# Atlas Industrial Flat Panel PC Monitors

## ATM1700 /ATM1700T

The Atlas ATM1700/ATM1700T is a high performance 17" color TFT flat panel monitor specifically designed for harsh industrial environments including Class I Division 2, Class II Division 2 and Class III Hazardous Locations. The ATM1700/ATM1700T accepts standard analog VGA input, or digital DVI input, and can display all VESA video modes up to 1280 x 1024 at 75Hz, 1000:1 contrast with 16 million colors. An optional 5-wire analog touch screen (ATM1700T) is available that offers both RS-232 and USB interface capability. The monitor is housed in a heavy duty steel chassis with a powder coated machined aluminum bezel. The monitor is certified to NEMA 4/4X/12 standards and is UL/CUL listed. Panel mounting is simplified using convenient mounting clips instead of conventional studs. All monitors are shipped with a power input wiring receptacle, 6' VGA cable, 6' RS-232 cable (ATM1700T only), 2m USB Cable (ATM1700T only), mounting hardware and Quick Installation Guide*.

**\*Visit automationdirect.com for specific operating system requirements.**
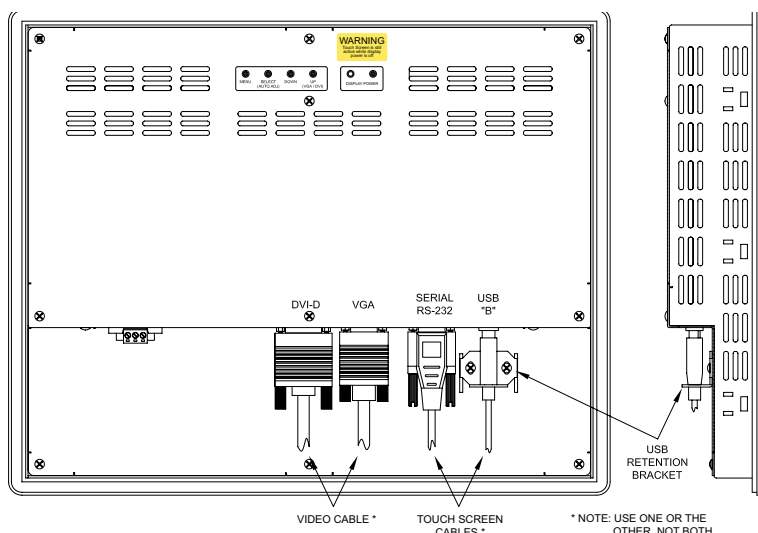
$1,600.00 /$1,855.00

## Specifications

- 17" color TFT LCD display
- UL 508 and ANSI/ISA 12.12.01-2012 listed for Hazardous Locations: Class I, Division 2, Groups A, B, C, D; Class II, Division 2, Groups F and G and Class III hazardous locations when mounted in a NEMA Type 1, 4, 4X or 12 enclosure
- NEMA 4/4X/12 front bezel
- 2-year warranty
- Integral 100-240 VAC power supply
- Simplified installation with no studs
- Thin design - only 2.4" behind bezel
- Accepts analog 15-pin Video input, digital input DVI-D
- VESA compliant - all modes up to SXGA, 16 million colors
- Optional 5-wire resistive touch screen with both RS-232 and USB interface
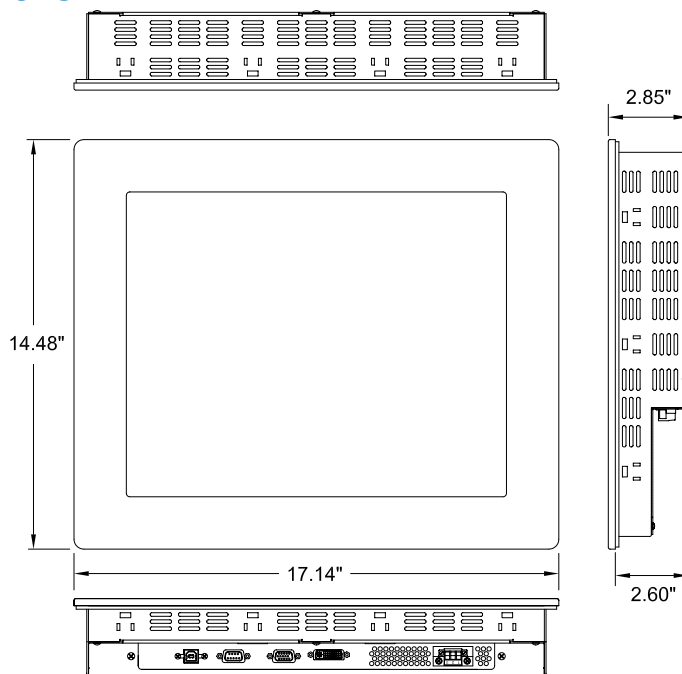
*NOTE: Don't forget the optional cables shown on the Accessories page.*

