
AEXX-230 SERIES
EVENT COUNTERS

(INCLUDES AEXX-230AC SERIES)

AEXX-230 SERIES EVENT COUNTER
REV 09/18/00

DESCRIPTION

AE Series Event Counters are available with 1", 2.3", 4", 8", or 12" high digits, visible from 5 feet to 500 feet away. They are available in 2, 3, 4, 5, and 6 digit versions. The Event Counters can increment indefinitely to a maximum digit value at which time they roll over and continue to increment each time a count signal is applied. The unit may be reset by a single reset signal.

This manual covers all AE Series displays from two digits to six digits, including two-sided versions with the Event Counter option (230 or 230AC) installed. Options 230 and 230AC are identical except that option 230AC has AC filters installed on the Count and Reset inputs. It will use the term "the AE DEVICE", in some cases to cover all versions of displays.

The model numbers of the AEXX-230 Series are derived from the digit size and the number of digits in the display, followed by the suffix, 230 or 230AC. For example the AE24-230 is 2.3 inch, four-digit display and the AE126-230 is a twelve-inch, six-digit display. For two-sided versions, the model number would have /2. For example: AE84/2-230 would be the model number for a Two-Sided, Eight Inch, Four Digit Event Counter. Each AE Display can be configured in a number of ways. Some will have different enclosures including wall mount, rack mount, two sided wall or ceiling mount, and NEMA type enclosures for all applications. For your specific model number and hardware configuration refer to the drawings at the back of this manual.

For multiple display system the Master/Driver Option (348) can be added. This option allows you to connect up to 40 remote displays to the AE Event Counter for displaying the same variable in many locations.

The event counter applications include: Production line counters, tote boards, etc. They are easily interfaced with photoelectric, infrared, and mechanical limit switches, process control computers (PLC's) and other equipment.

The AE Series Event Counters are configured from standard modules to provide specific size, number of digits, color, brightness, enclosure type, mounting, wiring, and power requirements.

See the drawings at the back of this manual for your specific configuration.

AEXX-230 SERIES EVENT COUNTER
REV 09/18/00

SPECIFICATIONS

Digits:	1, 2, 3, 4, 8 and 12 Inch High, Seven Segment Digits are available. For additional digit specifications, see the drawings at the back of this manual for your specific model.
Number of Digits:	Models are available with 2, 3, 4, 5, or 6 digits. See the drawings at the back of this manual for your specific model.
Count Rate:	Up to 25 pulses per second (25Hz) Up to 5 pulses per second (5Hz) with Option 230AC
Count Signal:	5V DC to 120V DC pulse (>20 msec), 12 V AC to 120 V AC with Option 230 AC Can be jumpered for dry contact closure input.
Reset Signal:	5V DC to 120V DC pulse (>20 msec) 12 V AC to 120 V AC with Option 230 AC Can be jumpered for dry contact closure input.
Power:	120 VAC – The power required varies with the size and number of digits. Optional power includes 50 HZ, 12 VAC, 12 to 15 VDC and 220 VAC.
Accuracy:	Synchronous with the AC power line when power is applied. On battery backup a 0.005% crystal time base is used.
Battery standby:	Self-charging, 9V Ni-Cad.
Operating Temperature:	0 to 50 Degrees C
Enclosure:	Black anodized aluminum with .118" thick red acrylic lens. The back panel is .125" thick black, ABS plastic. The size varies with the size and number of digits. See the drawings at the back of this manual. A 1210-0101 mounting bracket is provided for wall mounting to a single or double gang box. <u>Optional enclosures are available.</u>
Wiring:	Clearly labeled, pigtail lead wires (#18 AWG) are provided. Optional terminal blocks, power cords, and connectors are available.
Options:	There are numerous options available for the AE-230 Series Event Counter. Some include: (/2) Two Sided Version, (348) Master/Driver Output, (376) Relay Output, and (PC8) Add 8 FT. Power Cord. When options are ordered, supplemental information is provided with addenda and additional drawings.

