

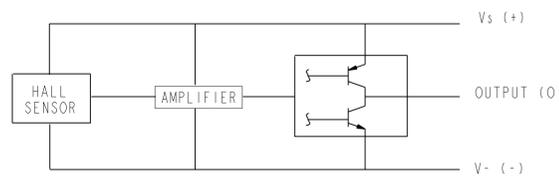
CHARACTERISTICS ARE AT $V_s=5.0$ WITH 4.7K OUTPUT TO MINUS WITH $T_A=-40^{\circ}\text{C}$ TO $+125^{\circ}\text{C}$ UNLESS OTHERWISE SPECIFIED

SS495A

SS495 SERIES CHART 1

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
SENSITIVITY	$T_A = 25^{\circ}\text{C}$	3.00	3.125	3.25	mV/GAUSS
NULL	$T_A = 25^{\circ}\text{C}$	2.425	2.50	2.575	VOLTS
SUPPLY CURRENT	$T_A = 25^{\circ}\text{C}$		7	8.7	mA
OUTPUT CURRENT	SOURCE $V_s > 4.5$	1mA	1.5mA		
	SINK $V_s > 4.5$.6mA	1.5mA		
	SINK $V_s > 5.0$	1mA	1.5mA		
RESPONSE TIME			3μS		
OUTPUT VOLTAGE SWING	VOM -	.4	.2		VOLTS
	VOM +	$V_s - .4$	$V_s - .2$		VOLTS
B LIMITS FOR LINEAR OPERATION	-B MAX	-600	-670		GAUSS
	+B MAX	+600	+670		GAUSS
V_{null} DRIFT	$B = 0, T_A = 25^{\circ}\text{C TO } 125^{\circ}\text{C}$	-.06		+.06	% / °C
V_{null} DRIFT	$B = 0, T_A = -125^{\circ}\text{C TO } +150^{\circ}\text{C}$	-.08		+.08	% / °C
SENSITIVITY DRIFT	$T_A = +25^{\circ}\text{C TO } +150^{\circ}\text{C}$	-.01		+.05	% / °C
SENSITIVITY DRIFT	$T_A = -40^{\circ}\text{C TO } +25^{\circ}\text{C}$	0		+.06	% / °C
LINEARITY	$B = -600 \text{ TO } +600$	0	-1.0	-1.5	% OF SPAN
SUPPLY VOLTAGE	$-40^{\circ}\text{C TO } +125^{\circ}\text{C}$	4.5	5.0	10.5	VOLTS
OPERATING TEMP	SEE MAX TEMPERATURE CHART	-40		+150	°C

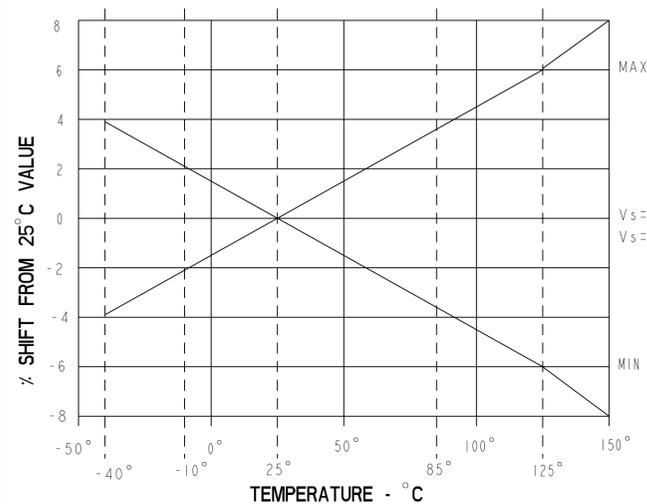
BLOCK DIAGRAM CURRENT SINKING OR SOURCING OUTPUT



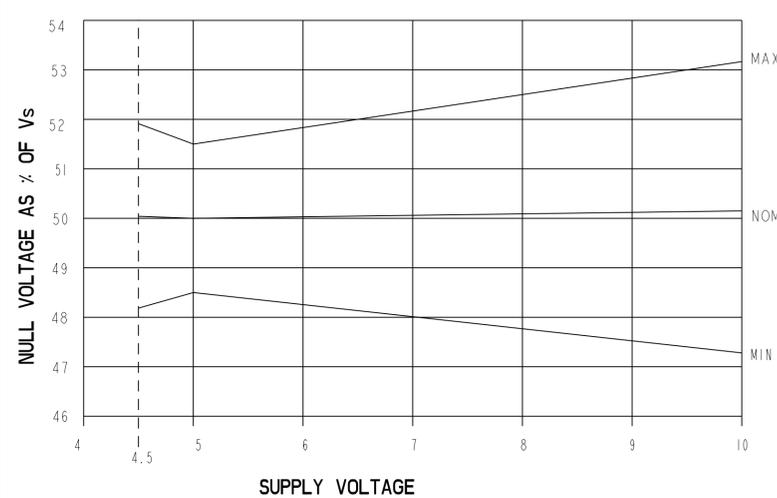
ABSOLUTE MAXIMUM CHARACTERISTICS

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
SUPPLY VOLTAGE	V_{cc}		-0.5	11	V
OUTPUT VOLTAGE	V_{out}		-0.5	11	V
OUTPUT CURRENT	I_{out}	SOURCE OR SINK		10	mA
TEMPERATURE	T_A	OPERATING	-55	150	°C
	T_s	STORAGE ($V_{cc}=0$)	-55	165	°C