## Dimensions



14.48"

17.14"

2.85"

2.60"

## Mounting Cutout



CUTOUT

13.70" ±.02"

16.35" ±.02"

## Cable Connections



WARNING
Touch Screen is still active while display power is on!

DVI-D   VGA   SERIAL RS-232   USB "B"

USB RETENTION BRACKET

VIDEO CABLE *   TOUCH SCREEN CABLES *   * NOTE: USE ONE OR THE OTHER. NOT BOTH.

For the latest prices, please check AutomationDirect.com.

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## LCD Monitor Specifications

**atlas**

| LCD Monitor Specifications | | | | | | |
|---|---|---|---|---|---|---|
| **Part Numbers** | ATM1500 | ATM1500T | ATM1700 | ATM1700T | ATM1900 | ATM1900T |
| **Nominal Size** | 15" | | 17" | | 19" | |
| **Price** | $1,269.00 | $1,523.00 | $1,600.00 | $1,855.00 | $1,981.00 | $2,237.00 |
| **DISPLAY** | | | | | | |
| **Display Type** | TFT Active Matrix | | | | | |
| **Display Diagonal Size** | 14.96" (380 mm) | | 17.04" (432.8 mm) | | 18.97" (481.8 mm) | |
| **Display Size (Active Area H x W)** | 8.98" x 11.97" (228.1 mm x 304.0 mm) | | 10.64" x 13.30" (270.3 mm x 337.8 mm) | | 11.85" x 14.82" (301.0 mm x 376.4 mm) | |
| **Native Resolution** | XGA, 1024 x 768 | | SXGA, 1280 x 1024 | | | |
| **VESA Modes Supported** | Up to 1280 x 1024 @75Hz | | | | | |
| **Displayable Colors** | 16M | | | | | |
| **Brightness, Typical** | 250 Nit | | 300 Nit | | 270 Nit | |
| **Contrast Ratio, Typical** | 800:1 | | 1000:1 | | 2000:1 | |
| **Horizontal/Vertical View Angle, CR>5, Typical** | 150°/145° | | 170°/170° | | 178°/178° | |
| **Backlight Life** | 50,000 hrs, Minimum | | | | | |
| **Display Input Signal** | Analog 15-Pin D-Sub, DVI-D | | | | | |
| **Impact Window** | 0.125" (3.2 mm) Lexan (polycarbonate), clear hard coat | | | | | |
| **PHYSICAL** | | | | | | |
| **Overall Monitor Dimensions (H x W x D)** | 12.80" x 15.80" x 2.65" (325.1 mm x 401.3 mm x 67.3 mm) | | 14.48" x 17.14" x 2.85" (367.8 mm x 435.4 mm x 72.4 mm) | | 15.70" x 18.66" x 2.95" (398.8 mm x 474.0 mm x 74.9 mm) | |
| **Cutout Dimensions (H x W)** | 12.00" x 15.00" (304.8 mm x 381.0 mm) | | 13.70" x 16.35" (348.0 mm x 415.3 mm) | | 14.90" x 17.75" (378.5 mm x 450.9 mm) | |
| **Chassis Depth** | 2.4" (61.0 mm) | | 2.6" (66.0 mm) | | 2.7" (68.6 mm) | |
| **Bezel Construction** | 0.25" (6.4 mm) Machined Aluminum with recessed gasket pocket | | | | | |
| **Bezel Finish** | Dark Gray Textured Powder Coated | | | | | |
| **Chassis Construction** | 16 Gauge CRS Steel | | | | | |
| **Weight** | 14.0 lbs (6.4 kg) | | 18.5 lbs (8.4 kg) | | 21 lbs (9.5 kg) | |
