

# AV-9000 Recorder / Recording Controller

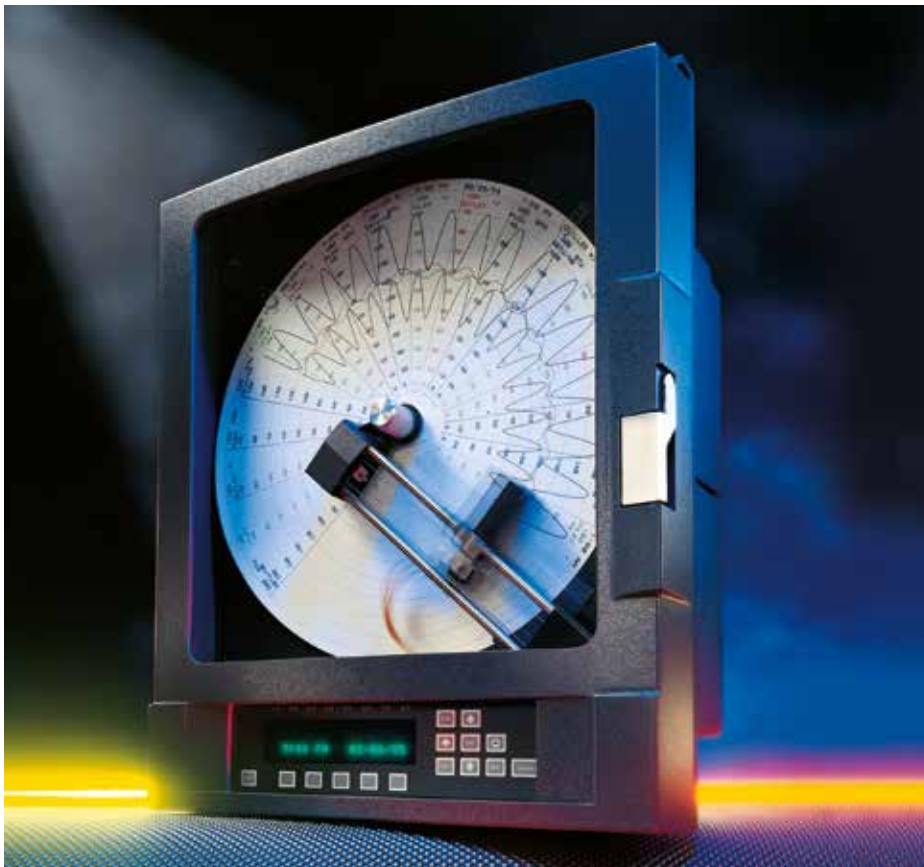
## Introduction

Anderson-Negele introduces the AV-9000, a revolutionary circular chart recorder. It features a four-color marker pen cartridge which prints information as it glides across 12 inch charts. Chart reading is simplified by providing color coded trend lines, scales and alphanumeric data. Plain paper charts are far superior for record retention than "fax type" thermal paper used by competitors. Optional PID control is available on any four inputs. The 40 character vacuum fluorescent display coupled with the integral keypad make the AV-9000 easy to program for users at all skill levels. The case is designed to easily retrofit existing name-brand recorder cutouts.

Complete specifications and ordering information are available on the reverse. For more information please visit our Web Site at [www.anderson-negele.com](http://www.anderson-negele.com), or contact your local Authorized Anderson-Negele Distributor.

## Features

- Four inputs recorded in four colors for enhanced legibility
- Four additional inputs for indicating, control, switching, alarming
- Four PID controllers assignable to any inputs
- Prints its own scales and alphanumeric data
- No pen lag - all printing to same timeline



**Specifications**

**PERFORMANCE**

Recording Accuracy: ± 0.3% of chart span reference accuracy  
 Ambient Temperature Error: 0.01% of span per degree C deviation from 25°C  
 Memory Backup: Battery, 5 year minimum, 10 years typical  
 Operating Temperature: 0 to 50°C (32 to 122°F)  
 Humidity: 10 to 90% RH, non-condensing  
 Warranty: 2 years  
 Agency Approvals: UL approved for USA: UL certified for Canada

**INPUTS**

Eight total inputs of any of the following available types:  
 Analog Input types:  
 RTD Types: Platinum 100 ohm, 2 or 3 wire  
                   .00385 coefficient DIN 43760/IEC 751  
                   .00392 coefficient (USA)  
                   .00392 coefficient (SAMA)  
 Voltage Inputs: 0 to 25mV, 0 to 100mV; 0 to 1 VDC, 0 to 10 VDC  
 Current Inputs: 0 to 20mA, 4 to 20mA  
 Contact Closure: Open/closed switch sensing without external voltages or resistors  
 Scan Rate: The input scan rate is programmable and dependent upon the number of active inputs present on the recorder. The total scans per second for the instrument is 16 scans/second.