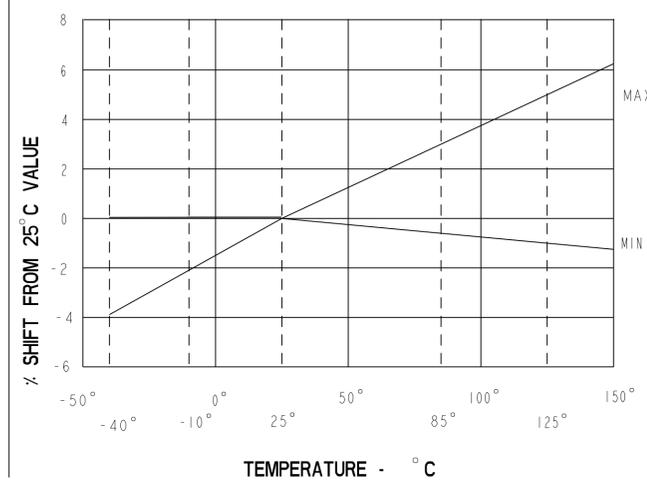
NULL SHIFT VERSUS TEMPERATURE



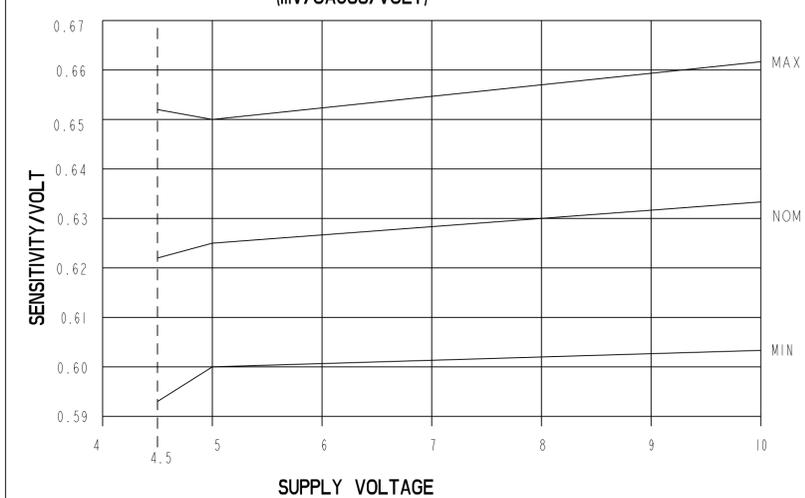
RATIO OF V_{null} TO V_s



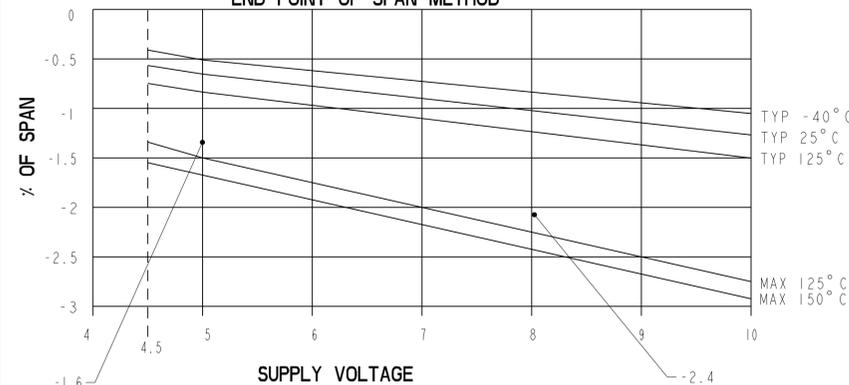
SENSITIVITY SHIFT VERSUS TEMPERATURE



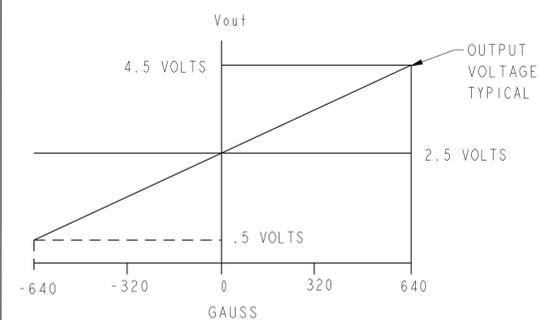
SENSITIVITY/V VERSUS V_s
(mV/GAUSS/VOLT)



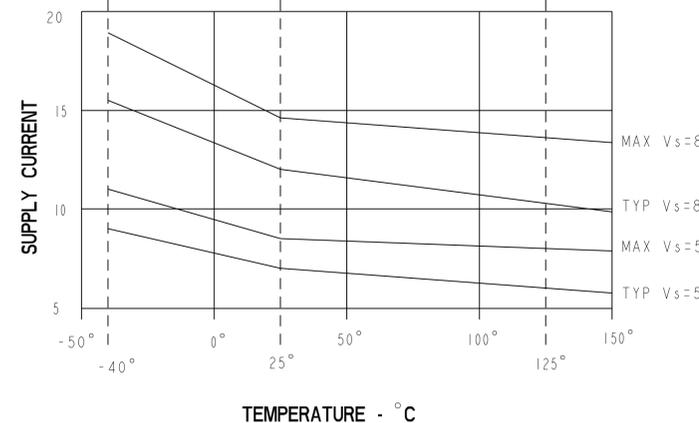
LINEARITY VERSUS V_s
END POINT OF SPAN METHOD



