Atlas Industrial Flat Panel PC Monitors

ATM1500 / ATM1500T

The ***Atlas*** ATM1500/ATM1500T is a high performance 15" 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 ATM1500/ATM1500T accepts standard analog VGA or digital DVI input and can display all VESA video modes up to 1280 x 1024 at 75 Hz, 800:1 contrast with 16 million colors. An optional 5-wire analog touch screen (ATM1500T) 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 (ATM1500T only), 2m USB Cable (ATM1500T only), mounting hardware and Quick Installation Guide*.

***Visit automationdirect.com for specific operating system requirements.**

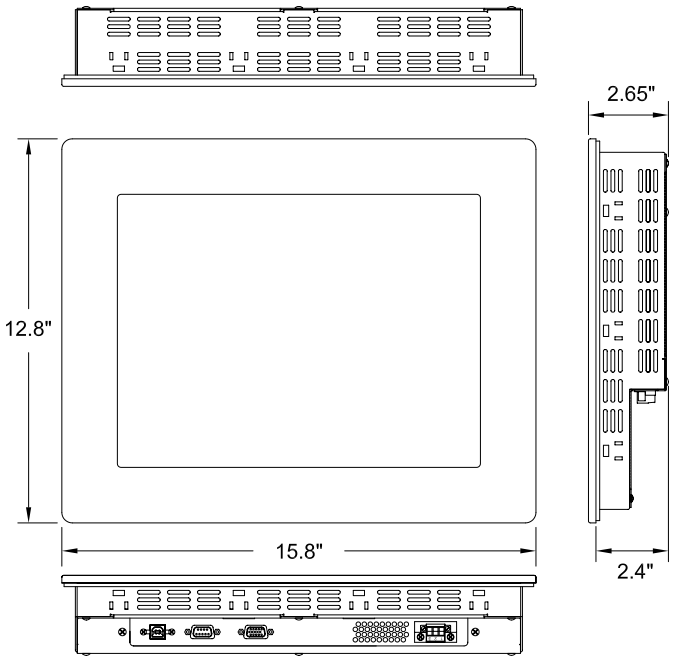
$1,529.00 / $1,664.00

Specifications

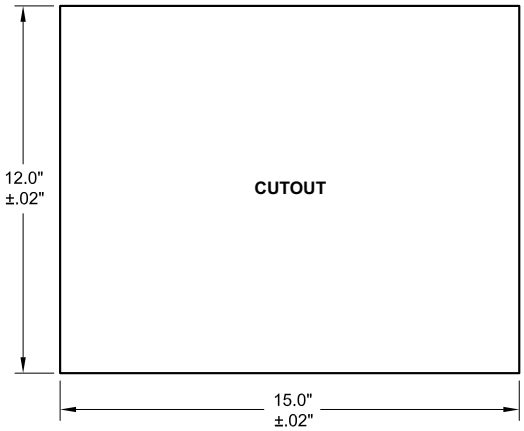
- 15" color TFT LCD display
- UL 508 and ANSI/ISA 12.12.01-2012 listed for Hazardous Locations: Class I, Division 2, Groups A, B, C, D; Class II, Division 2, Groups F and G and Class III hazardous locations when mounted in a NEMA Type 1, 4, 4X or 12 enclosure
- NEMA 4/4X/12 front bezel
- 2-year warranty
- 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.

