

Installation Instructions for SS49/SS19 Series Analog Position Sensors

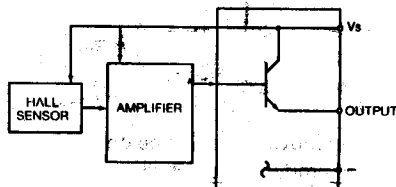
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GENERAL INFORMATION

Analog devices are designed to produce an output voltage proportional to the intensity of the magnetic field to which they are exposed.

BLOCK DIAGRAM

Current Sourcing Output



SOLDERING/ASSEMBLY SS49

Leads must be adequately supported during any forming/shearing operation to ensure that the leads are not stressed inside the plastic case.

Hand Soldering - Use 60/40 rosin core solder, employing a 399°C (750°F) controlled temperature, 1/8" chisel tip soldering iron. To avoid overheating the integrated circuit, do not hold the iron on the terminals for more than four seconds. The temperature of the lead at the plastic package interface must not exceed 250°C (482°F).

Wave Soldering - Use Lonceflux 106A35 or equivalent. Preheaters should be set for 95°C (200°F) on top (component side) of the PC board just prior to board entering wave. (This may have to be adjusted depending upon board thickness.) Solder temperature should be a maximum of 260°C (500°F), preferably 252°C to 260°C (485°F to 500°F). Set conveyor speed to approximately 4.5 feet per minute (1.37 meter/min.). Select a speed which gives full solder fillets and minimum of bridging and icicles. The printed circuit board requires rigid support during wave soldering.

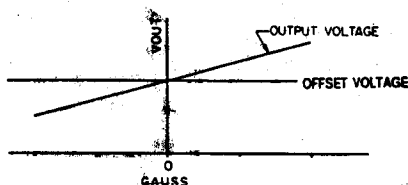
SS19 SS19T

Exposure to high temperatures should be kept at a minimum. MICRO SWITCH recommends an infrared reflow process with peak temperature adjusted not to exceed 190-200°C (374-392°F) for 10 seconds maximum.

CLEANING

Proper cleaning fluids should be selected, based on the type of contaminants to be removed. MICRO SWITCH recommends manual cleaning with alcohols or fluorinated solvents.

TRANSFER CHARACTERISTICS



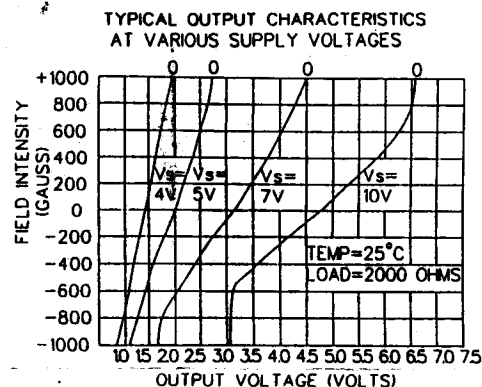
SS49/SS19 ELECTRICAL CHARACTERISTICS

Supply Voltage	4 to 10 VDC
Supply Current	4 mA typ.
Output Type	Sourcing
Output Voltage @ 0 Gauss	1.75 to 2.25 V @ 5 V, 25°C
Sensitivity (measured between -400 and +400-gauss)	Min. 0.60 mV/G Typ. 0.90 mV/G Max. 1.25 mV/G

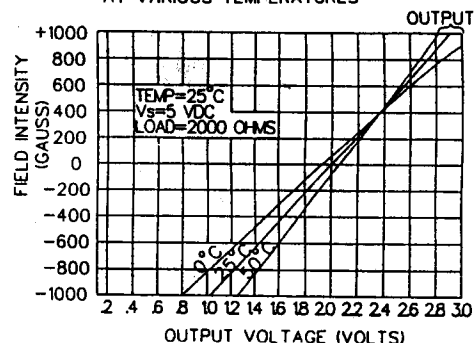
ABSOLUTE MAXIMUM RATINGS

Supply voltage (V_s)	+12 VDC max. -12 VDC min.
Output current	20 mA
Operating temperature	-40 to +100°C (-40 to +212°F)
Storage temperature	-55 to +150°C (-67 to +302°F)
Magnetic flux	No limit. Circuit cannot be damaged by magnetic overdrive