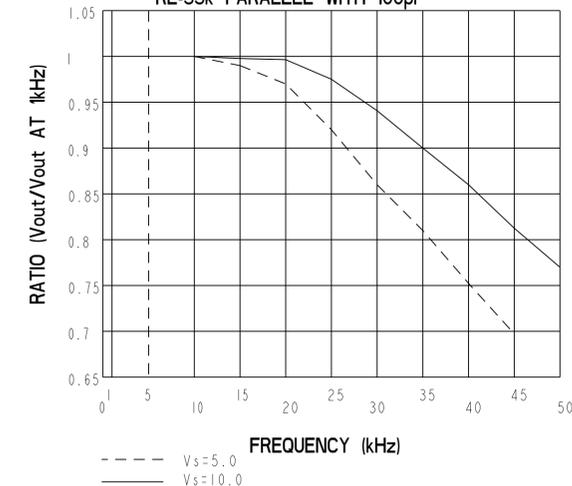
TRANSFER CHARACTERISTICS AT $V_s=5.0$ VDC



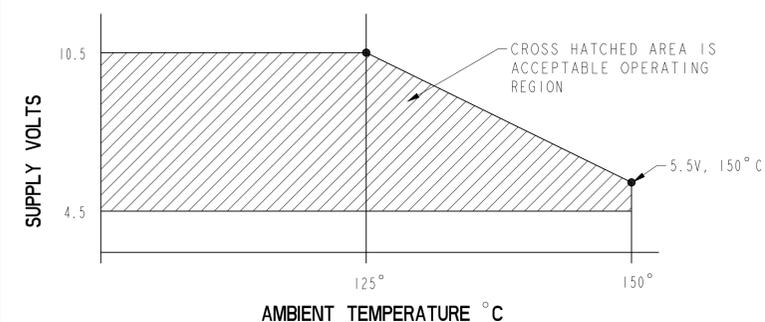
SUPPLY CURRENT VERSUS TEMPERATURE



TYPICAL FREQUENCY RESPONSE
RL=33k PARALLEL WITH 100pF



MAXIMUM ALLOWABLE AMBIENT TEMPERATURE



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CATALOG LISTING
MICRO SWITCH
a Honeywell Division
**MINIATURE RATIO-METRIC
LINEAR HALL EFFECT SENSOR**
SS495 SERIES CHART 1

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	+2°
WEIGHT	

ANSI Y14.5M-1982 APPLIES

PTC/CAD 2D
 DRAWN: C.S.L.
 CHECK: L.A.
 APPROVED: S.A.V.
 DATE: 4 APR 02
 RELEASE NO. PR-21283
 REVISIONS:
 14
 ISSUE: 14
 DRAWING NUMBER: 14
 DRAWING TITLE: SS495 SERIES CHART 1
 MICRO SWITCH
 1400 W. 14th St.
 Grand Rapids, MI 49508
 616-235-0000
 FAX: 616-235-0001
 WWW.MICROSWITCH.COM

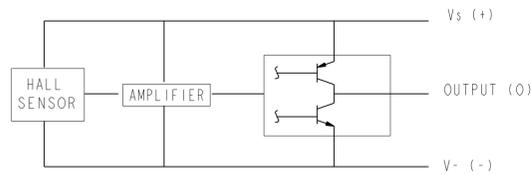
CHARACTERISTICS ARE AT $V_s=5.00$ WITH 4.7K OUTPUT TO MINUS WITH $T_A = -40^\circ\text{C}$ TO $+125^\circ\text{C}$ UNLESS OTHERWISE SPECIFIED

