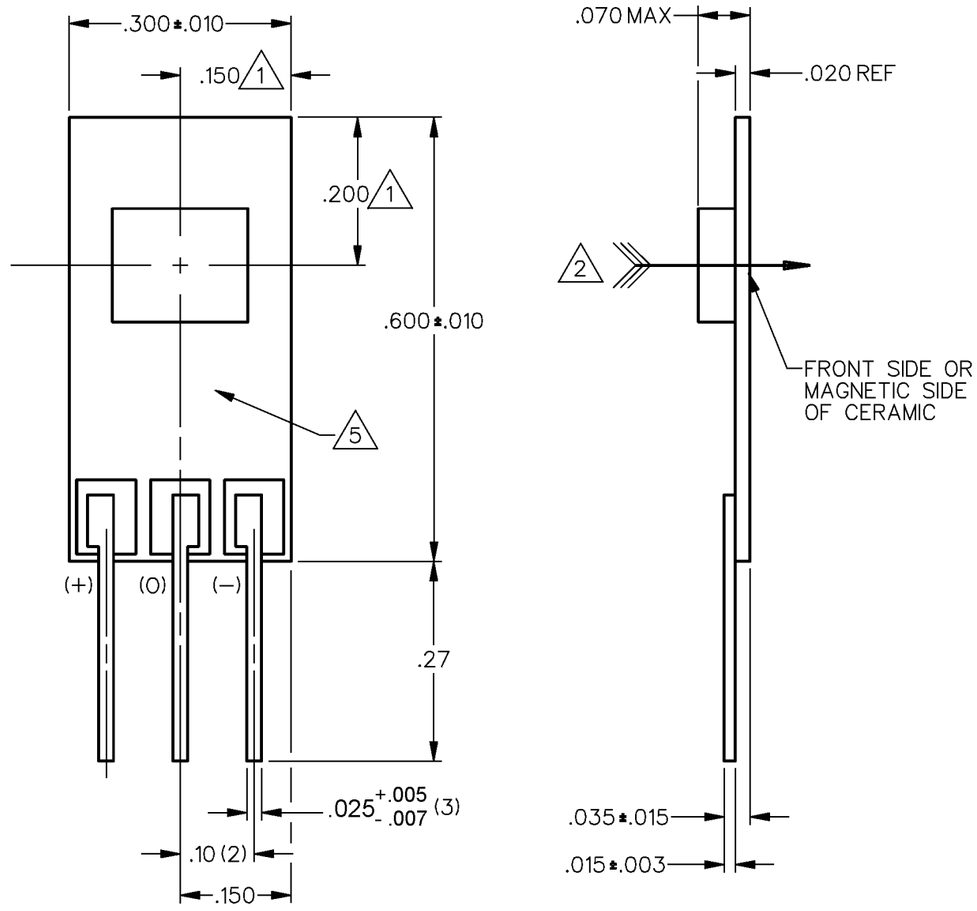
MICRO SWITCH
a Honeywell Division
FED. MFG. CODE 91929

LINEAR OUTPUT HALL EFFECT TRANSDUCER

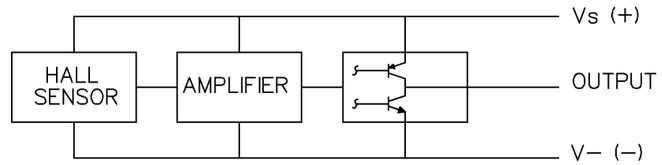
CATALOG LISTING
SS94B1



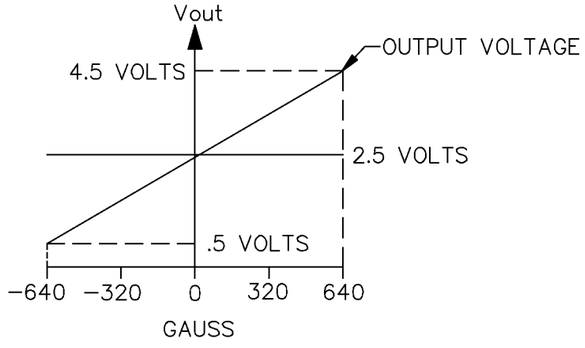
SPECIFICATIONS 6

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
SENSITIVITY	TA = 25°C	3.062	3.125	3.188	mV/GAUSS
NULL	TA = 25°C	2.47	2.50	2.53	VOLTS
SUPPLY CURRENT	TA = 25°C		8	11	mA
OUTPUT CURRENT (SINK OR SOURCE)		1.0	2.0		mA
OUTPUT VOLTAGE SWING					
VOM −	−B APPLIED	.5	.4		VOLTS
VOM +	+B APPLIED	Vs −.5	Vs −.4		VOLTS
B LIMITS FOR LINEAR	−B MAX	−640	−670		GAUSS
OPERATION	+B MAX	+640	+670		GAUSS
Vnull DRIFT	B = 0	−.03		+.03	%/°C
SENSITIVITY DRIFT		−.03		+.03	%/°C
LINEARITY	−BMAX TO +BMAX	0	−.5	−1.0	% OF SPAN
SUPPLY VOLTAGE		4.5		12	VOLTS
OPERATING TEMP		−55		150	°C