| **Shipping Weight** | 19 lbs (8.6 kg) | | 23.5 lbs (10.7 kg) | | 26 lbs (11.8 kg) | |
| **ELECTRICAL** | | | | | | |
| **AC Input Voltage** | 100 - 240 VAC, 50/60 Hz | | | | | |
| **AC Input Current** | 0.5A Maximum | | 1A Maximum | | | |
| **Input Power** | ≤ 25W | | ≤ 30W | | ≤ 35 W | |
| **ENVIRONMENTAL** | | | | | | |
| **Operating Temperature** | 0 to 50 °C (32 to 122 °F) | | | | | |
| **Storage Temperature** | -20 to 60 °C (-4 to 140 °F) | | | | | |
| **Operating and Storage Humidity** | 20% to 80% RH, noncondensing | | | | | |
| **Operating Shock** | 15g peak acceleration, 11msec | | | | | |
| **Operating Vibration 5-2000 Hz** | 0.006" peak to peak, 1g max | | | | | |
| **Operating Altitude** | Sea level - 10,000 feet | | | | | |
| **Storage Altitude** | Sea level - 40,000 feet | | | | | |
| **AGENCY** | | | | | | |
| **Front Panel NEMA Rating** | NEMA 4/4X/12, IP65 | | | | | |
| **FCC** | 47 CFR, Part 15, Class A | | | | | |
| **EU Compliance** | EN 55022: Class A, EN 61000-3-2: Class A, EN 61000-3-3, EN 61000-6-2, IEC 60950-1 | | | | | |
| **Safety Agency Approvals** | UL 508 Listed (file #E157382), ANSI/ISA 12.12.01-2012 Listed* (file #E200031), cUL Listed CSA C22.2, #142, CSA C22.2, #143* | | | | | |

\* Suitable for use in Class I, Division 2, Groups A, B, C and D, Class II, Division 2, Groups F and G, Class III Hazardous Locations or Non-Hazardous locations only.
For use on a flat surface of a type 1, 4, 4X or 12 enclosure with provisions for Class I Division 2 wiring methods
Temperature Code: T5

# Atlas Industrial Flat Panel PC Monitors

## LCD Monitor Specifications (cont'd)

| Touch Screen Specifications | | | |
|---|---|---|---|
| **Part Numbers** | **ATM1500T** | **ATM1700T** | **ATM1900T** |
| **TOUCH SCREEN (OPTIONAL)** | | | |
| **Touch Screen Technology** | 5- Wire Analog Resistive | | |
| **Interface** | USB 1.1 and Serial RS-232 | | |
| **Resolution** | 4096 x 4096 | | |
| **Positional Accuracy (Maximum Error)** | 0.18" (4.6 mm) | | 0.19" (4.8 mm) |
| **Positional Accuracy (Standard Deviation of Error)** | <0.08" (<2.0 mm) | | |
| **Screen Finish** | Anti-Reflective, Surface Durability - 3H per ASTM D3363 | | |
| **Chemical Resistance** | Acetone, Methylene Chloride, MEK, Isopropyl Alcohol, Hexane, Turpentine, Mineral Spirits, Unleaded gasoline, Diesel fuel, Motor oil, Transmission fluid, Antifreeze, vinegar, ammonia-based glass cleaner. | | |
| **Electrostatic Protection** | Per EN 61000-4-2, 1995, Withstands 20 discharges up to 15 kV | | |
| **Expected Life** | >35,000,000 Activations | | |

