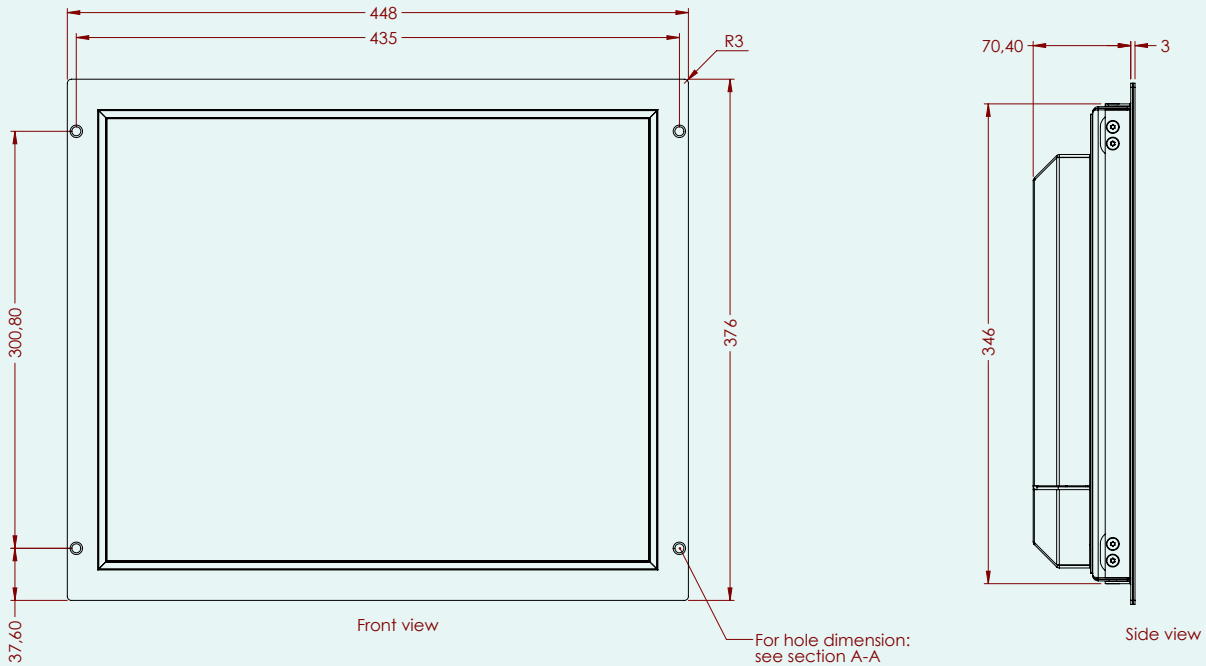
SECTION A-A



# WAVE 19" MONITOR

WAVE 19" PANEL MOUNTED WITHOUT INTEGRATED HMI: WA190-01.MON.01-5001

Note: All dimensions are in mm. Outer dimensions are flexible.



Recommended screw  
 Conter sunk flat head screw  
 ISO 7046 M4 X L  
**SECTION A-A**