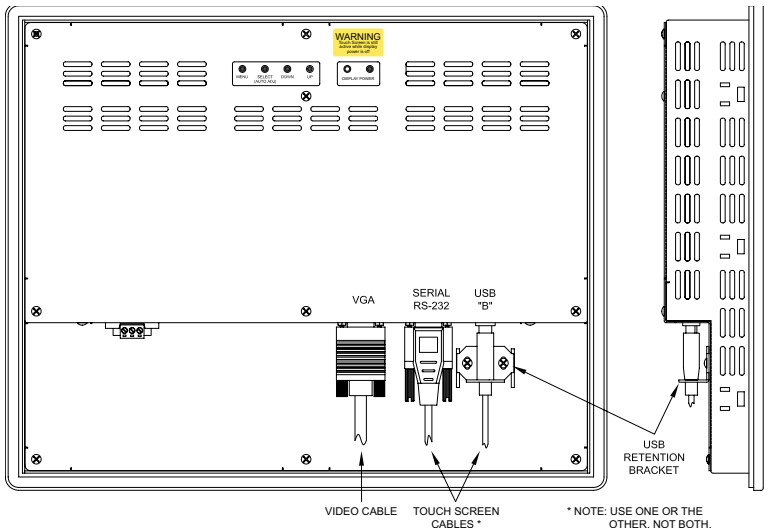
Dimensions



Mounting Cutout



Cable Connections



Atlas Industrial Flat Panel PC Monitors

LCD Monitor Specifications

LCD Monitor Specifications						
Part Numbers	**ATM1500**	**ATM1500T**	**ATM1700**	**ATM1700T**	**ATM1900**	**ATM1900T**
Nominal Size	**15”**		**17”**		**19”**	
Price	$1,529.00	$1,664.00	$1,650.00	$1,799.00	$2,050.00	$2,199.00
DISPLAY						
Display Type	TFT Active Matrix					
Display Diagonal Size	14.96” (380mm)		17.04” (432.8mm)		18.97” (481.8mm)	
Display Size (Active Area H x W)	8.98” x 11.97” (228.1 x 304.0mm)		10.64” x 13.30” (270.3 x 337.8mm)		11.85” x 14.82” (301.0 x 376.4mm)	
Native Resolution	XGA, 1024 x 768		SXGA, 1280 x 1024			
VESA Modes Supported	Up to 1280 x 1024 @75 Hz					
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” (3.2mm) Lexan (polycarbonate), clear hard coat					
PHYSICAL						
Overall Monitor Dimensions (H x W x D)	12.80” x 15.80” x 2.65” (325.1 x 401.3 x 67.3mm)		14.48” x 17.14” x 2.85” (367.8 x 435.4 x 72.4mm)		15.70” x 18.66” x 2.95” (398.8 x 474.0 x 74.9 mm)	
Cutout Dimensions (H x W)	12.00” x 15.00” (304.8 x 381.0mm)		13.70” x 16.35” (348.0 x 415.3mm)		14.90” x 17.75” (378.5 x 450.9mm)	
Chassis Depth	2.4” (61.0mm)		2.6” (66.0 mm)		2.7” (68.6mm)	
Bezel Construction	0.25” (6.4mm) 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		≤ 35W	
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, 11 msec					
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" (4.6mm)		0.19" (4.8mm)
Positional Accuracy (Standard Deviation of Error)	<0.08" (<2.0mm)		
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

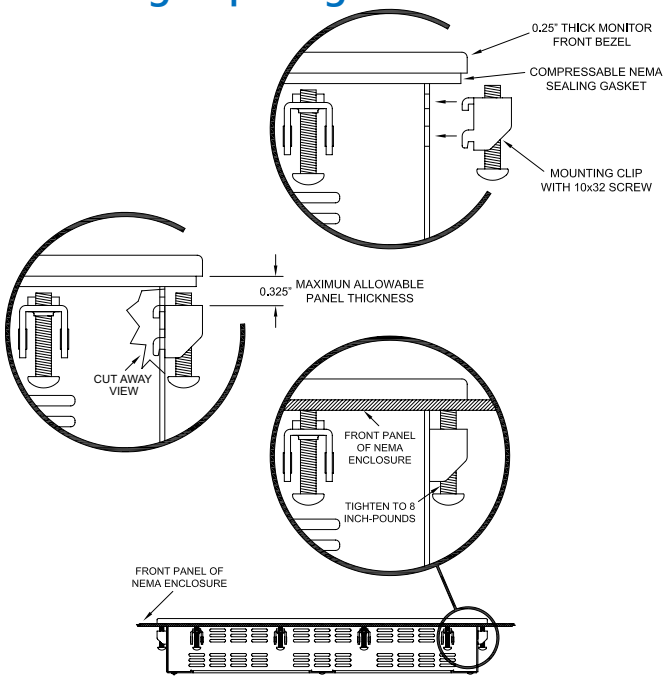
Video Modes						
Mode	***Dot Clock (MHz)***	***Horizontal Freq (KHZ)***	***Vertical Freq (Hz)***	***H Sync Polarity***	***V Sync Polarity***	***Display Modes for Best Image Quality***
640 x 350 @ 70Hz	25.144	31.430	70.000	P	N	
640 x 400 @ 70Hz	28.287	31.430	70.000	N	P	
720 x 400 @ 70Hz	28.287	31.430	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 @ 75 Hz	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 @ 75 Hz	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 @ 75 Hz	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 @ 75 Hz	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.