## Supported PC Video Modes

| Video Modes | | | | | | |
|---|---|---|---|---|---|---|
| **Mode** | **Dot Clock (MHz)** | **Horizontal Freq (KHZ)** | **Vertical Freq (Hz)** | **H Sync Polarity** | **V Sync Polarity** | **Display Modes for Best Image Quality** |
| 640 x 350 @ 70Hz | 25.144 | 31.430 | 70.000 | P | N | |
| 640 x 400 @ 70Hz | 28.287 | 31.430 | 70.000 | N | P | |
| 720 x 400 @ 70Hz | 28.287 | 31.430 | 70.000 | N | P | |
| 640 x 480 @ 60Hz | 25.175 | 31.469 | 59.940 | N | N | |
| 640 x 480 @ 72Hz | 31.500 | 37.861 | 59.940 | N | N | |
| 640 x 480 @ 75Hz | 31.500 | 37.500 | 75.000 | N | N | |
| 800 x 600 @ 56HZ | 36.000 | 35.156 | 56.250 | P | P | |
| 800 x 600 @ 60Hz | 40.000 | 37.879 | 60.317 | P | P | |
| 800 x 600 @ 72Hz | 50.000 | 48.077 | 72.188 | P | P | |
| 800 x 600 @ 75Hz | 49.500 | 46.875 | 75.000 | P | P | |
| 1024 x 768 @ 60Hz | 65.000 | 48.363 | 60.005 | N | N | ATM1500/ATM1500T |
| 1024 x 768 @ 70Hz | 75.000 | 56.476 | 70.070 | N | P | ATM1500/ATM1500T |
| 1024 x 768 @ 75Hz | 78.750 | 60.023 | 75.030 | P | P | ATM1500/ATM1500T |
| 1280 x 1024 @ 60Hz | 108.000 | 63.981 | 60.020 | P | P | ATM1700/ATM1700T & ATM1900/ATM1900T |
| 1280 x 1024 @ 75Hz | 135.000 | 79.976 | 75.035 | P | P | ATM1700/ATM1700T & ATM1900/ATM1900T |