SS495A1

SS495 SERIES CHART 1

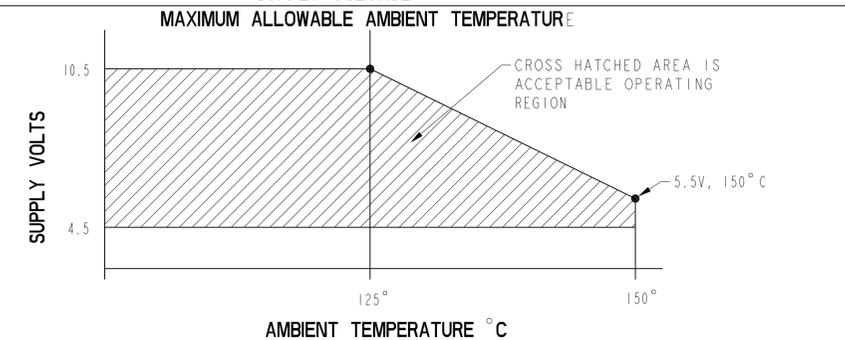
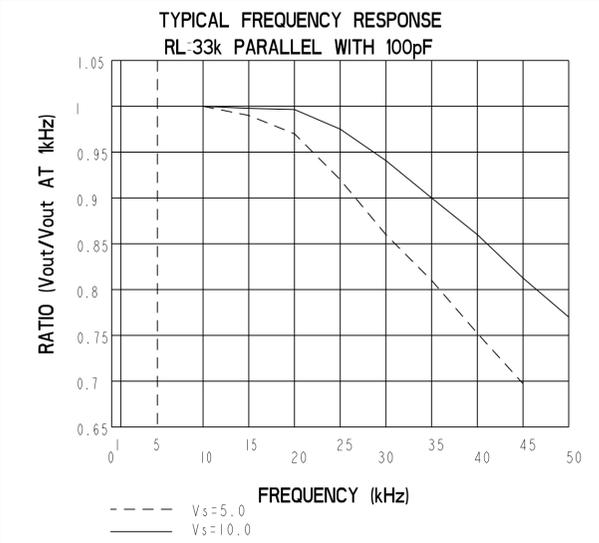
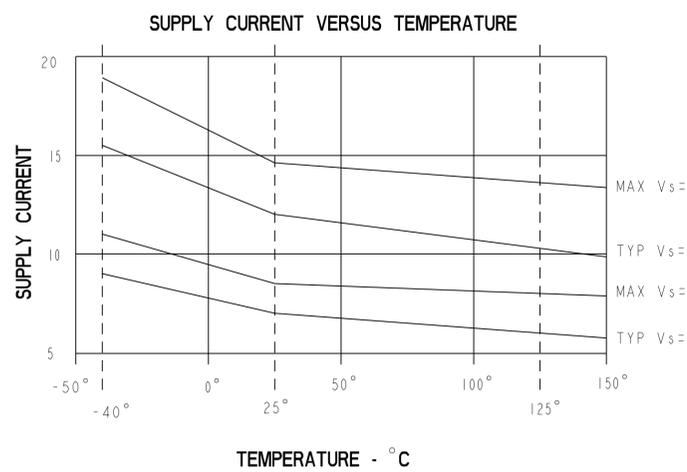
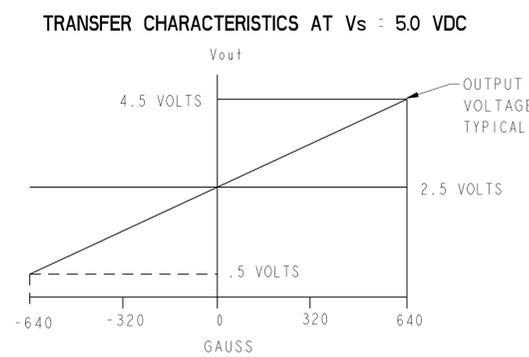
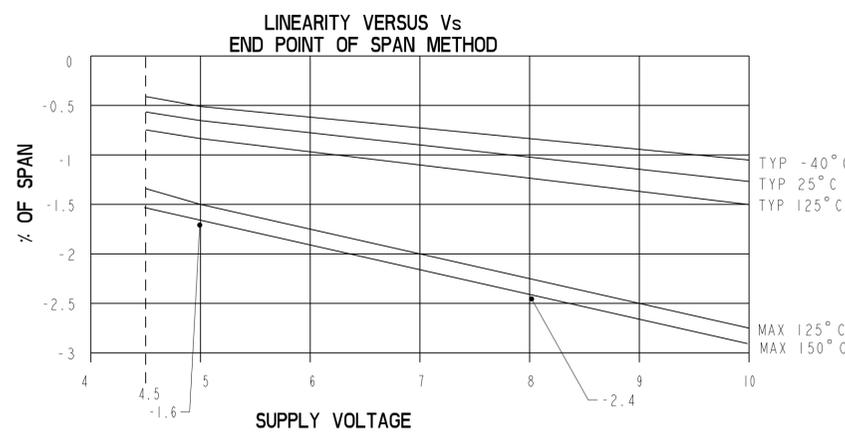
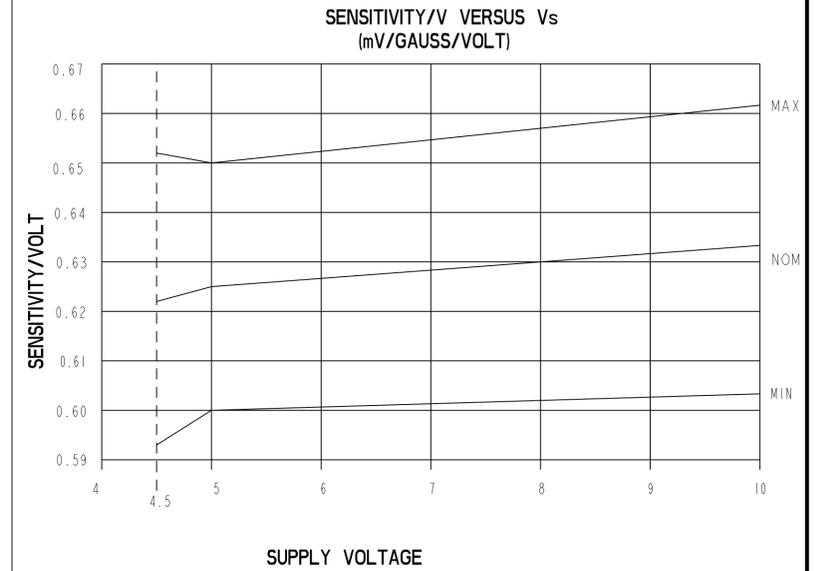
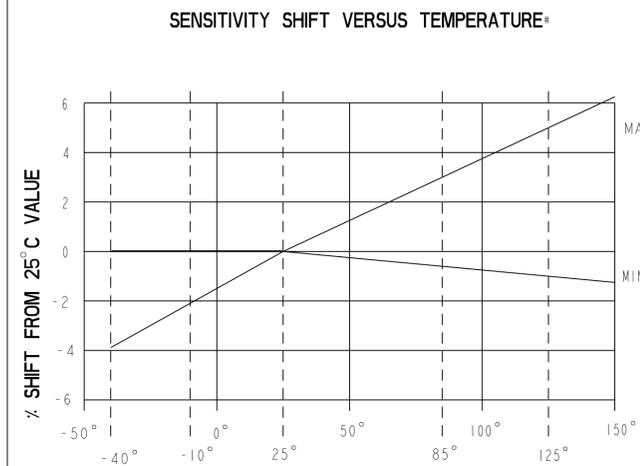
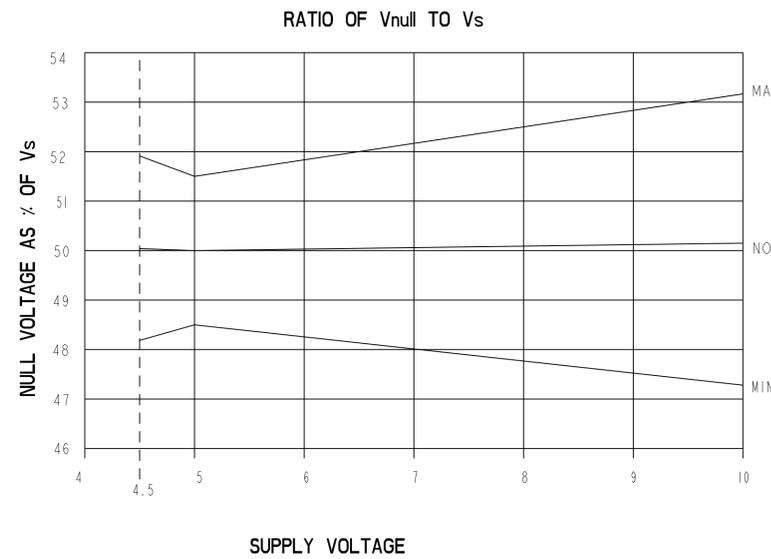
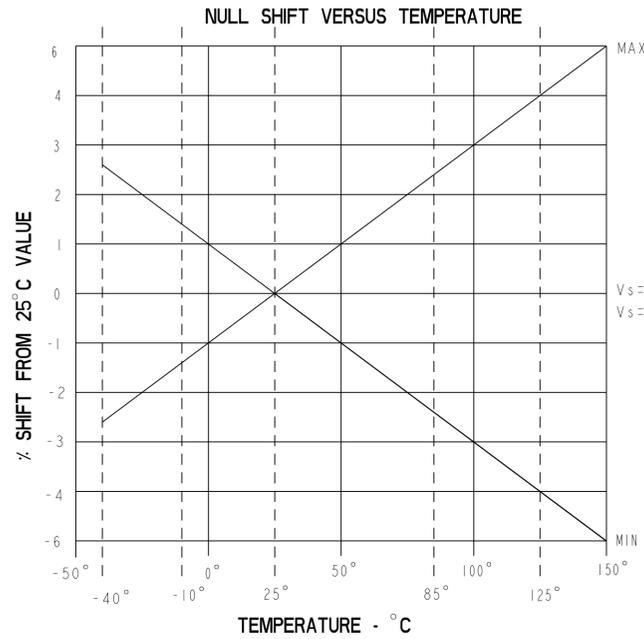
PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
SENSITIVITY	$T_A = 25^\circ\text{C}$	3.031	3.125	3.219	mV/GAUSS
NULL	$T_A = 25^\circ\text{C}$	2.425	2.50	2.575	VOLTS
SUPPLY CURRENT	$T_A = 25^\circ\text{C}$		7	8.7	mA
OUTPUT CURRENT SOURCE	$V_s > 4.5$	1mA	1.5mA		
	SINK	$V_s > 4.5$.6mA	1.5mA	
	SINK	$V_s > 5.0$	1mA	1.5mA	
RESPONSE TIME			3 μs		
OUTPUT VOLTAGE SWING	VOM -		.4	.2	VOLTS
	VOM +	+B APPLIED	$V_s - .4$	$V_s - .2$	VOLTS
B LIMITS FOR LINEAR OPERATION	-B MAX	-600	-670		GAUSS
	+B MAX	+600	+670		GAUSS
V_{null} DRIFT	$B = 0, T_A = 25^\circ\text{C}$ TO 125°C	-.04		+.04	% / $^\circ\text{C}$
V_{null} DRIFT	$B = 0, T_A = +125^\circ\text{C}$ TO $+150^\circ\text{C}$	-.08		+.08	% / $^\circ\text{C}$
SENSITIVITY DRIFT	$T_A = +25^\circ\text{C}$ TO $+150^\circ\text{C}$	-.01		+.05	% / $^\circ\text{C}$
SENSITIVITY DRIFT	$T_A = -40^\circ\text{C}$ TO $+25^\circ\text{C}$	0		+.06	% / $^\circ\text{C}$
LINEARITY	$B = -600$ TO $+600$	0	-1.0	-1.5	% OF SPAN
SUPPLY VOLTAGE	-40°C TO $+125^\circ\text{C}$	4.5	5.0	10.5	VOLTS
OPERATING TEMP	SEE MAX TEMPERATURE CHART	-40		+150	$^\circ\text{C}$

