

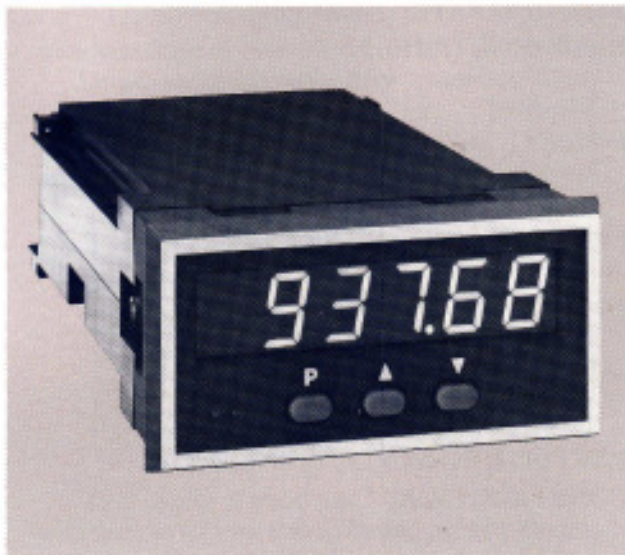
Features

- 40,000 count measurement resolution (can be scaled to $\pm 99,999$ display)
- Accepts standard process signal currents (4–20 and 10–50 mA DC)
- Full 6 digit, high visibility, 0.56" high red LED display
- Programmable front panel lock-out menu
- NEMA 4/IP65 sealed metal front bezel
- Optional Linearizer and Integrator (totalizer)
- Optional dual alarm relay outputs

Description

The S960 Series Indicators accept standard process signals and precisely scale them into engineering units. A single model covers any current range within 0–50 mA. A 6-digit display accommodates nearly all engineering units and allows for large totalization values. State-of-the-art digital circuitry virtually eliminates errors due to drift. A variety of option packages are available to fulfill many process applications. Programmable digital filtering enhances the stability of the reading.

The indicator features a choice of two different scaling procedures, greatly simplifying initial set-up. English Style display prompts aid the operator through set-up and operation. A front panel lock-out menu protects set-up data and operation modes from unauthorized personnel. A remote switch can be utilized to control a variety of totalizing, set point, display hold, and peak/valley reading operations. All set-up data is stored in E²PROM, which will hold data for a minimum of 10 years without power.



An optional integrator (totalizer)/linearizer can be used to totalize or integrate signals up to a maximum display value of 999,999. It features independent scaling and a low signal cut-out to suit a variety of signal integration applications. Additionally, nine slopes and offsets can easily be programmed with this option to linearize transducers with non-linear outputs, such as square law devices. Peak/valley (max/min) reading memory, display hold and a signal re-zeroing (tare) function are also included with this option and they are easily recalled and controlled by either the front panel or a remote switch. All readings are retained at power-down.

Optional dual relays with parallel solid state outputs are fully programmable to operate in a wide variety of modes to suit many control or alarm applications.

S960 Series Specifications

DISPLAY: 6-digit, 0.56" (14.2 mm) High LED.

POWER: 115 or 230 VAC, $\pm 10\%$, 50/60 Hz, 6 VA.

CONTROLS: Three front panel push buttons for modifying alarm values and indicator set-up. Two external inputs for disabling the front panel and controlling programmable functions.

SIGNAL INPUT RANGE: 0–50 mA (4–20 mA, 10–50 mA).

INPUT IMPEDANCE: 10 ohms, 0.2V @ 20 mA
Max. Input Current: 200 mA (continuous)

ACCURACY AND RESOLUTION:

Resolution: 1/40,000; display values to $\pm 99,999$ may be programmed.

Accuracy: $\pm (.02\% + 1 \text{ digit})$

READING RATE: 2.5 readings/second

RESPONSE TIME: 1.5 seconds to settle for step input (increases with programmable digital filtering).

NORMAL MODE REJECTION: 40 dB at 50/60 Hz (may be improved by programmable digital filtering).

COMMON MODE REJECTION: 120 dB, DC to 50/60 Hz.

TEMPERATURE EFFECTS:

Operating Range: 0° to 50°C

Storage Range: -40° to 80°C

Span Temperature Coeff.: 40 ppm/°C

Zero Temperature Coeff.: 1 $\mu\text{V}/^\circ\text{C}$

EXCITATION: 18 VDC @ 60 mA max.

CONSTRUCTION: Case body is black, high impact plastic (panel gasket and mounting clips included). An optional NEMA 4 enclosure is available.

CONNECTION: Removable terminal blocks.

WEIGHT: 1.2 lbs.

Options

1. ALARMS:

Solid State: Two, isolated, sinking open collector NPN transistors acting in parallel with relays.

Imax: 100 mA @ $V_{SAT} = 1\text{V}$. V_{max} : 30 VDC.

Relays:

Type: Form C (2)

Rating: 5 Amps @ 120/250 VAC or 28 VDC (resistive load), 1/8 hp @ 120 VAC (inductive load).

2. ANALOG OUTPUT

Digital scaling and offsetting within 4–20 mA range

Accuracy: 0.1% of full scale

Resolution: 12 bits

Compliance Voltage: 10 VDC (500 ohms max. loop impedance)

3. TOTALIZER/LINEARIZER/PEAK/VALLEY/TARE

Front panel button for input/total display select.

External totalizer reset/enable. Programmable time-base, scale factor (.001–100.000) and low-end cutout. 9-segment multiple slope scaling for non-linear inputs. Peak and Valley recording. Signal re-zero (tare).

Ordering Information

To order the proper model, first select the options required from the three options listed above. Second, use the table below to find the associated model from the selected options. Also, an optional NEMA 4 enclosure for the S960 series indicators is available.

Model #	Option 1	Option 2	Option 3
S960			
S962	X		
S964		X	X
S966	X	X	X

