FEATURES

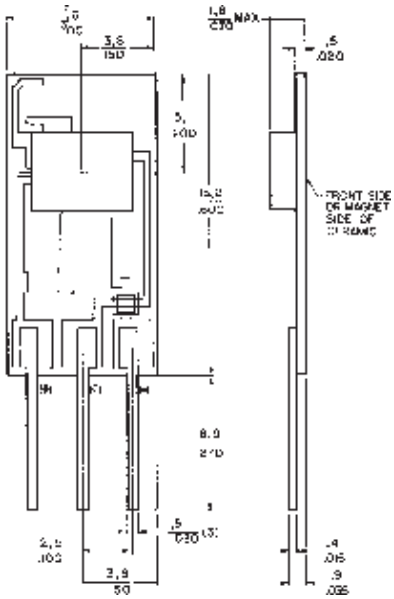
- Single current sinking or current sourcing linear output
- Improved temperature stability
- Three pin in-line printed circuit board terminals
- Standard .100″ mounting centers
- Laser trimmed thin film and thick film resistors minimize sensitivity variations and compensate for temperature variations
- Flux range of ±100 to ±2500 gauss

OPERATION

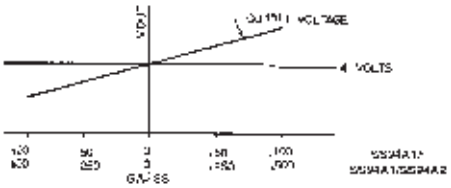
The SS9 utilizes a Hall effect integrated circuit chip which provides increased temperature stability and performance. Laser trimmed thick film resistors on the ceramic substrate and thin film resistors on the integrated circuit reduce null and gain shifts over temperature which results in consistent sensitivity from one device to the next.

MOUNTING DIMENSIONS (For reference only)

SS9



TYPICAL TRANSFER CHARACTERISTICS



SS9 ORDER GUIDE

Catalog Listing	SS94A1	SS94A1B	SS94A1E	SS94A1F	SS94A2	SS94A2C	SS94A2D
Main Feature	Gen. purpose	5 VDC operation	Low drift	High sensitivity	Noise shielded††	Noise shielded††	Noise shielded††
Supply Voltage (VDC)*	6.6 to 12.6	4.5 to 8.0	6.6 to 12.6	6.6 to 12.6	6.6 to 12.6	6.6 to 12.6	6.6 to 12.6
Supply Current (mA)**	13 typ. 30 max.	8 typ. 17.5 max.	13 typ. 30 max.	13 typ. 30 max.	13 typ. 30 max.	13 typ. 30 max.	13 typ. 30 max.
Output Current (mA) Sinking or Sourcing	1 max.	1 max.	1 max.	1 max.	1 max.	1 max.	1 max.
Response Time (μ sec.)	3 typ.	3 typ.	3 typ.	3 typ.	3 typ.	3 typ.	3 typ.
Magnetic Characteristics*** Span*	.625 V_S	.375 V_S	.625 V_S	.625 V_S	.625 V_S	.625 V_S	.625 V_S
Range (gauss)*	−500 to +500	−500 to +500	−500 to +500	−100 to +100	−500 to +500	−1000 to +1000	−2500 to +2500
Sensitivity (mV/gauss @ 25°C)	5.0±.1	1.875±.100	5.0±.1	25.0±.5	5.0±.1	2.50±.05	1.00±.02
Linearity† (% span)	−0.8 typ. −1.5 max.	−0.8 typ. −1.5 max.	−0.8 typ. −1.5 max.	−0.8 typ. −1.5 max.	−0.8 typ. −1.5 max.	−0.8 typ. −1.5 max.	−0.8 typ. −1.5 max.
Vout (0 gauss @ 25°C)***	4.00±.04V	2.50±.05V	4.00±.04V	4.00±.08V	4.00±.04V	4.00±.04V	4.00±.04V
Temperature Error (all %s reference 25°C value)* Null (%/°C)	±.02	±.025	±.01	±.10	±.02	±.0125	±.007
Gain (%/°C)	±.02	±.025	±.02	+.02 −.055	±.02	±.02	±.02

* −40° to 125°C.
** Excludes load. Typical at 25°C/Maximum at −40°C.
*** @ V_s = 5 VDC for SS94A1B only/@ V_s = 8 VDC for all others.
† Derived from straight line between end points.
†† Silver coating on back of ceramic is electrically connected to − terminal.
Specified using a 2.2KΩ resistor unless otherwise noted.

MilliTesla = Gauss 10^{-1}

Null voltage (Vout at 0 gauss) and sensitivity are ratiometric to supply voltage.

Magnets page 25.

Application consideration: The output is clamped at the high end. Clamping voltage may be as low as 9VDC. The output will not exceed the clamping voltage regardless of field strength or supply voltage.

Analog