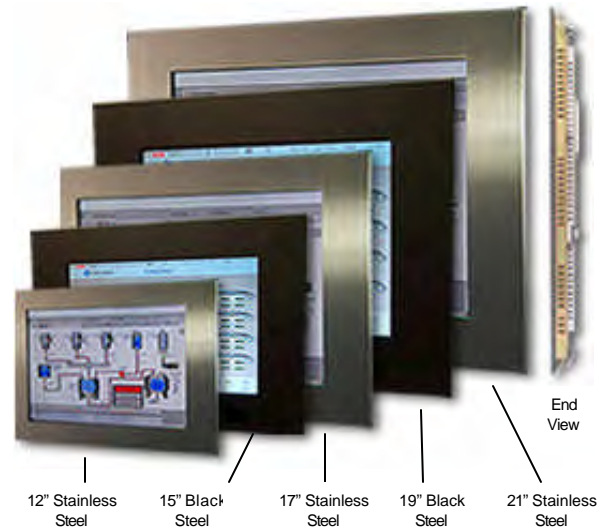


### Product Description

The Panel Mount Industrial LCD Monitors have been designed to provide the industrial user with superior picture quality and practical features housed in a rugged industrial enclosure which will assure reliable operation in most factory environments. With depths of only 1.6" to 2.2", these Panel Mount monitors easily fit into tight spaces. And high-resolution displays offer the industrial user the optimal trade-off between screen size and cost.

### Features

- 12", 15", 17", 19" or 21.3" LCD display
- NEMA 4/12 or NEMA 4/4X/12
- Black Steel or Stainless Steel faceplates
- High resolution, High brightness and Contrast
- Long-life backlights
- Tempered glass, anti-reflective window
- Touch screen option
- Only 1.6" to 2.2" deep
- Panel mount without drilling stud holes
- Rack mount option
- 6 ft. cables included (Up to 100 ft. available)



### About Industrial Monitor Systems

Industrial flat panel monitors and touchscreens that have 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.

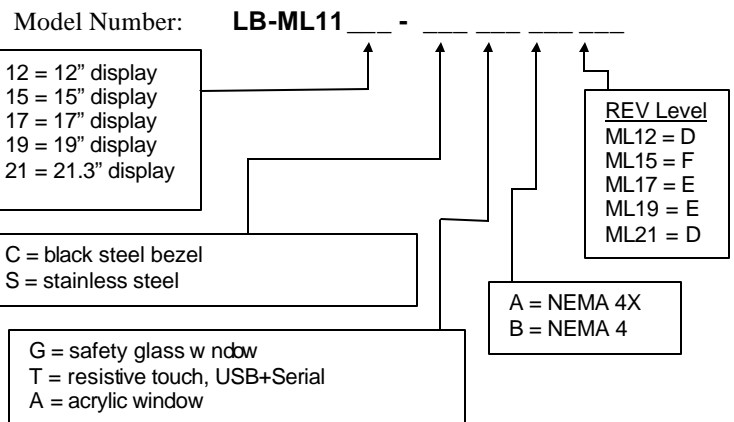
We assure our customers of high reliability over time and back it up with an industry-leading warranty.

We provide all of these benefits at a price that is not much higher than office-grade products and significantly less than comparable industrial offerings.

And finally, we offer the best sales, support and service in the industry.

- 3-year limited warranty
- 24-48-hour repair turnaround (most models)
- Same-day shipment (most models)
- 30-day money-back guarantee

### Ordering Numbers



- Accessories :
- Cable options 15 to 100 ft. (1000 ft. with KVM extender option)
  - Screen Protectors (all sizes)

