

FEATURES:

- Automatic calibration for up to four, single or dual range process analyzers
- Printer port provides hard copy record of process data and calibration data including analyzer drift (See example below)
- Modbus® protocol RS-232 and RS-485 serial computer interface allows multidrop connection on a bi-directional data highway
- Graphically displays analyzer data as trends, bar graphs & engineering units on flat panel LCD
- Provides "ERROR" alarms when analyzer drift exceeds adjustable alarm threshold
- Analog inputs and outputs are fully isolated
- Equipped with clock & calendar
- NEMA 4X, Explosion-Proof, surface, panel and rack mount packaging styles available



NEMA 7 EXPLOSION PROOF ENCLOSURE SHOWN. PANEL, RACK AND NEMA 4X WALL MOUNT ALSO AVAILABLE.

The R. C. Systems Co., Inc. Model ST-43 CEMS Controller is designed to provide automatic calibration for up to four single or dual range process analyzers. Seven solid state relay outputs allow switching of cal gases into the analyzers. A Centronics® parallel printer port provides hard copy reporting of calibration and process data and is useful when regulatory agency reports are required. A bi-directional RS-232 and RS-485 Modbus® protocol serial port is standard. This is an ideal way to send all analyzer data to a computer data acquisition system. Using RS-485 allows up to 32 ST-43's to be connected to a host computer via a 2 or 4 wire data highway.

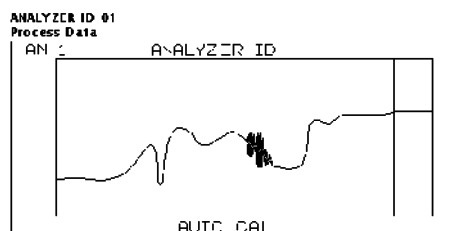
Each display may be printed upon demand by depressing the front panel PRINT key or printed automatically after each calibration. Calibration printouts include a graphic trend of the process interval with MAX, MIN and AVERAGE data, plus a graphic trend of the calibration. Calibration time and date, along with the responses and deviations, are also printed (see the sample printout).

Analog outputs may be configured to track the calibrations, or, hold the last process value. They may also either have drift compensated or reflect the actual analyzer output. Compensation may also be applied for oxygen values since this is a common permit requirement. An output bias may be entered to cancel any compound interferences which may hinder analyzer performance.

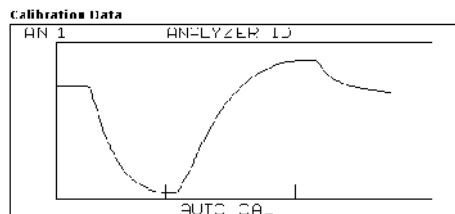
Battery backup maintains full operation during power failures for up to 3 hours. NV RAM retains all configuration data indefinitely.

The ST-43 is easy to configure and very user friendly. Measurement ranges in engineering units, adjustable calibration levels, cal error alarm set-points, innovative display modes (see back of brochure) and many other features combine to allow the ST-43 to satisfy the most demanding CEMS applications.

ANALYZER CALIBRATION REPORT Typical Printout
DATE: 01/08/93 TIME: 11:40



Signal MINIMUM (-20.03 % FS) occurred at 10:23
Signal MAXIMUM (120.25 % FS) occurred at 11:40
Signal AVERAGE = +44.30 % FS



CAL INTERVAL: 1 HR ENDING TIME: 11:40 ENDING DATE: 01/08/93
DESIRED ZERO: +4.90 ACTUAL ZERO: +3.51 DEVIATION: -1.39
DESIRED SPAN: +90.0 ACTUAL RGT: +91.3 DEVIATION: +1.32

