

## **NEW FEATURES OF THE E30FP / E30TP / E30SP**

The new E30 Series analyzer is an all new design available configured as a direct replacement for all previous E15 models. The redesign is the result of 20 years of customer experience and feedback from the use of the E15.

**Easier to Use:** For each specific application, the Agtron E30 uses the same analysis strategy as the E15 but features many refinements that make it easier to operate, calibrate, and maintain.

**Solid State Lamps:** The E30 uses substrate-based solid-state illumination eliminating the need to replace lamps. This new illumination features electronic regulation. As a result, the analyzer is extremely stable and impervious to line voltage fluctuation and transients. The design MTBF of the light source is 100,000 hours.

**Fully Automated Calibration:** The E30 features display prompted Bulk Calibration. Bulk Calibration is required only once every 24 hours and takes less than one minute. Between Bulk Calibrations, the analyzer self-calibrates whenever the operator opens the sample drawer. This automatic self-calibration feature ensures the highest accuracy for every sample tested and requires no attention from the operator. A “RE-CALIBRATE” reminder appears on the display ever 24 hours to prompt Bulk Calibration, inspiring correct calibration practice.

### **Keypad Entry of Calibration Values:**

All inputs and commands are now entered using a keypad. There are no finicky knobs to turn or complicated procedures to follow, a vast improvement over the E15.

### **Calibration Flexibility:**

The E30 can be calibrated to the Agtron industry standard scale or to your own “custom” internally developed scale. It is easy to move from one scale to the other. In addition, either scale can be expanded or compressed using an operator defined factor invoked by a special function key. Three such factors can be stored in computer memory.

A “custom” scale is developed by assigning desired scores to product samples. This may be desirable when setting Q.C. windows of acceptability for certain product groups.

**Dual Microprocessor Design:** The E30 has an all-new computer and interface board. By incorporating dual microprocessors, maximum flexibility for application/software development is accommodated. Future upgrades can be performed quickly and cost-effectively.

**Non-Volatile Memory:** The E30 stores calibration values or customer selected configurations even when power is disconnected.

**Super-Regulated Solid State Power Supply:** The E30 power supply is an all-new design. Super line-load regulation allows the analyzer to function normally and accurately even in “brown-out” supply line conditions. As an example, the 120VAC, 60Hz version of E30 will operate within specification at line voltages as low as 100V or as high as 140V. Electrical isolation protects the analyzer from the types of line voltage transients common to industrial environments that can cause damage to sensitive electronics.

**High Resolution A/D Converter:** The E30 uses a 12bit A/D converter with over 4000 useable increments for data conversion. With a resident conversion resolution of 0.025% and system resolution of 0.10%, extreme accuracy is inherent.

**Excellent Agreement with other E30's:** One of the design priorities was to improve the “analyzer to analyzer” agreement within the E30 family and over indefinite periods. This new series analyzer produces inter-instrument product readings within 0.40 and long-term correlation within 0.80. This is a vast improvement compared to the E15. Auto-Calibration combined with a high level of inter-instrument agreement insures that multiple analyzers, even in remote locations, will read correctly.

**Non-Critical Internal Calibration Standard:** Each time the Bulk Calibration procedure is completed, the internal computer re-establishes the auto-calibration reference. This means that the internal calibration disk used for auto-calibration is no longer critical to performance as with the E15. Even if the disk becomes scratched or chipped during periodic cleaning, it will not affect automatic calibration or analytical accuracy. The E30's internal standard can also be replaced in under a minute with an “off the shelf” standard stocked item.

**High Contrast Backlit LCD Display:** Can be viewed in any ambient light.