

# FAULT RECORDERS



## Platinum 2.5K Portable Multi-Function Recorder

### For Generation, Transmission and Distribution Power System Monitoring

#### Quick and Easy Installation Saves Time and Money

The Platinum 2.5K Portable Multi-Function Recorder is packaged in a rugged case with quick connect interfaces for fast and simple field connection. Interface cables are provided with shrouded banana jacks that couple easily with a variety of measurement CT's and voltage scaling devices offering complete flexibility for power utility and industrial use.

#### Latest Advancements in Fault Recorder Technology

The Platinum 2.5K Portable Multi-Function Recorder utilizes a 40 GB solid state drive that eliminates the need for a mechanical hard drive and stores over 1,000 fault and disturbance records at once.

#### Fault and disturbance recordings can be stored in the following:

- High-speed sinusoid data for traditional fault recorder analysis
- Slower speed data for disturbance or swing recording
- Continuous logging of RMS and phasor data for disturbance monitoring
- Steady-state logging of RMS and harmonic spectrum values
- System frequency for power quality analysis

All features are available simultaneously with no degradation of system performance, making AMETEK's Platinum 2.5K Platinum Portable Recorder the perfect solution for temporary monitoring, testing of protection systems or start-up of ancillary equipment.

#### FEATURES AND BENEFITS

1	Rugged portable case with 8 analog and 16 digital inputs
2	Pre-fabricated interface cables with an extensive range of measurement CT's
3	Complete solid state design with no moving parts
4	Simultaneous recording of high speed fault data, disturbance recording and power quality information
5	Advanced system swing detection including triggers for power and frequency oscillation
6	Fault, disturbance and power quality data can be automatically exported in COMTRADE (IEEE C37.111-1999) or PQDIF (IEEE 1159.3)
7	View analog, digital and computed values in real time
8	Sequence of events recording provides 1 msec resolution on change of state on all monitored contacts
9	Phasor measurement unit-synchronized phasor measurements, in accordance with IEEE C37.118-2005

# SPECIFICATIONS

## INPUTS

Number of Channels  
· 8 analog and 16 digital

### Voltage Inputs

· 63.5 or 110 V RMS nominal  
· 480 or 600V RMS nominal (via external box)

### Current Inputs

· 1 A or 5 A RMS nominal (thru current transformers, other ranges available)

### Frequency Response

· DC – 1/2 sampling rate (1/4 sampling rate for 384 samples per cycle only)

### Accuracy

· Better than 0.1% of full scale

### Digital Inputs

· 24/48/125/250 VDC normally open or closed wetted contact

## RECORDING (TRANSIENT)

Recording Resolution  
· 16 bits, 65536 levels (15 plus sign)

### Sample Rate

· Up to 384 samples per cycle

## PRE-FAULT TIME

· 2 to 600 cycles

### Post-fault Time

· Fault length will extend as long as a trigger condition exists. Minimum is 8 to 100 cycles

### Safety Window

· Recording time after active trigger:  
0 to 16 cycles

### Maximum Record Length

· Maximum size 1 to 60 sec. (this prevents memory filling with a continuous trigger)

## RECORDING (DISTURBANCE)

Sample Rate  
· 2 x supply frequency (100/120 Hz)

### Pre-fault Time

· 10 sec. to 10 min.

### Post-fault Time

· Fault length will extend as long as a trigger point condition exists. Minimum value is 30 sec. to 5 min.

### Maximum Record

· Absolute maximum: 30 minutes

## OPTIONAL RECORDING (DISTURBANCE LOGGING)

Sample Rate  
· 1/2 x supply frequency (25/30 Hz)

### Recording Time

· 2 weeks (circulating buffer)

## RECORDING (TREND)

Sampling Interval  
· 1 minute, or 10 minutes – data can be retrieved at up to a 60 minute interval

### Record Length

· 52 weeks (circulating buffer)

### Storage Parameters

· Maximum, minimum, and average voltage, current, frequency (2), power, flicker, harmonics, and imbalance. Digital data in SER format at user defined time resolution

## TRIGGERING (TRANSIENT)

### Analog Channels

· Over/under RMS level, Rate-of-Change and THD. Positive, zero and negative sequence triggers, over, under and R-o-C frequency triggers, differential frequency

### Digital Channels

· Normal to alarm state and return to normal state. Edge or level sensitive

## TRIGGERING (DISTURBANCE)

### Analog Channels

· Over/under level of fundamental and R-o-C, frequency and ROCOF, power and frequency oscillation, imbalance and impedance, cross trigger from transient recorder

## SYSTEM TIMING

### Time Source

· Optional internal GPS receiver with 1 PPS output for phasor measurement

### Accuracy

· Normally better than +/- 60 ns

## COMMUNICATIONS

### Serial Ports

· 1 x RS-232 type

### Default Setting

· 57.6 kbaud, 8 bits, 1 stop, no parity. Rates can be set up to 115 kbaud

### Network

· 10baseT  
· Network protocol: TCP/IP

## DATA STORAGE

Permanent Storage  
· 40 GB flash disk

## POWER SUPPLY

### Input Voltage Options

· 100 to 300 VDC, 85 to 264 VAC, (optional 85 to 150 VDC, 85 to 264 VAC)

### Power Requirement

· 60VA (8 channel)

## VOLTAGE WITHSTAND

· Isolation, Impulse Voltage, RFI and ESD per IEEE/IEC Standards

## ENCLOSURE

Case and Unit  
· 30 lbs. (DIM)

## ENVIRONMENT

Operating Temperature  
· 14° to 131°F (-10° to 55°C)

### Relative Humidity

· 0 to 97% non-condensing

### WORLD HEADQUARTERS

255 North Union Street  
Rochester, NY 14605  
Toll Free: +1.800.950.6686  
Tel: +585.263.7700  
Fax: +585.454.7805

### EUROPEAN HEADQUARTERS

UK  
+44.770.280.9377  
power.sales@ametek.com

### ASIA PACIFIC HEADQUARTERS

Singapore  
+65.6484.2388  
sales@ametekasia.com

### AMETEK INSTRUMENTS INDIA PVT. LTD.

Bengaluru  
+91.80.6782.3252  
power.sales@ametek.com

### WEBSITE

[www.ametekpower.com](http://www.ametekpower.com)

### EMAIL

[pi.marketing@ametek.com](mailto:pi.marketing@ametek.com)



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## POWER INSTRUMENTS

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