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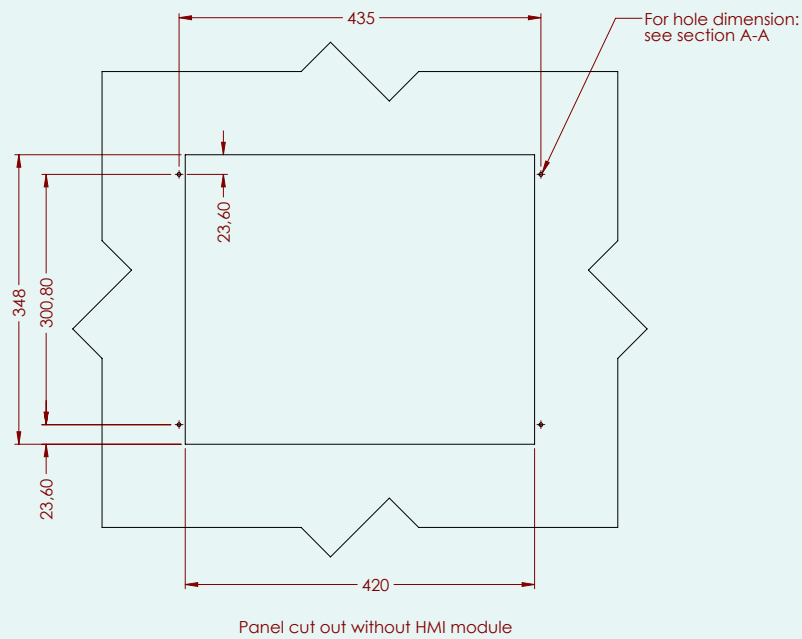
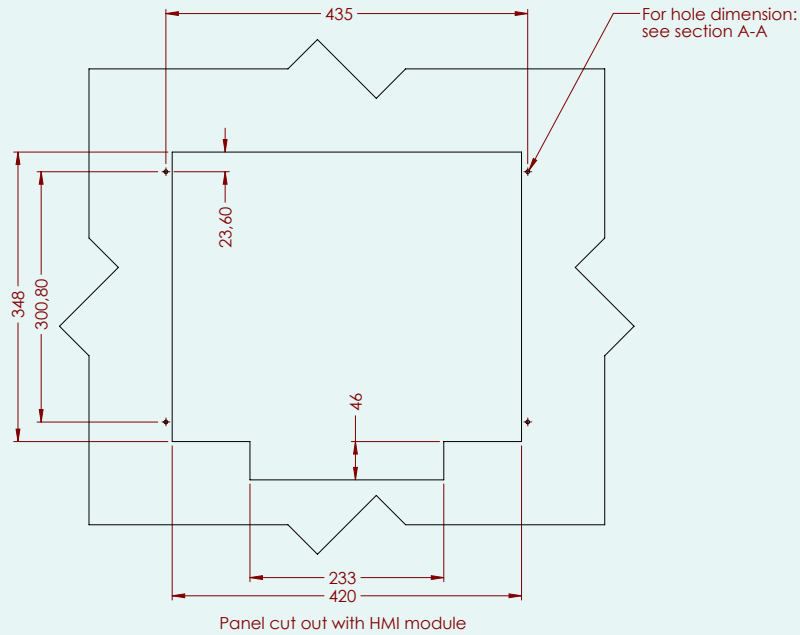
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# WAVE 19" MONITOR