BLOCK DIAGRAM CURRENT SINKING OR SOURCING OUTPUT



TRANSFER CHARACTERISTICS AT Vs=5.0 VDC



NOTES
1. CENTERLINE OF HALL CELL(IC) ONLY. THE LOCATION OF THE CERAMIC COVER IS NOT SPECIFIED
2. THE + MAGNETIC FLUX IS IN THIS DIRECTION (THIS ASSUMES THE CONVENTION THAT THE DIRECTION OF THE EXTERNAL FLUX OF A MAGNET IS FROM THE NORTH TO THE SOUTH POLE OF THE MAGNET)
3. − THE DEVICE CANNOT BE DAMAGED BY MAGNETIC OVERDRIVE
4. − OUTPUT TYPE − RATIOMETRIC
5. ARTWORK IS TYPICAL
6. ALL CHARACTERISTICS ARE −40°C TO 125°C UNLESS OTHERWISE STATED WITH Vs = 5.000 VDC

CAUTION ELECTROSTATIC SENSITIVE DEVICES
ESD SENSITIVITY: CLASS 3

THIRD ANGLE PROJECTION
SCALE 5 : 1
DO NOT SCALE PRINT

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE

ONE PLACE	(.0)	±.030
TWO PLACE	(.00)	±.015
THREE PLACE	(.000)	±.005
ANGLES		±

WEIGHT

CATALOG LISTING SS94B1 PAGE 1 OF 2
RELEASE NO. PR-18390
REPLACES X90102-SS
ISSUE M 7

REVISIONS

A	CO-95704	DLM 16 MAR 00							
B	0038690	PRS 14APR08							
C	0039911	SS 19MAY08							

DRAWN	CHECK	CHECK	SAV	CHECK	BLR	CHECK	CHECK
DLM 16 MAR 00	16 MAR 00		16 MAR 00		19MAY08		

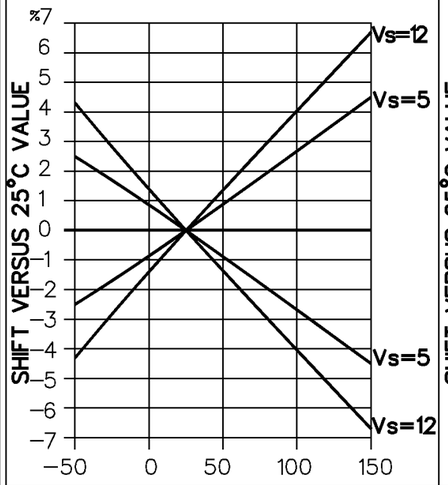
RASTER

MICRO SWITCH
a Honeywell Division
FED. MFG. CODE 91929

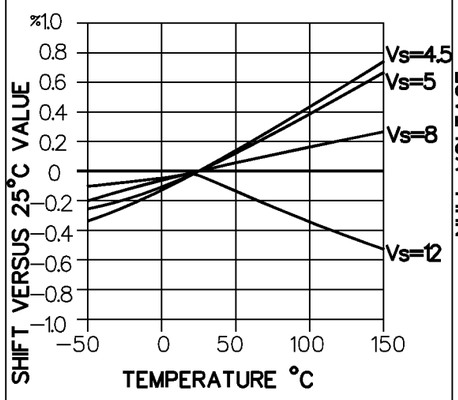
LINEAR OUTPUT HALL EFFECT TRANSDUCER

CATALOG LISTING
SS94B1

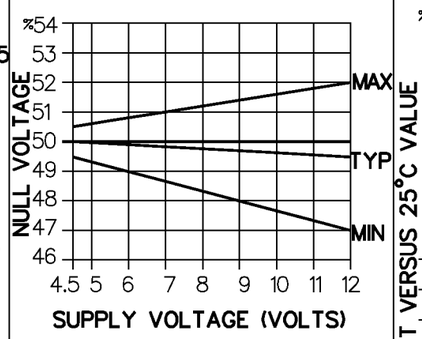