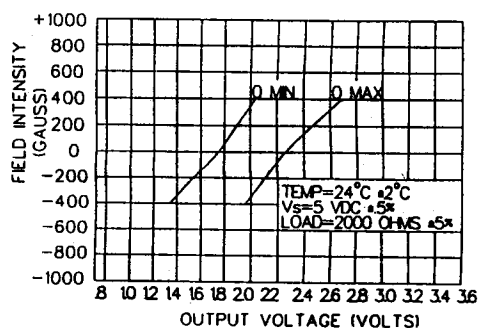
TYPICAL OUTPUT CHARACTERISTICS



TYPICAL OUTPUT CHARACTERISTICS AT VARIOUS TEMPERATURES



TEST LIMITS

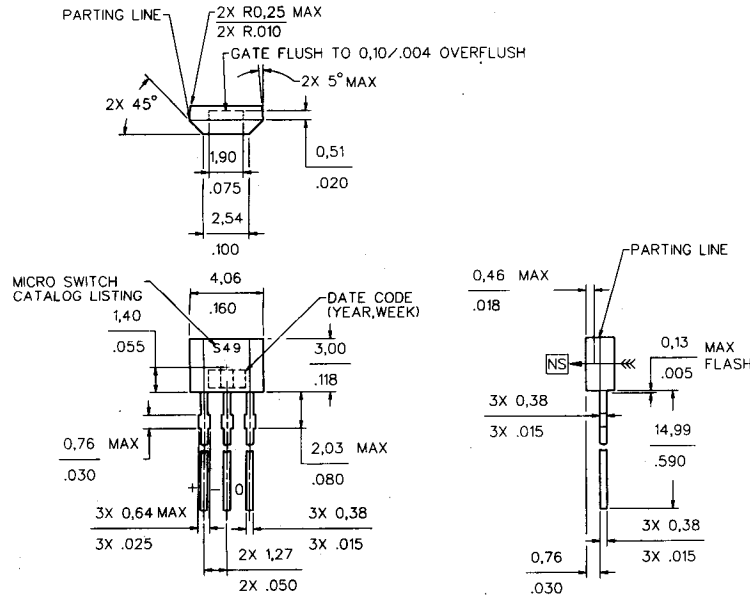


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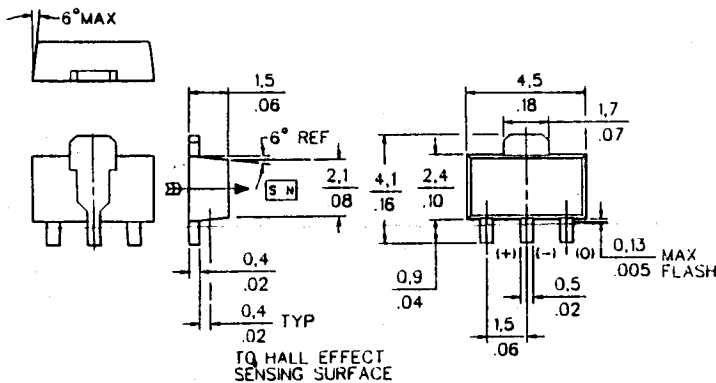
MOUNTING DIMENSIONS

(for reference only)

SS49 Series



SS19 Series



SALES AND SERVICE

MICRO SWITCH serves its customers through a worldwide network of sales offices and distributors. For application assistance, pricing or name of nearest Authorized Distributor, contact a nearby MICRO SWITCH sales office. Or contact:

MICRO SWITCH
11 W. Spring Street
Freeport, Illinois 61032
Tel. 815/235-6600

While we provide assistance on MICRO SWITCH products, personally and through our literature, it is up to the customer to determine the suitability of the product in the application.

WARRANTY/REMEDY

Seller warrants its products to be free from defect in design, material and workmanship under normal use and service. Seller will repair or replace without charge any such product it finds to be so defective on its return to Seller within 18 months after date of shipment by Seller. **The foregoing is in lieu of all other expressed or implied warranties (except of title), including those of merchantability and fitness for a particular purpose.** The foregoing is also Purchaser's sole remedy and is in lieu of all other guarantees, obligations, or liabilities or any consequential, incidental, or punitive damages attributable to negligence or strict liability, all by way of example.

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