



**DC Process analog unit  
with blazing bright,  
large, color-changing  
display... optional tare  
function**

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**SENSORS**  
INCORPORATED

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The Veeder-Root brand S628 DC Process is a member of a family of 1/8 DIN instruments which offer breakthrough display technology as well as easy-to-program user setup. Its large LED display features the ability to change color based on process status such as exceeding an alarm value. Therefore, when monitoring process variables in applications using analog signals, the S628 provides operators with an instant visual alert to changes in the application's status.

- AWESOME 0.71" high digit LED display (27% larger than other 1/8 DIN units)
- Programmable color change display based on an event
- Programmable help function and secondary legend display
- Field configurable alarm outputs
- Max. and min. value capture
- Plug in option cards include: 2nd relay, digital input, linear output, RS-485 communication
- Transmitter power simplifies wiring
- mA inputs to 50mA, DCV inputs to ±10 Volts and ±100 mV
- Tare function
- Standard outputs: 2 NPN transistors & 1 relay (optional 2nd relay)
- 100 ms sample time with 0.03% accuracy
- CE approved

Process inputs are easily scaled into engineering units by programming two input values and their corresponding display values through the front panel. For nonlinear applications, up to 10 scale points can be entered. A teach function, which automatically inputs the current sensor reading as a scale point, further simplifies setup. The two alarms can be setup for high or low operation, reverse or direct acting, and can be latched. An integrating totalizer can be used to accumulate flow or other values where tracking a total may be useful.

### SPECIFICATIONS

**Process Input:** To 50 mA, ±10 Volts DC, ±100 mV

Accuracy: ±0.01% of span

Sample Rate: 100 ms

Resolution: 14 bits

Sensor Break: Detected within 2 seconds

**Control Inputs:** Sourcing, Edge Sensitive

Logic Low ≤ 2.0 VDC, Logic High ≥ 3.0

Impedance: 4.7 KΩ to + voltage - Sourcing

Function: Programmable

**Outputs:** Solid State: NPN open collector, 30 VDC max., 100 mA max.

Relay: SPDT, 5A resistive @ 110 VAC

Latency: 75 μ seconds, plus 8 ms for relay pull-in

**Linear Outputs:** 0-20mA, 4-20mA, 0-10V, 2-10V, 0-5V, 1-5V

Accuracy: ±0.25% (mA at 250Ω, V at 2kΩ); degrades linearly to ±0.5%

Resolution: 8 bits in 250ms (10 bits in 1s typ.)

Update: Approximately 4/s

Load Impedance: mA ranges: 500Ω max.; V ranges: 500Ω min.

**Communication:** RS-485; Serial asynchronous, UART to UART;

Open ASCII: One start bit, even parity, seven data bits, one stop bit;

Baud Rate selectable from 9600, 4800, 2400, or 1200

Maximum Zones: 99

**Supply Voltage:** 90-264 VAC, 50/60 Hz, or 20-50 VAC/VDC; 4 Watts

**Accessory Power Supply:** Voltage: 20-28 VDC, 24 VDC nominal;

Min. Impedance: 910Ω (22 mA @ 20 VDC)

**Display:** Red/Green, 7 segment LED

Primary display: 5 digits, 0.71" (18mm) height

Secondary display: single digit, 0.3" (7mm) height

Annunciators: Output 1 & Output 2 status

**Dimensions:** 48mm x 96mm, 110mm deep

**Mounting:** Panel mount (mounting bracket supplied), 45mm x 92mm cutout

**Connections:** Screw type terminals - combination head

**Front Panel Rating:** NEMA 4X/IEC IP65

**Case Material:** GE Lexan 940

**Weight:** 0.56 lbs.

**Operating Temp.:** 0° to 55° Celsius, 32° to 131° Fahrenheit

**Storage Temp.:** -20° to 80° Celsius, -4° to 176° Fahrenheit

**Relative Humidity:** 20% to 95% non-condensing

**Approvals:** CE

