



- High quality image with wide viewing angle.
- -20°C to +60°C operating temperature range.
- Sunlight readable screen and touch-screen.
- Real backlight control, to overcome night blindness.
- 7V to 36V input voltage, with transient protection.
- Designed for continuous vibration environments.
- IP-65 sealed against dust and water.
- Standard VESA mount.

## Specifications

### Display Characteristics

<b>Viewable area:</b>	10.4-inch (diagonal). 4:3 aspect ratio. 210.4mm wide x 157.8mm high.
<b>Native resolution:</b>	1,024 x 768. Dot pitch: 0.2025mm x 0.2025mm.
<b>Contrast ratio:</b>	1,200:1 typ. 900:1 min.
<b>Colours:</b>	24-bit (16.7 million).
<b>Response time:</b>	Ton: 30ms typ. Toff: 10ms typ.
<b>Brightness:</b>	500 nits typ.
<b>Viewing angle:</b>	Horizontal: 176° typ, 160° min. Vertical: 176° typ, 160° min.

### LCD Controller

<b>Video input interface:</b>	VGA: Analog RGB, 0.7Vp-p.
<b>Input resolutions:</b>	640x480, 800x600, 1,024x768 and 1,280x1,024. The LCD monitor automatically scales the input signal.
<b>Vertical frequency:</b>	60Hz, 70Hz. 60Hz is recommended for most applications.
<b>Configuration:</b>	On-Screen Display (OSD). Includes Contrast Ratio, Brightness, H-position, V-position, Clock Phase and Colour Balance.

### User Interface

<b>Monitor controls:</b>	Front panel buttons are: Power On/Off, Backlight Brightness Adjustment Up and Down, OSD Menu.
<b>OSD:</b>	(On Screen Display) menu controls OSD menu control buttons are: Menu/Select, Left and Right.

### Audio

<b>Speaker:</b>	Front panel mounted speaker, with internal fixed-gain amplifier. The speaker is intended for connection to a PC, for operator feedback and warning tones. This is a high quality speaker, not a low-cost piezo.
<b>Microphone:</b>	Optional front panel mounted microphone, with internal pre-amplifier. The microphone is intended for connection to a PC, for audio recording or use in emergencies.

## Specifications cont'd

### Touch Screen

<b>Glass thickness:</b>	1.85mm.
<b>Operation force:</b>	<50g with a stylus of 0.8mm radius.
<b>Linearity:</b>	<= 1.5% for both X-axis and Y-axis.
<b>Impact:</b>	No damage with a 9g steel ball dropped into the centre of the panel, from a height of 30cm. Static load: 5kg load over a 10mm area for 10 seconds.
<b>Hardness:</b>	>=3H. 3H pencil pressure, 1n @ 45°.

### Touch Screen Controller

<b>Resolution:</b>	2,048 x 2,048.
<b>Report rate:</b>	Maximum 160 points/second (RS232).
<b>Resolution:</b>	2,048 x 2,048.
<b>Response time:</b>	20ms.
<b>Data rate:</b>	9,600 bps 8N1.
<b>Interface:</b>	RS232 (EIA/TIA-232-F) or USB. Both interfaces are transient protected.

### Touch Screen Driver

<b>Calibration:</b>	4, 9 or 25 point.
<b>Mouse emulation:</b>	Right and left button emulation.
<b>Sound notification:</b>	Beep on touch down, up. Or none.

### Physical Characteristics

<b>Dimensions:</b>	264mm W x 225mm H x 49mm D.
<b>Weight:</b>	1.5 Kg typical.
<b>Temperature:</b>	Operating: -20°C to +60°C. Storage: -40°C to +80°C.
<b>Humidity:</b>	10% to 90% RH, non condensing.
<b>Certification:</b>	C-tick, FCC, CE.

### Power

<b>Input voltage:</b>	7V DC to 36V DC.
<b>Power consumption:</b>	13W typ with full brightness.
<b>Digital input:</b>	Controls power on off. This signal does not place the product into a low power state, it turns the main voltage regulator off, resulting in uA power consumption.
<b>Transient protection:</b>	Load dump and other transients specified in ISO-7367.