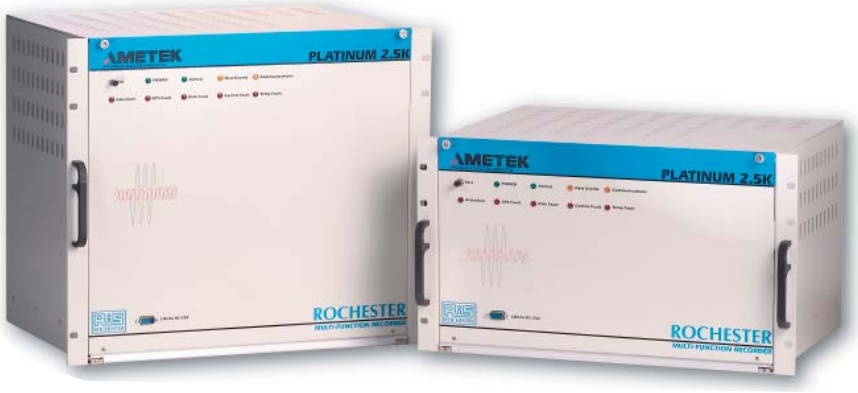
Platinum 2.5K Multi-Function Recorder

FOR GENERATION, TRANSMISSION, AND DISTRIBUTION POWER SYSTEM MONITORING

ROCHESTER SCIENTIFIC COLUMBUS

MULTI-FUNCTION RECORDER



For all types of power system events, the Platinum 2.5K Multi-Function Recorder provides all the information you need to capture the complete picture. With the true integrated functionality of the Platinum 2.5K, you have one place for all your answers. Simultaneously perform: transient recording, disturbance recording, phasor measurements, power quality analysis, and sequence of events recording. The Platinum 2.5K provides answers when you need them with as much information as you need to get results quick. The system can operate automatically to retrieve events and perform an expert analysis so you have the answers fast, saving time and money. The Platinum 2.5K takes the place of several devices, integrating their functions into one unit, saving you money on equipment and installation while providing all the answers in one software platform. All of these functions are performed at the highest level so it will meet your needs of today and in the future. In a deregulated environment, the Platinum 2.5K is the best tool to provide the necessary data to increase revenues and retain your customers.

The Platinum 2.5K recorder incorporates the latest advancements in technology and low power components for ultimate reliability. No longer needing a hard drive, the unit's 8GB Flash Drive can store over 1000 fault records and over 1000 disturbance records simultaneously, providing a large volume of both high-speed sinusoid data for traditional fault analysis and slower speed data for disturbance or swing recording. The unit also includes steady-state logging of RMS and harmonic spectrum values on every channel and frequency as a standard feature.

Optimize your power system to improve reliability, shorten your fault clearance times, and verify correct operation of your switchgear and protection equipment. The Platinum 2.5K is ideally suited for your generation, transmission, and distribution power system monitoring.

The Platinum 2.5K can be matched to any application with 16 models available in one robust, utility-hardened chassis:

8 Analog / 16, 48, 80, 112 or 144 Digital Inputs
16 Analog / 32, 64, 96, 128 or 160 Digital Inputs
24 Analog / 48, 80 or 112 Digital Inputs
32 Analog / 64, 96 or 128 Digital Inputs

FEATURES AND BENEFITS

- Transient fault recorder—post fault analysis to verify protection and circuit breaker operations, fault clearance times
- Disturbance recorder/logger—analyze power system stability by recording recluse sequences, power swing, and frequency oscillations
- Trend recording—verify voltage regulation and balancing
- Power quality monitor—voltage and frequency profiles, voltage dips and surges, loss of supply, harmonic content, flicker, voltage and current imbalance
- Automatically or manually export fault, disturbance and power quality data using the EEE P1159.3 PQDIF standard
- Phasor Measurement Unit—synchronized phasor measurements, in accordance with IEEE STD 1344
- Fault locator—calculates distance to fault based on configurable line model
- Real time monitor—view analog, digital inputs, and computed values in near real time
- Multiple simultaneous connections over serial, modem or Ethernet, secured with strongly encrypted passwords.
- Sequence of events recorder—1 msec or better resolution on digital contacts

AMETEK® POWER INSTRUMENTS

EXPERIENCE THE POWER™

Experience the Power™

SPECIFICATIONS

INPUTS

Number of Channels
- 8, 16, 24, or 32 Analog
- 16, 32, 48, 64, 80, 96, 112, 128, 144 or 160 Digital

Voltage Inputs
- 63.5 or 110 V RMS nominal

Current Inputs
- 1 A or 5 A RMS nominal (thru current shunts/CICT's)

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
- 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

Computed Values
- Voltage and current, real power, reactive power, apparent power, power factor, total harmonic distortion and frequency (x2), positive, negative and zero sequence, voltage imbalance

RECORDING (DISTURBANCE LOGGING) – OPTIONAL

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

Recording Time
- 1 week (circulating buffer)
- 2 weeks for HDD option

RECORDING (TREND)

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

Record Length
- 26 weeks (circulating buffer)
- 52 weeks for HDD option

Stored 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
- Under/over 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
- Internal GPS receiver with 1 PPS output for phasor measurement
- Optional IRIG-B

Accuracy
- Normally better than +/- 60 ns

Synchronization
- 1 pulse per second on optical port. Any number of systems can be linked together

COMMUNICATIONS

Serial Ports
- 2 x RS232 type

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

Modem
- Hayes compatible type internal or external, fax compatible

Phone Line Sharing
- External unit to share a single phone line with a station phone

Network
- 10Base2 (50 ohm coax and BNC), 10baseT, Fiber
- Network protocol: TCP/IP

DATA STORAGE

Permanent Storage
- 8 GB Flash Disk
- 40 GB for HDD option

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 (16 channel), 70VA (32 channel)

VOLTAGE WITHSTAND

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

ENCLOSURE

Cabinet
- **6U** TR-2508 and TR-2516
- **8U** TR-2508-D1, TR-2508-D2, TR-2516-D1, TR-2516-D2, TR-2524 and TR-2532
- **9U** TR-2508-D3, TR-2508-D4, TR-2516-D3, TR-2516-D4, TR-2524-D1, TR-2524-D2, TR-2532-D1, and TR-2532-D2

ENVIRONMENT

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

Relative Humidity
- 0 to 97% non-condensing

CERTIFICATION

CE

AMETEK®
POWER INSTRUMENTS

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