BLOCK DIAGRAM CURRENT SINKING OR SOURCING OUTPUT



ABSOLUTE MAXIMUM CHARACTERISTICS

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
SUPPLY VOLTAGE	V_{cc}		-0.5	11	V
OUTPUT VOLTAGE	V_{out}		-0.5	11	V
OUTPUT CURRENT	I_{out}	SOURCE OR SINK		10	mA
TEMPERATURE	T_A	OPERATING	-55	150	$^\circ\text{C}$
	T_s	STORAGE ($V_{cc}=0$)	-55	165	$^\circ\text{C}$



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MICRO SWITCH
 a Honeywell Division
MINIATURE RATIO-METRIC LINEAR HALL EFFECT SENSOR
 SS495 SERIES CHART 1
 CATALOG LISTING

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	+2°
WEIGHT	

ANSI Y14.5M-1982 APPLIES

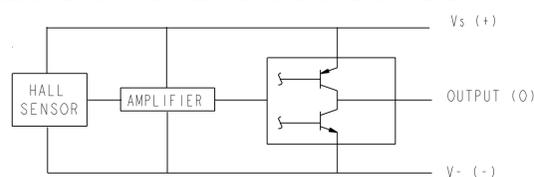
CHARACTERISTICS ARE AT $V_s=5.00$ WITH 4.7K OUTPUT TO MINUS WITH $T_A: -40^{\circ}\text{C}$ TO $+125^{\circ}\text{C}$ UNLESS OTHERWISE SPECIFIED