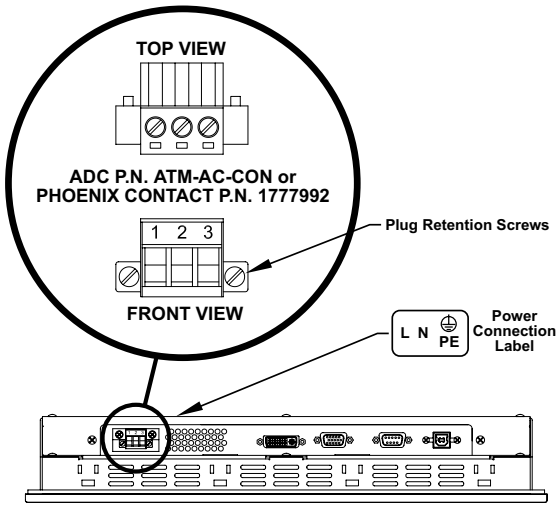
Mounting Clip Diagram



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.

Power Wiring Diagram

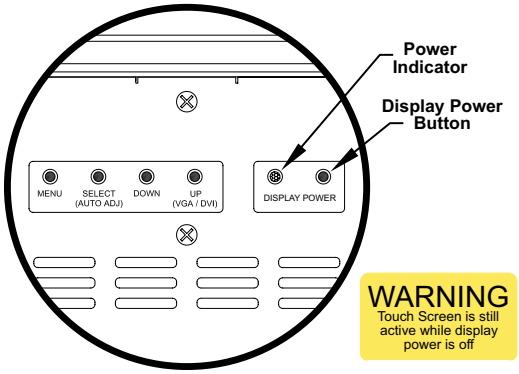


100 VAC - 240 VAC INPUT (1.0 Amps Min)		
1 2 3	*PIN No.*	*Definition*
	1	AC Line Input
	2	AC Neutral Return
	3	Protective Earth Ground

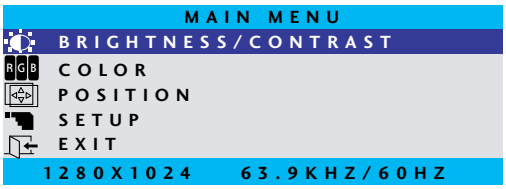
Setting the On-Screen Display (OSD) controls

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



OSD Main Menu Display



Atlas PC Monitor Accessories

Accessories & Replacement Parts

Part Number	Description	Price
ATM-CBL-VGA10	10ft. 15-pin coaxial VGA cable. Connects any Atlas monitor to a standard VGA card.	$54.00
ATM-CBL-VGA25	25ft. 15-pin coaxial VGA cable. Connects any Atlas monitor to a standard VGA card.	$110.00
ATM-CBL-VGA50	50ft. 15-pin coaxial VGA cable. Connects any Atlas monitor to a standard VGA card.	$140.00
ATM-CBL-DV3M	10ft. (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.	$84.00
ATM-CBL-10	10ft. serial communication cable. Connects Atlas monitor to std. 9-pin RS-232 port.	$36.00
ATM-CBL-25	25ft. serial communication cable. Connects Atlas monitor to std. 9-pin RS-232 port.	$59.00
ATM-CBL-50	50ft. serial communication cable. Connects Atlas monitor to std. 9-pin RS-232 port.	$78.00
USB-CBL-AB3	3ft (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	6ft (1.8 meter) Standard USB 2.0 cable with Standard-A plug to Standard-B plug. Suitable for all USB devices.	$16.50
USB-CBL-AB10	10ft (3 meter) Standard USB 2.0 cable with Standard-A plug to Standard-B plug. Suitable for all USB devices.	$37.00
USB-CBL-AB15	15ft (4.6 meter) Standard USB 2.0 cable with Standard-A plug to Standard-B plug. Suitable for all USB devices.	$43.50
ATM-AC-CON	Replacement Power Wiring Connector for AC Powered Units.	$31.00
ATM-CLIP	Replacement flat panel mounting clip kit. Package of 16 clips and screws.	$60.00

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