# Specifications

## LB-ML12, LB-ML15, LB-ML17, LB-ML19, LB-ML21

| Display   |  |  |                                    |   |
|---|--|--|------------------------------------|---|
| Type  | Thin-film transistor (TFT) Active Matrix Liquid Crystal  |  | Sizes                              | 12.1", 15.0", 17.0", 19.0", 21.3"   |
| Image Size (W x H)  | ML12: 9.7" (246mm) x 7.3" (184.5mm)<br>ML15: 12.0" (304mm) x 9.0" (228mm)<br>ML17: 13.3" (338mm) x 10.6" (270mm)<br>ML19: 14.8" (376mm) x 11.9" (301mm)<br>ML21: 17.0" (432mm) x 12.75" (324mm)  |  | Native resolution                  | ML12: SVGA (800 x 600)<br>ML15: XGA (1024 x 768)<br>ML17: SXGA (1280 x 1024)<br>ML19: SXGA (1280 x 1024)<br>ML21: UXGA (1600 x 1200)  |
| Pixel pitch   | ML12: 0.308mm ML15: 0.297mm<br>ML17: 0.264mm ML19: 0.294mm<br>ML21: 0.270mm  |  | Number of colors                   | ML12: 262,144<br>ML15/ML17/ML19/ML21: 16.2 million  |
| Brightness (white), typical   | ML12: 200 nits (cd/m <sup>2</sup> ) ML15: 250 nits (cd/m <sup>2</sup> )<br>ML17: 300 nits (cd/m <sup>2</sup> ) ML19: 300 nits (cd/m <sup>2</sup> )<br>ML21: 300 nits (cd/m <sup>2</sup> )  |  | Viewing Angle (Hori/Vert), typical | ML12: 130° / 100° ML15: 160° / 115°<br>ML17: 160° / 160° ML19: 160° / 160°<br>ML21: 170° / 170°   |
| Contrast Ratio (typical)  | ML12: 500:1 ML15: 500:1<br>ML17: 600:1 ML19: 700:1<br>ML21: 900:1  |  | Back lights, Brightness half-life  | ML12, ML15: 2 CCFTs, 50,000 hours<br>ML17, ML19: 4 CCFTs, 50,000 hours<br>ML21: 6 CCFTs, 50,000 hours   |
| Screen protector (non touchscreen units)                            | Tempered glass to ANSI-Z97.1 SPEC; AR coated both sides; 98% Transmission of light; 99% Reduction of glare; 53% UV blocking; 30% NIR Blocking; proprietary hydrophobic coating reduces fingerprints, repels liquid spills and makes glass easy to clean. |  |                                    |   |
| Video   |  |  |                                    |   |
| Input connector   | HD-15 (all models)<br>DVI, digital, S-VIDEO, Composite (ML21)  |  | Input signal format                | RGB Analog video 0 – 0.7V p-p – sep V and H (all models), composite sync (ML17, ML21), sync on green (ML17, ML21); DVI (ML21)   |
| Horizontal scan   | ML12: 31-38kHz ML15: 30-82kHz<br>ML17: 30-81kHz ML19: 30-82kHz<br>ML21: 30-81kHz   |  | Vertical scan                      | ML12: 60-75Hz ML15: 50-85Hz<br>ML17: 56-75Hz ML19: 50-85Hz<br>ML21: 56-75Hz   |
| Maximum Video Resolutions All models support standard VGA (640x480) | ML12: SVGA – (800 x 600)<br>ML15: XGA - 1024x768 @ 60Hz<br>ML17, ML19: SXGA - 1280x1024 @ 60Hz<br>ML21: UXGA - 1600x1200 @ 60Hz  |  | Response rate (typical)            | ML12: 10ms ML15: 12ms<br>ML17: 8ms ML19: 8ms<br>ML21: 8ms   |
| Electrical  |  |  |                                    |   |
| Monitor Power input   | ML12: Power adapter, 100–240VAC, 50–60Hz<br>ML15/ML17/ML19/ML21: AC input, 100–240VAC, 50–60Hz   |  | Power Consumption                  | ML12: 20W ML15: 23W<br>ML17: 34W ML19: 33W<br>ML21: 66W   |
| Power Management  | DPMS/energy star, < 1W (ML15, ML17, ML19)<br>DPMS/energy star, < 2W (ML21)   |  | Compliance                         | UL 60950 3rd Edition; cUL recognized component; FCC Class A; CE (17" and 19" models); RoHS (ML12, ML15, ML17, ML19)   |
| Enclosure   |  |  |                                    |   |
| Type  | Panel mount; rear collar compresses gasket against panel, held by M5 studs   |  | Panel rating                       | Powder Coated Carbon Steel – NEMA 4/12<br>Stainless Steel – NEMA 12/4/4X<br>Built to IP65 standards   |
| Environmental   |  |  |                                    |   |
| Temperature   | ML12/ ML15/ML17/ML21: 0-50°C<br>ML19: 0-45°C (consult factory when continuous 24/7 operation is over 40°C)   |  | Humidity                           | 20% to 90% non-condensing   |
| Shock   | 30g (1/2 sine, 11 msec.)   |  | Vibration                          | 0.006 inch p-p 15-57Hz, 1.0g 57-640Hz sine  |
| Altitude  | Operating: up to 10,000 feet; Non-operating: up to 40,000 feet   |  |                                    |   |
| Functional  |  |  |                                    |   |
| Panel controls (rear access)  | Power On/Off switch, Control Function Switches   |  | OSD (On Screen Display)            | Phase, pitch, H/V-Center, Zoom, Color Temp., Language, OSD position, Back Light, Factory Preset, other options by model   |
| Touch screen option   | 5-wire resistive system; emulates a mouse; Serial RS-232 or USB interface to host computer   |  | Rack mount option                  | ML15: Separate rack mount version available (RL15)<br>ML12/ML17: Optional adapter panel<br>ML19: Fits in a standard 19" EIA rack, 9U height   |
| Physical  |  |  |                                    |   |
| Depth behind panel  | ML12 – 1.6" (2.5" at connectors)<br>ML15: 2.1" ML17: 1.8" ML19: 2.15" ML21: 2.2"   |  | Bezel                              | Black or stainless steel  |
| Front bezel outside dimensions (excl. gasket)                       | ML12: 13.3"W x 11.6"H x 0.28" thick<br>ML15/ML17: 17.2"W x 13.97"H x 0.28" thick<br>ML19: 19.0"W x 15.70"H x 0.28" thick<br>ML21: 22.28"W x 17.87" x 0.28" thick   |  | Cutout dimensions                  | ML12: 12.12" (308mm) W x 10.35" (263mm) H<br>ML15/ML17: 16.02" (406mm) W x 12.72" (323mm) H<br>ML19: 17.85" (454mm) W x 14.44" (367mm) H<br>ML21: 21.13" (537mm) W x 16.70" (424mm) H |
| Net Weight  | ML12 – 8 lbs. ML15 – 13.30 lbs. ML17 – 14.35 lbs.<br>ML19 – 18.15 lbs ML21 – 24.40 lbs.  |  | Shipping Weight                    | ML12 – 13 lbs ML15 – 18 lbs. ML17 – 19 lbs.<br>ML19 – 23 lbs. ML21 – 30 lbs.  |