# Atlas Industrial Flat Panel PC Monitors

## Mounting clip installation

To install the monitor, make a cutout (according to the cutout diagram for the respective monitor) through one of the walls of your NEMA enclosure. Next, hold the monitor in place and install the mounting clips. The monitor uses "U"-shaped clips and a special gasket to achieve a proper seal. Tighten the clips to the point where the back of the monitor's bezel just begins to contact the front of the NEMA enclosure. The use of an adjustable torque driver is recommended. The screws should be tightened to 8 inch-pounds. Tighten the clips in a cross pattern to develop an even pressure on the sealing gasket. DO NOT OVERTIGHTEN AS DAMAGE CAN RESULT, CAUSING LOSS OF SEALING INTEGRITY.
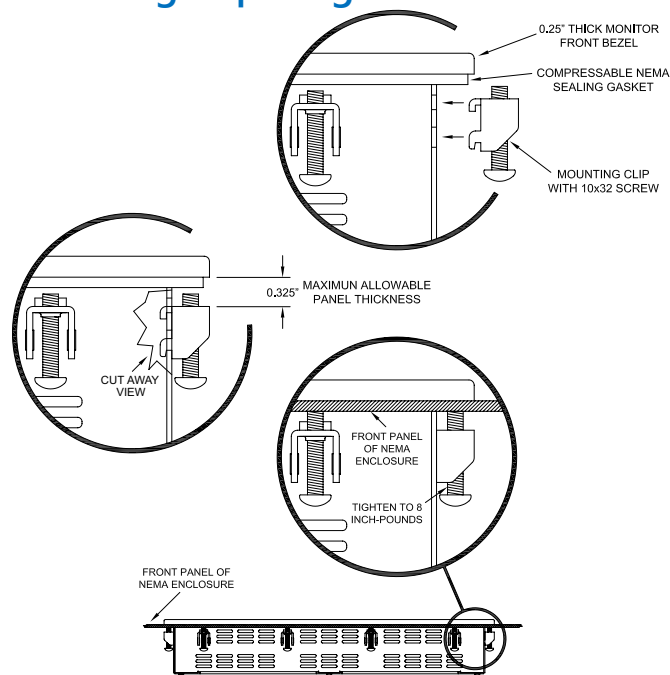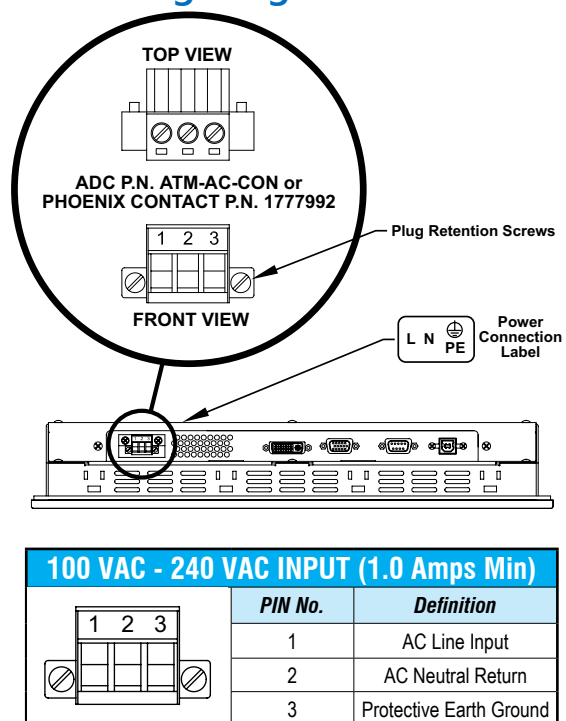
## Connecting power

The monitor is powered from 100-240 VAC, 50/60 Hz. Power is connected to the monitor through a removable Phoenix Contact plug (ADC P.N. ATM-AC-CON or Phoenix Contact P.N. 1777992) that allows for screw termination of field wiring. The use of 18 AWG or greater (12 AWG maximum wore) wire is recommended. Connect the field wiring according to the appropriate table below. After the connections are made, make sure the power cnoconne screws (the two screws shown in the "Front View" below) are securely tightened. This will prevent the plug from pulling out.

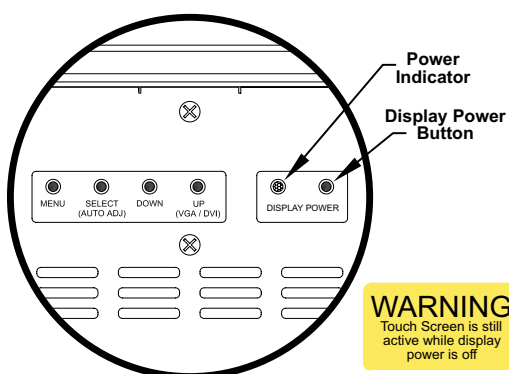## Mounting Clip Diagram



0.25" THICK MONITOR FRONT BEZEL

COMPRESSABLE NEMA SEALING GASKET

MOUNTING CLIP WITH 10x32 SCREW

0.325" MAXIMUN ALLOWABLE PANEL THICKNESS

CUT AWAY VIEW

FRONT PANEL OF NEMA ENCLOSURE

TIGHTEN TO 8 INCH-POUNDS

FRONT PANEL OF NEMA ENCLOSURE

## Power Wiring Diagram



TOP VIEW

ADC P.N. ATM-AC-CON or PHOENIX CONTACT P.N. 1777992

Plug Retention Screws

1  2  3

FRONT VIEW

L N PE  Power Connection Label

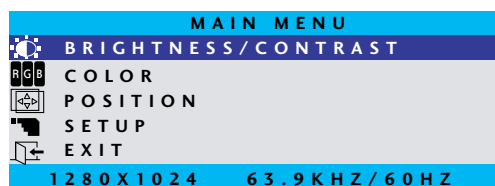| 100 VAC - 240 VAC INPUT (1.0 Amps Min) | | |
|---|---|---|
| | PIN No. | Definition |
| | 1 | AC Line Input |
| | 2 | AC Neutral Return |
| | 3 | Protective Earth Ground |