NULL SHIFT LIMITS VERSUS TEMP



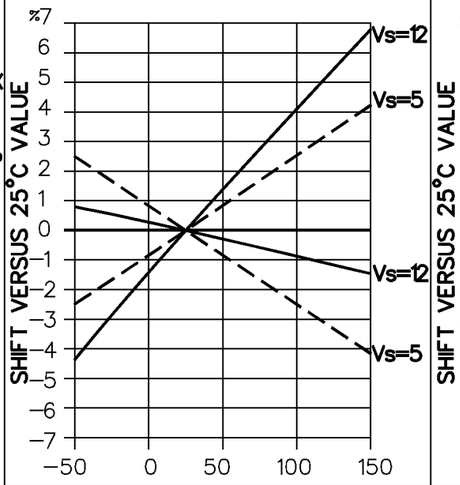
TYPICAL NULL SHIFT VERSUS TEMP



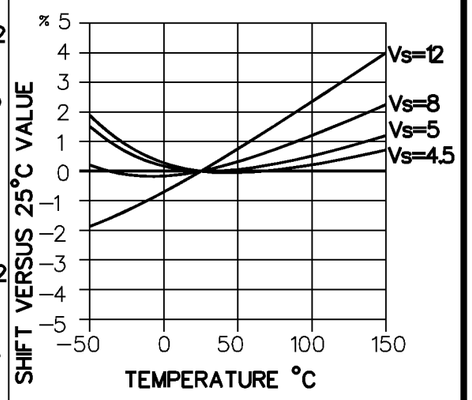
RATIO OF Vnull TO Vsupply



GAIN SHIFT LIMITS VERSUS TEMP

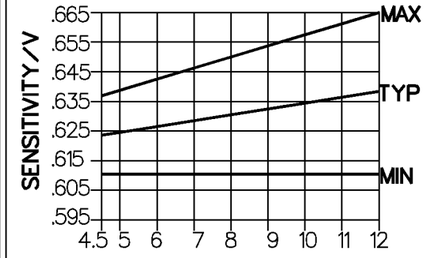


TYPICAL GAIN SHIFT VERSUS TEMP



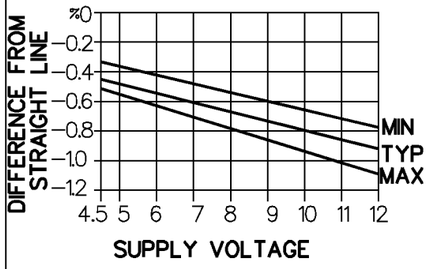
SENSITIVITY/V VERSUS SUPPLY VOLTAGE

(mV/GAUSS/V)



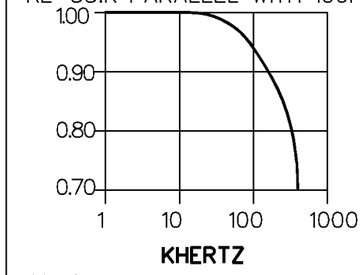
TO CALCULATE SENSITIVITY, MULTIPLY Y−AXIS VALUE TIMES SUPPLY VOLTAGE

LINEARITY VERSUS SUPPLY VOLTAGE END POINTS OF SPAN METHOD



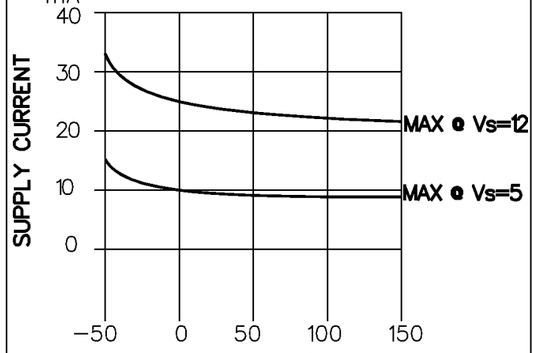
TYPICAL FREQUENCY RESPONSE

Vs=8.0
RL=33.K PARALLEL WITH 100PF



Vout
Vout @ 1KHZ

SUPPLY CURRENT VERSUS TEMP



CAUTION
ELECTROSTATIC SENSITIVE DEVICES
DO NOT OPEN OR HANDLE EXCEPT AT STATIC FREE WORKSTATIONS
ESD SENSITIVITY: CLASS 3

THIRD ANGLE PROJECTION

SCALE NONE

DO NOT SCALE PRINT

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE

ONE PLACE	(.0)	±.030
TWO PLACE	(.00)	±.015
THREE PLACE	(.000)	±.005
ANGLES		±

WEIGHT

SS94B1 PAGE 2 OF 2
RELEASE NO. PR−18390
REPLACES X90102−SS
DRAWING NUMBER M
ISSUE 7

REVISIONS			
A	C069133	J A S 29 NOV 90	
B	C093789	D L T 3 NOV 98	
C	CO-95704	DLM 16 MAR 00	
D	0038690	PRS 14 APR 08	
E	0039911	SS 19MAY08	

	DRAWN	CHECK
RASTER	J A S 11 SEP 90	
	K A G 14 SEP 90	
		J B 17 SEP 90
		M J B CHECK