SS495A2

SS495 SERIES CHART 1

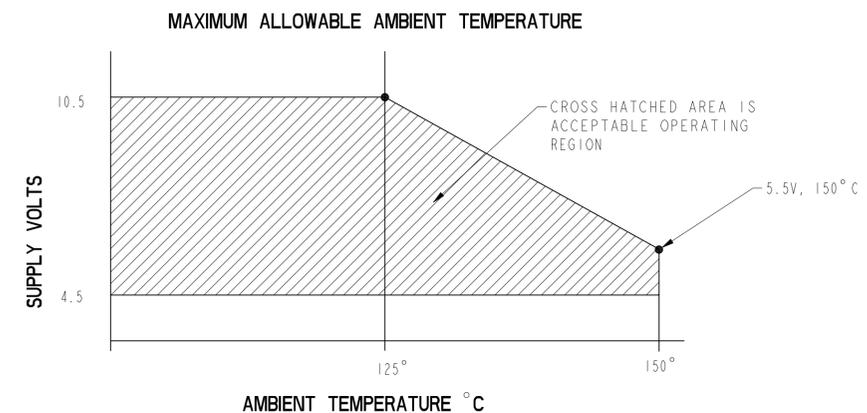
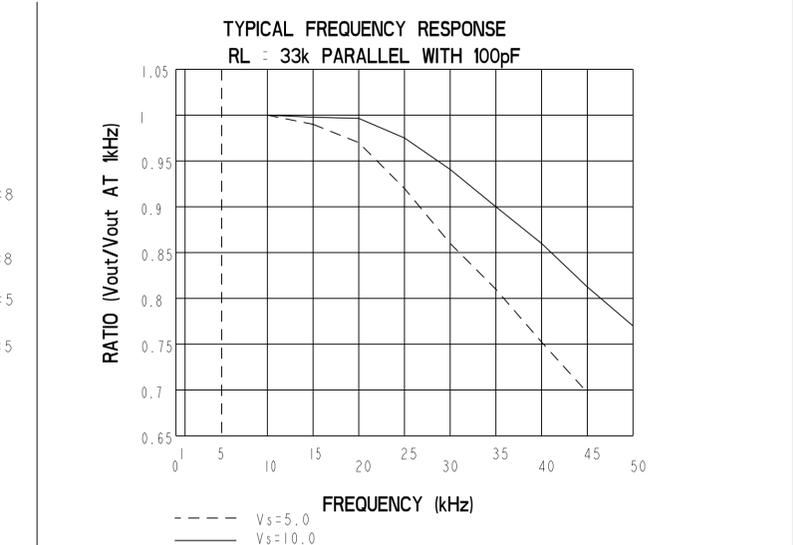
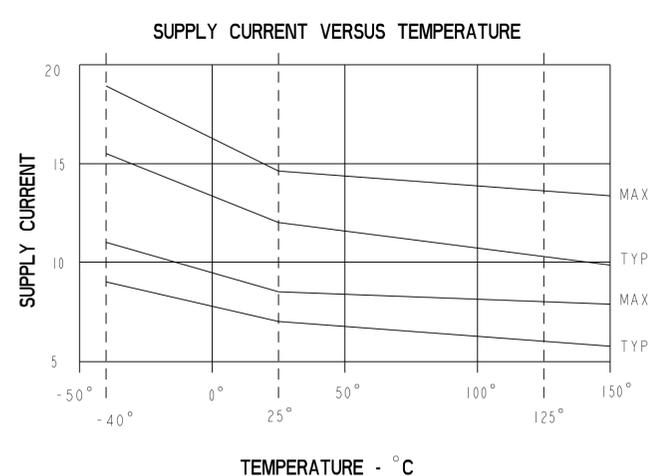
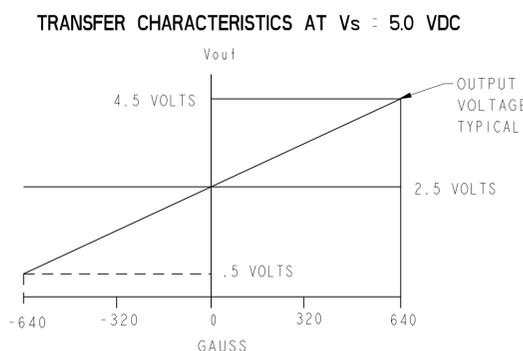
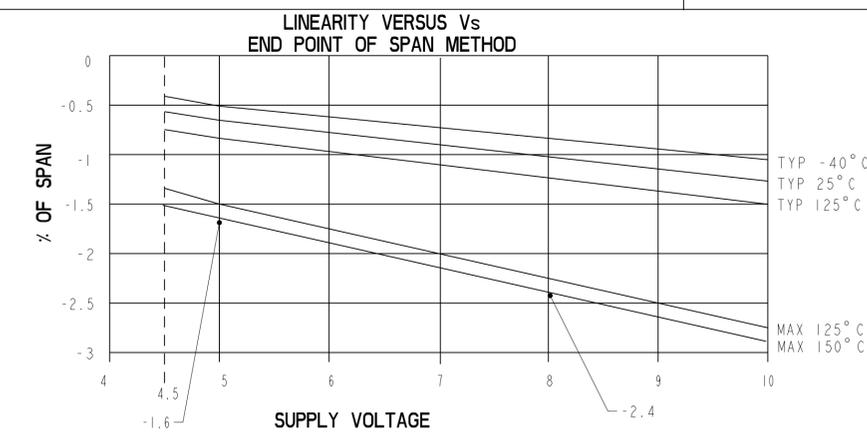
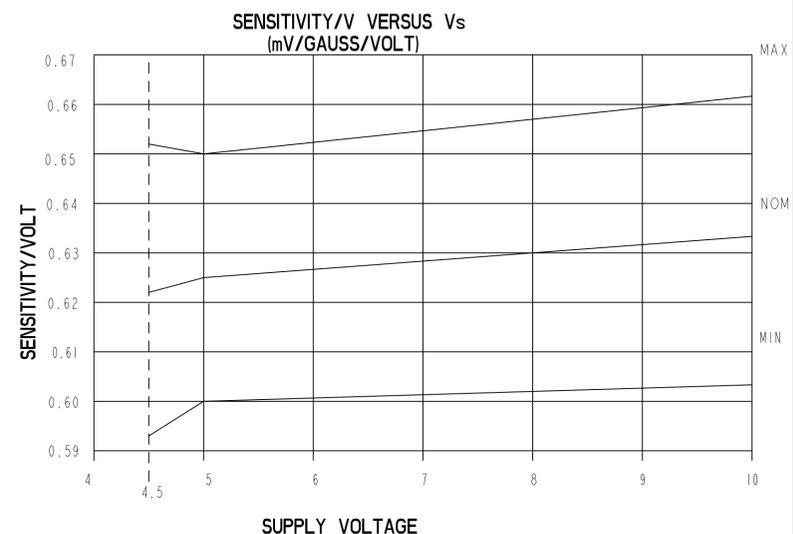
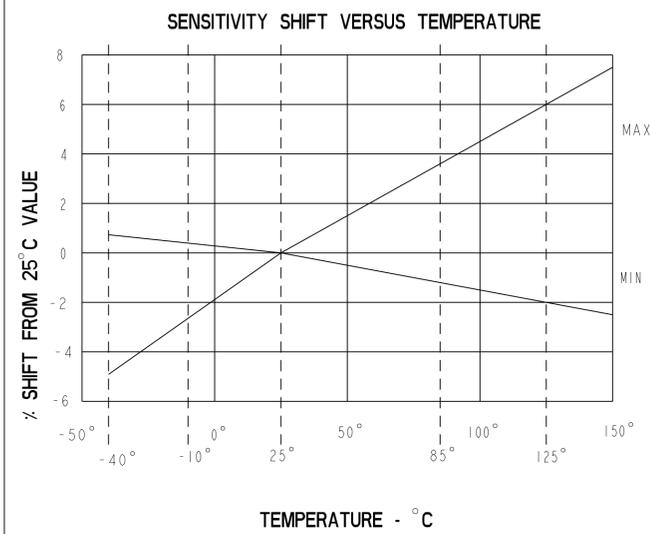
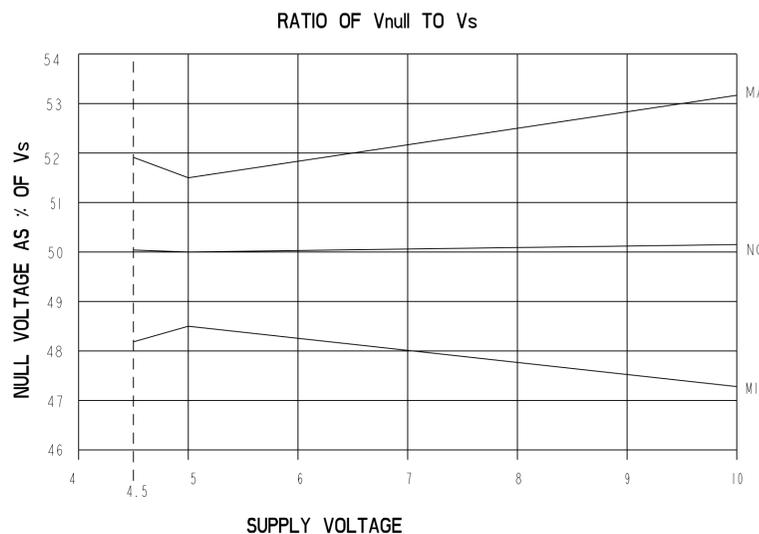
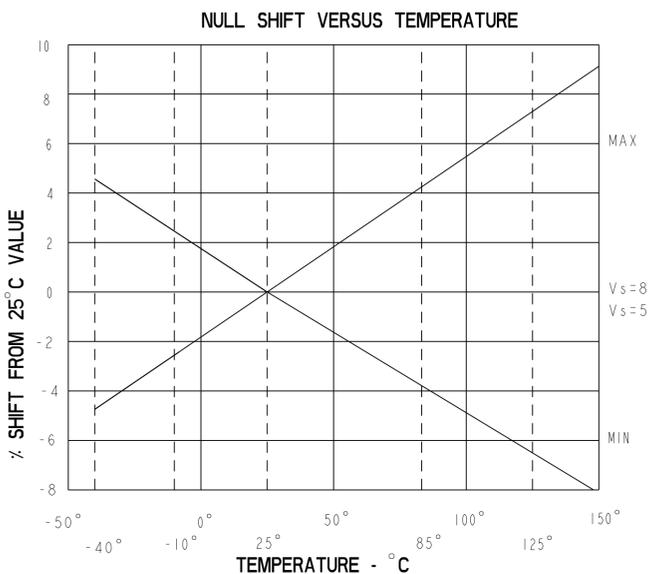
PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
SENSITIVITY	$T_A = 25^{\circ}\text{C}$	2.969	3.125	3.281	mV/GAUSS
NULL	$T_A = 25^{\circ}\text{C}$	2.400	2.50	2.600	VOLTS
SUPPLY CURRENT	$T_A = 25^{\circ}\text{C}$		7	8.7	mA
OUTPUT CURRENT SOURCE	$V_s > 4.5$	1mA	1.5mA		
SINK	$V_s > 4.5$.6mA	1.5mA		
SINK	$V_s > 5.0$	1mA	1.5mA		
RESPONSE TIME			3 μs		
OUTPUT VOLTAGE SWING					
