# VIPER

Vibration and PERformance Analyzer

# 4120TC

*Vibration Analyzer Specially Designed for Test Cell Use*

**SmartTach™ speed and phase signal processing uses single or double interrupter, high tooth, low tooth, offset tooth, or TTL input**

**User-selectable vibration inputs for multiple simultaneous measurements**

**Any one of 4 tach inputs selectable for DC and/or SmartTach measurements**

**Up to 24 fully configurable analog outputs based on vibration inputs (order tracking, vibration level tracking, etc.), and one dedicated analog output per tach input (total of 4)**

**1 Hz to 25kHz pulse rate, up to 70kHz max when sampling all 4 tach channels**

**Minimum 32 MB of memory to store large amounts of transient data (may be more with 8 or 12 channel systems)**

**Built-in parallel, serial, and USB ports for easy interfacing with peripheral equipment**

**Wide variety of plug-in input modules, charge converters, and voltage inputs to tailor any application and support integration and advanced filtering needs**

**Rack-mount unit - 19 inches wide, 5.5 high, and 17 deep (rear connectors add to depth).**

**Industry-unique, no-cost, 5-year warranty on defects in components and workmanship included with purchase**

**The VIPER 4120TC** analyzer is specifically designed for use in a test cell. The rack-mounted instrument combines the technologies required for high-end engine vibration analysis and fan trim balancing with numerous data inputs for comprehensive analysis at striking speed. Each VIPER 4120TC is customized to a user's specific needs by ACES Systems' Engineering department.

Data is acquired from 4 vibration and 4 tach inputs. Vibration data is acquired from up to 4 channels simultaneously at the rate of 10 spectra per second at frequency levels up to 30 kHz per channel. Such a wide array of vibration data is invaluable in order and vibration level tracking.

Anti-aliasing filters are used with a Fast Fourier Transform (FFT) to convert data from time to frequency domain at resolutions of 100, 200, 400, 800, 1600, 3200, and 6400 lines. The massive amounts of data acquired in a transient survey are easily stored in the VIPER 4120TC's 32 MB of memory. And, the flexible architecture of the VIPER 4120TC allows you to use many sensor types.

Analysis on virtually any engine type is delivered at speed and accuracy levels that not only meet but often exceed those typically available in test cell environments.

# VIPER 4120TC

VIbration and PERformance Analyzer

**AC Input** 3.1Vpp

**Tachometer Inputs** +/- 0.01%, 150 to 32,000 RPM

**Sensor Types** Accepts any AC signal input (acceleration, velocity, displacement) and any voltage generating sensor including microphones.

**Autoranging Sensor Inputs** Adjusts gains by factors of 2 (1 to 512) independently for all channels.

**Vibration Amplitude** +/- 5%, 0 to 190 IPS with 20mV per IPS sensor

**Frequency Range** 0 to 30kHz

**Microprocessors** 5

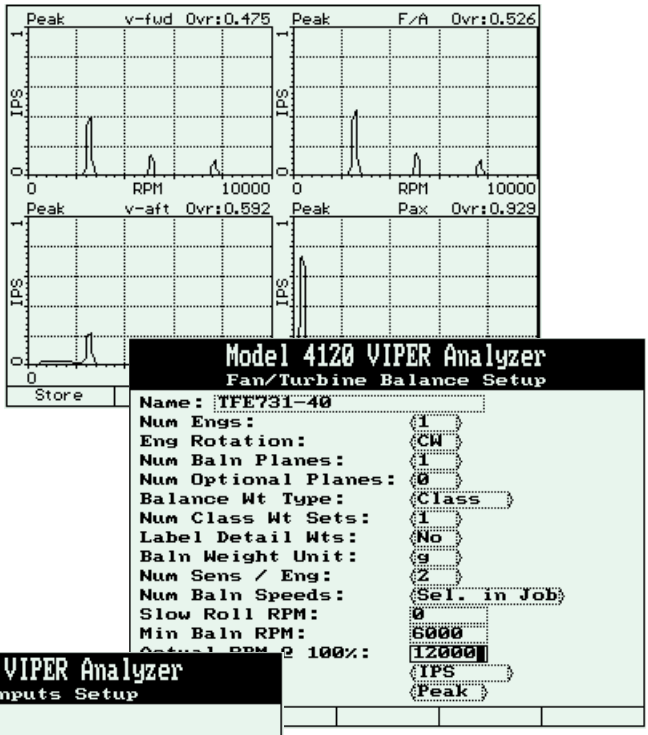
**Memory** 32 MB

**Power** 90-250 Vac, 50-60 Hz (Universal Line Input). Input is fused, filtered, and switched.

**Dimensions** 19 inches wide, 5.5 inches high, 17 inches deep (48.26 cm w, 13.97 h, 46.99 d). Rear connectors add to depth.

**Weight** 11 pounds (4.98 kilograms)

*The VIPER 4120TC's rear view displays multiple input channels.*




*The VIPER 4120TC's easy-to-read display screens prompt users through processes.*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