**OUTPUTS**

Up to eight on/off relay outputs, and up to four 4 - 20mA analog outputs are available.  
 Relay Outputs: SPDT, contacts rated 5 amps resistive at 115 VAC, 2.5 amps resistive at 230 VAC, 1/8 HP at 230 VAC (single phase), 250 VA at 115/230 VAC.

Analog Outputs (for control and/or retransmission):  
 0 to 20mA into 0-650 ohm load with 12 bits resolution.

**CONTROL**

Control Modes: Proportional, Integral, & Derivative.  
 Auto/Manual: Bumpless Transfer  
 Setpoint: Local or Remote, Single or Dual Setpoint

**POWER**

AC Power: 85 to 265 VAC, 50/60 Hz

**PHYSICAL**

Overall Dimensions: 14.12 inches wide x 17.04 inches high x 7.75 inches deep  
 (358.65 mm wide x 425.96 mm high x 196.85 mm deep)

Weight: 25 lbs. maximum (55 kg)  
 Vibration: 3 to 100 Hz @ 0.2g  
 Enclosure: Gasketed cover, case and windows. Structural foam case, cover material with plastic window areas.

Mounting: Panel, wall or pipe mounting  
 Conduit Openings: Four conduit openings standard  
 NEMA Rating: NEMA 4X  
 Panel Depth: 5.25 inches (133.35 mm)  
 Panel Cutout: 12.7 inches wide x 12.7 inches high (322.58 mm x 322.58 mm)

Front Panel Protrusion: 2.5 inches ( 63.5 mm)  
**DISPLAY AND KEYPAD**  
 Primary Display: 2 line, 40 character vacuum fluorescent display with characters .21 inch (5 mm) high.

Status Indicators: 8, user configurable, red LED status indicators

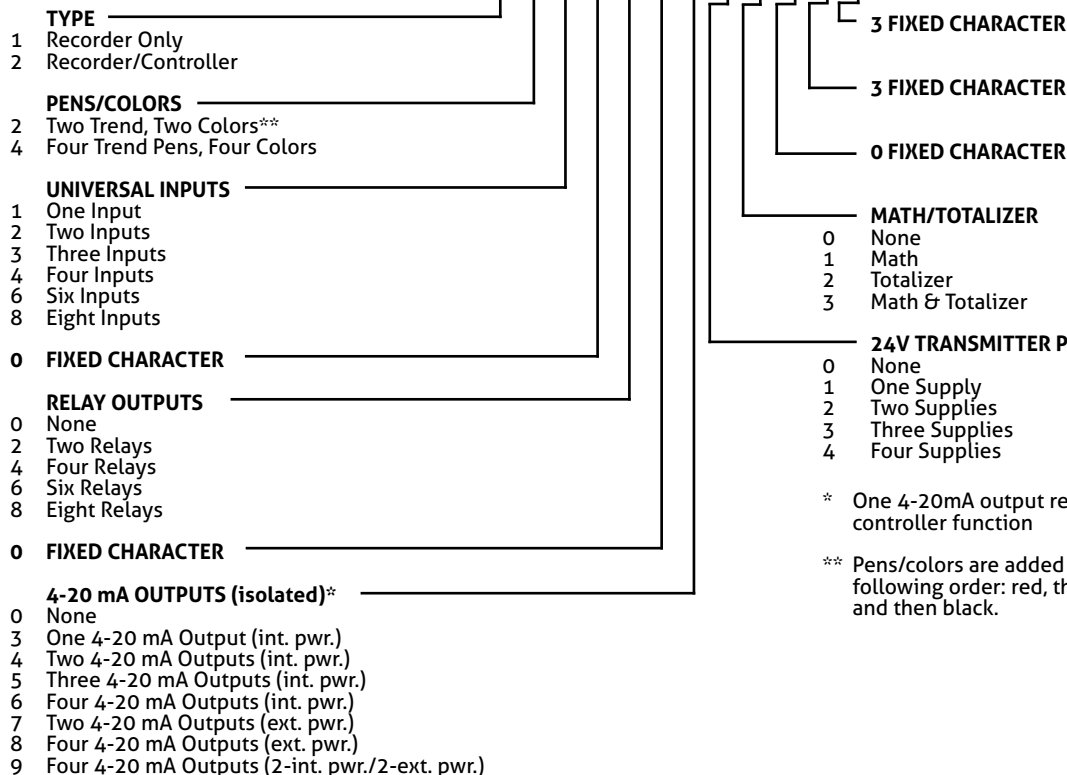
Operator Keypad: 15 keys for programming and unit operation.

**ALARMS**

Four alarms available per each of four process variables, adjustable hysteresis.

**Order Information**

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**NOTE:**  
 Must complete work-sheet 1000 at time of order

\* One 4-20mA output required for each controller function  
 \*\* Pens/colors are added to the instrument in the following order: red, then green, then blue, and then black.