VOM -	-B APPLIED	.4	.2		VOLTS
VOM +	+B APPLIED	$V_s - .4$	$V_s - .2$		VOLTS
B LIMITS FOR LINEAR OPERATION					
-B MAX		-600	-670		GAUSS
+B MAX		+600	+670		GAUSS
V_{null} DRIFT	$B = 0, T_A = 25^{\circ}\text{C}$ TO 125°C	-.07		+.07	% / $^{\circ}\text{C}$
V_{null} DRIFT	$B = 0, T_A = +125^{\circ}\text{C}$ TO $+150^{\circ}\text{C}$	-.08		+.08	% / $^{\circ}\text{C}$
SENSITIVITY DRIFT	$T_A = +25^{\circ}\text{C}$ TO $+150^{\circ}\text{C}$	-.02		+.06	% / $^{\circ}\text{C}$
SENSITIVITY DRIFT	$T_A = -40^{\circ}\text{C}$ TO $+25^{\circ}\text{C}$	-.01		+.07	% / $^{\circ}\text{C}$
LINEARITY	$B = -600$ TO $+600$	0	-1.0	-1.5	% OF SPAN
SUPPLY VOLTAGE	-40°C TO $+125^{\circ}\text{C}$	4.5	5.0	10.5	VOLTS
OPERATING TEMP	SEE MAX TEMPERATURE CHART	-40		+150	$^{\circ}\text{C}$