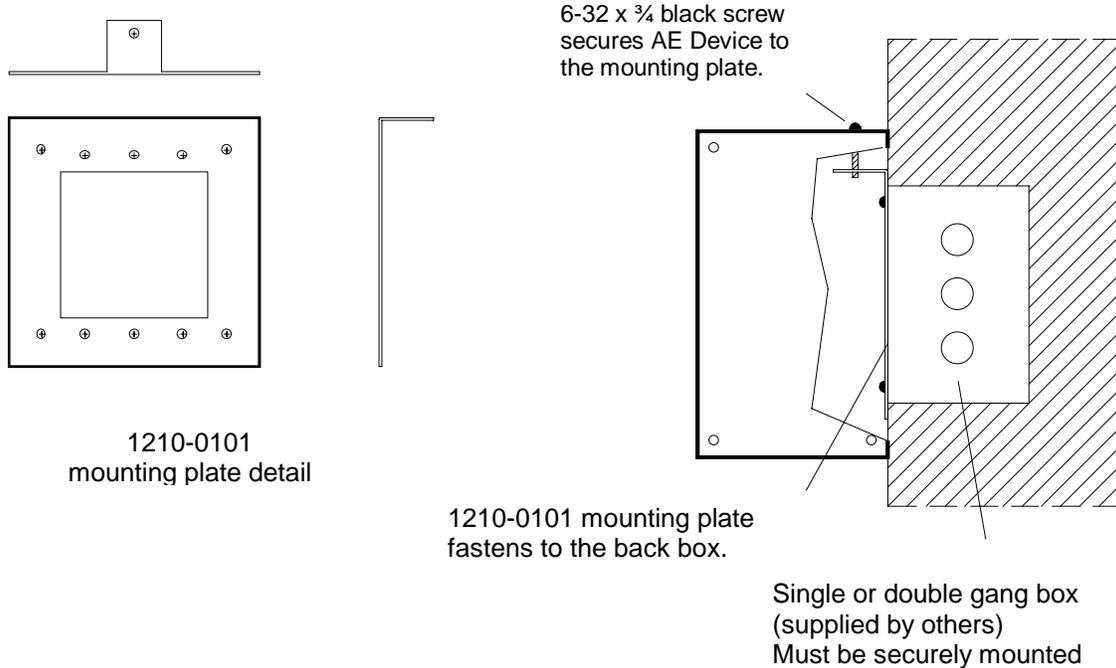
For all other options refer to the drawings at the back of this manual for additional specifications.

AEXX-230 SERIES EVENT COUNTER
REV 09/18/00

INSTALLATION

MOUNTING

The AE Series Displays can be mounted in a variety of ways. Things to consider for mounting include ambient light, viewing area, ambient temperature, dirt or dust. Most models are supplied with one or more 1210-0101 mounting brackets for wall mounting to a single or double gang box. See the detail below. For other mounting options, such as ceiling mounts or double-sided mounts, refer to the specific drawings.



WIRING

There are many wiring configurations for the AEXX Series Event Counters, depending on the functions used and the options installed. Field wiring will depend on the specific hardware configuration. On most units the AC power has been pre-wired and clearly labeled pigtail leads are provided at the back panel for termination in a single or double gang box as shown above. Some models come with AC power cords or 12 VAC power modules. These can be plugged into a standard 120 VAC outlet. For any other power configurations, refer to the specific wiring diagrams provided.

The count and reset signal inputs are also pre-wired on most units. Labeled wires for count (WH/BLUE +, WH/BLK -) and reset (WH/GRAY +, GRAY -) are provided at the back panel for termination in single or double gang box as shown above. For any other signal configurations, refer to the specific wiring diagrams provided.

AEXX-230 SERIES EVENT COUNTER
REV 09/18/00

OPERATION

Before applying power, be sure all wiring is completed. Apply power to the unit. The displays will rotate during the power on self-test and then a version number will appear for a few seconds. The counter will display all zeros. If a charged battery is installed, the self-test will be bypassed.

USING THE COUNTER

The COUNT signal can be any voltage level from 5V to 120V AC or DC switched through a SPST momentary switch or relay, or an active signal such as an open collector output from a PLC or proximity detector properly wired to the COUNT input. The count will be incremented when a pulse is applied.

The count will continue up to the maximum count allowed by the number of digits in the display. For example: 999999 for a six digit display. The next pulse will cause the count to roll over to zero and the pulses will continue to increment the count.

The RESET signal can be any voltage level from 5V to 120V AC or DC switched through a SPST momentary switch or relay, or an active signal such as an open collector output from a PLC or proximity detector properly wired to the COUNT input. The count will be reset to zero when a pulse is applied.

The RESET signal overrides the COUNT signal. As long as the RESET signal is applied, the COUNT signals are ignored.

If power is lost, a rechargeable battery backup system will store the count for up to four hours. Also the COUNT and RESET signals are functional during power loss. For systems using active signal inputs, the COUNT and RESET functions will continue as long as the signal inputs are in the 5V to 120V AC or DC range.

**AEXX-230 SERIES EVENT COUNTER
REV 09/18/00**

TECHNICAL SUPPORT

For any questions concerning installation and operation of this product, contact our factory at:

**PHONE (800) 444-7161
OR
FAX (318) 797-4864**

SERVICE POLICY

It is recommended that all service for this product be done by the factory or by a factory authorized service representative. Applied Technical Systems will provide ongoing service support in and out of warranty. Send your repairs to:

**APPLIED TECHNICAL SYSTEMS
815 KING PLACE
SHREVEPORT, LA 71115**

**APPLIED TECHNICAL SYSTEMS
WARRANTY POLICY**

ATS warrants its products to be free of defects in material and workmanship for a period of 24 months from the date of purchase. ATS will repair or replace any product returned to its authorized factory service center within the warranty period so long as there is no evidence that the product has been abused, misused, damaged by lightning, overloads of any kind or water, or altered in any way.

Products returned for warranty must be returned with freight prepaid. ATS will pay normal freight charges to return the product to the customer. Special premium freight requested by the customer will be charged to the customer.

ATS disclaims any warranties expressed or implied, including merchantability and/or fitness for a particular purpose. In no event shall ATS be held liable for incidental or consequential damages.