## WAVE 19" PANEL CUT OUT FOR PANEL MOUNTING KITS

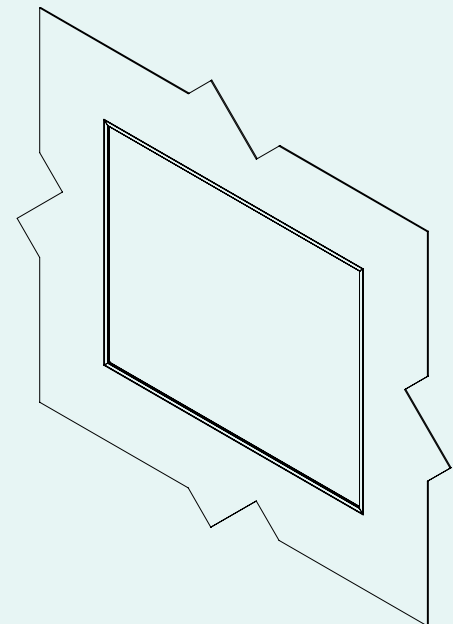
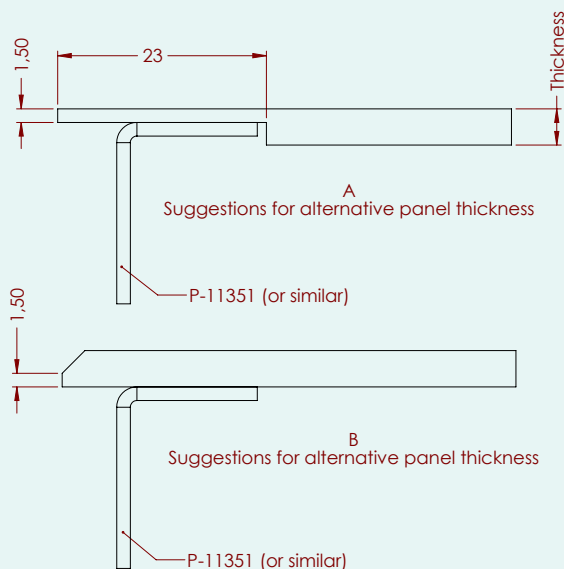
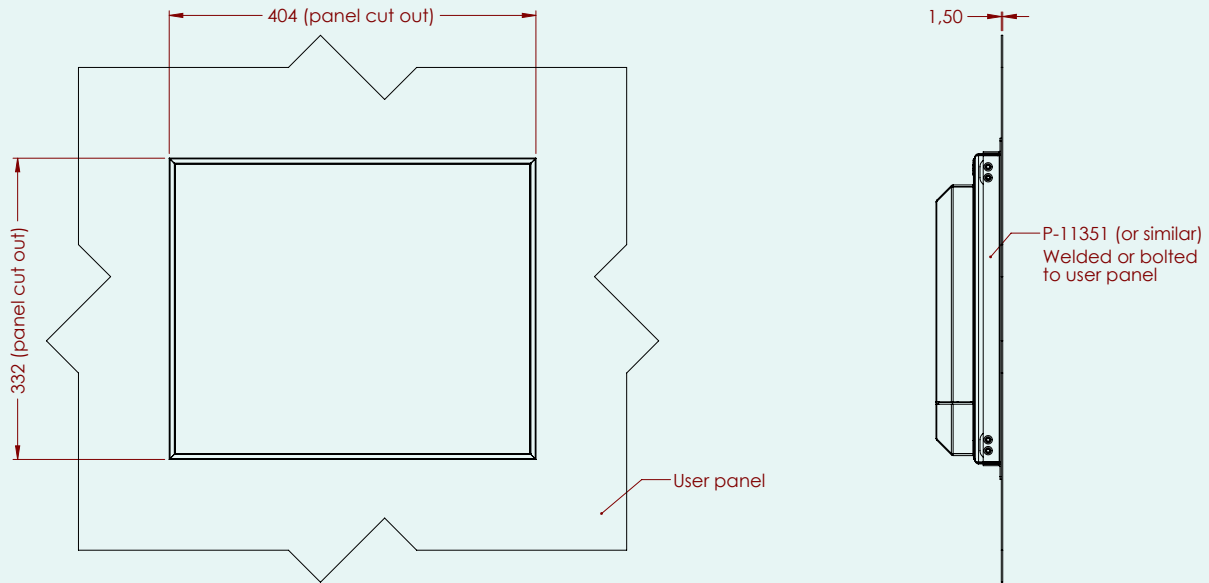
Note: All dimensions are in mm.



# WAVE 19" MONITOR

## WAVE 19" PANEL CUT OUT FOR FLUSH MOUNTING FROM BACKSIDE

Note: All dimensions are in mm.



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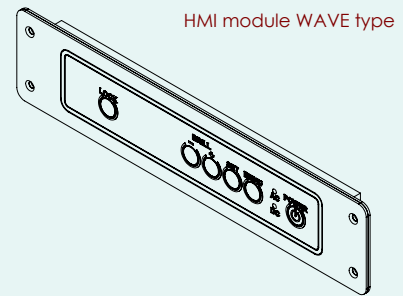
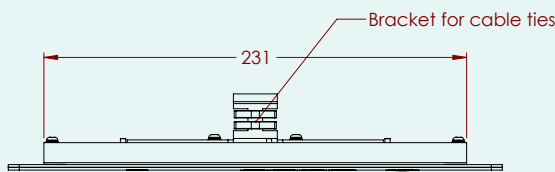
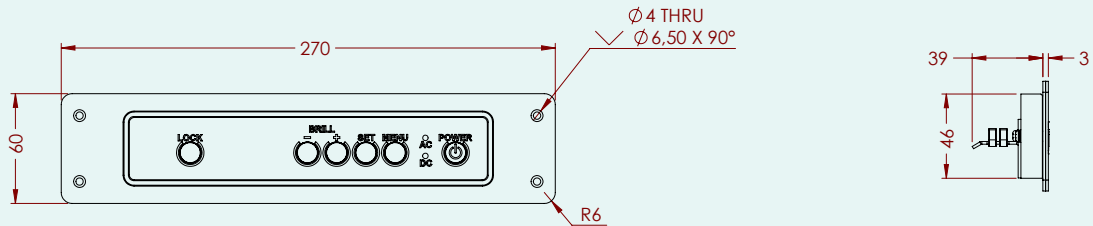




# WAVE 19" MONITOR

## WAVE 19" HMI STAND ALONE CUT OUT: WA-01.HMI.02.0001

Note: All dimensions are in mm.



Only for use with panel mounted monitor