BLOCK DIAGRAM CURRENT SINKING OR SOURCING OUTPUT



ABSOLUTE MAXIMUM CHARACTERISTICS

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
SUPPLY VOLTAGE	V_{cc}		-0.5	11	V
OUTPUT VOLTAGE	V_{out}		-0.5	11	V
OUTPUT CURRENT	I_{out}	SOURCE OR SINK	10		mA
TEMPERATURE	T_A	OPERATING	-55	150	$^{\circ}\text{C}$
	T_s	STORAGE ($V_{cc}=0$)	-55	165	$^{\circ}\text{C}$



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MICRO SWITCH
a Honeywell Division

MINIATURE RATIO-METRIC LINEAR HALL EFFECT SENSOR

SS495 SERIES CHART 1

CATALOG LISTING

ONE PLACE	(.0)	+ .030
TWO PLACE	(.00)	+ .015
THREE PLACE	(.000)	+ .005
ANGLES		+ 2°
WEIGHT		

PTC/CAD 20
 DRAWN: C.S.L. 15 APR 02
 CHECK: SAV 5 APR 02
 APPROVED: [Signature]
 RELEASE NO. PR-22532
 SS495 SERIES CHART 1
 DRAWING NUMBER: 4 OF 5
 ISSUE: 14
 DATE: 26 OCT 01
 CHECKED: [Signature]
 APPROVED: [Signature]

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