## Setting the On-Screen Display (OSD) controls

The On Screen Display (OSD) controls are used for making adjustments to the monitor's settings and are located on the back of the monitor. They consist of a single LED and five pushbuttons (functions are described in Chapter 3 of the respective monitor's Hardware User's Guide) downloadable from the Online Documentation area of the AutomationDirect Web site.

## OSD Controls



Power Indicator

Display Power Button

MENU   SELECT (AUTO ADJ)   DOWN   UP (VGA / DVI)   DISPLAY POWER

WARNING
Touch Screen is still active while display power is off

## OSD Main Menu Display



MAIN MENU
BRIGHTNESS/CONTRAST
COLOR
POSITION
SETUP
EXIT
1280X1024      63.9KHZ/60HZ

# Atlas PC Monitor Accessories

## Accessories & Replacement Parts

| Part Number | Description | Price |
|---|---|---|
| ATM-CBL-VGA10 | 10 ft. 15-pin coaxial VGA cable. Connects any Atlas monitor to a standard VGA card. | $57.00 |
| ATM-CBL-VGA25 | 25 ft. 15-pin coaxial VGA cable. Connects any Atlas monitor to a standard VGA card. | $121.00 |
| ATM-CBL-VGA50 | 50 ft. 15-pin coaxial VGA cable. Connects any Atlas monitor to a standard VGA card. | $172.00 |
| ATM-CBL-DV3M | 10 ft. (3 meter) DVI (type D) video cable. Connects M1700 and M1900 to a standard DVI-D port. DVI cables provide a higher bandwidth video interface than the VGA cables. | $89.00 |
| ATM-CBL-10 | 10 ft. serial communication cable. Connects Atlas monitor to std. 9-pin RS-232 port. | $31.50 |
| ATM-CBL-25 | 25 ft. serial communication cable. Connects Atlas monitor to std. 9-pin RS-232 port. | $57.00 |
| ATM-CBL-50 | 50 ft. serial communication cable. Connects Atlas monitor to std. 9-pin RS-232 port. | $84.00 |
| USB-CBL-AB3 | 3-ft (0.9 meter) Standard USB 2.0 cable with Standard-A plug to Standard-B plug. Suitable for all USB devices. | $12.00 |
| USB-CBL-AB6 | 6-ft (1.8 meter) Standard USB 2.0 cable with Standard-A plug to Standard-B plug. Suitable for all USB devices. | $16.00 |
| USB-CBL-AB10 | 10-ft (3 meter) Standard USB 2.0 cable with Standard-A plug to Standard-B plug. Suitable for all USB devices. | $36.50 |
| USB-CBL-AB15 | 15-ft (4.6 meter) Standard USB 2.0 cable with Standard-A plug to Standard-B plug. Suitable for all USB devices. | $42.50 |
| ATM-AC-CON | Replacement Power Wiring Connector for AC Powered Units. | $19.00 |
| ATM-CLIP | Replacement flat panel mounting clip kit. Package of 16 clips and screws. | $45.00 |

USB-CBL-AB3

USB-CBL-AB6

USB-CBL-AB10

USB-CBL-AB15

ATM-CBL-VGA10

ATM-CBL-10

ATM-CBL-VGA25

ATM-CBL-25

ATM-AC-CON

ATM-CBL-VGA50

ATM-CBL-50

ATM-CLIP

ATM-CBL-DV3M