

Temperature Compensated, Digital Hall-Effect Sensor ICs

Table 4. Magnetic Characteristics

Temperature	Operating Characteristic	Catalog Listing						
		SS411A SS411A-L SS411A-T2 SS411A-T3	SS413A SS413A-L SS413A-T2 SS413A-T3	SS441A SS441A-L SS441A-T2 SS441A-T3	SS443A SS443A-L SS443A-T2 SS443A-T3	SS449A SS449A-L SS449A-T2 SS449A-T3	SS461A SS461A-L SS461A-T2 SS461A-T3	SS466A SS466A-L SS466A-T2 SS466A-T3
		Bipolar	Bipolar	Unipolar	Unipolar	Unipolar	Latching	Latching
-40 °C [-40 °F]	min. op.	NS	NS	50 G	110 G	285 G	5 G	100 G
	max. op.	70 G	140 G	135 G	215 G	435 G	110 G	200 G
	min. rel.	-70 G	-140 G	20 G	80 G	210 G	-110 G	-200 G
	max. rel.	NS	NS	120 G	190 G	360 G	-5 G	-100 G
	min. dif.	15 G	20 G	15 G	25 G	30 G	50 G	200 G
0 °C [32 °F]	min. op.	NS	NS	53 G	110 G	305 G	5 G	100 G
	max. op.	65 G	140 G	117 G	190 G	400 G	90 G	185 G
	min. rel.	-65 G	-140 G	20 G	80 G	230 G	-90 G	-185 G
	max. rel.	NS	NS	99 G	165 G	325 G	-5 G	-100 G
	min. dif.	15 G	20 G	15 G	25 G	30 G	50 G	200 G
25 °C [77 °F]	min. op.	NS	NS	55 G	110 G	310 G	10 G	100 G
	max. op.	60 G	140 G	115 G	180 G	390 G	85 G	180 G
	min. rel.	-60 G	-140 G	20 G	75 G	235 G	-85 G	-180 G
	max. rel.	NS	NS	95 G	155 G	31 G G5	-10 G	-100 G
	min. dif.	15 G	20 G	20 G	25 G	30 G	50 G	200 G
85 °C [185 °F]	min. op.	NS	NS	45 G	90 G	290 G	110 G	95 G
	max. op.	60 G	140 G	120 G	180 G	400 G	85 G	180 G
	min. rel.	-60 G	-140 G	15 G	70 G	215 G	-85 G	-180 G
	max. rel.	NS	NS	105 G	165 G	325 G	-10 G	-95 G
	min. dif.	12 G	20 G	15 G	15 G	30 G	50 G	190 G
125 °C [257 °F]	min. op.	NS	NS	40 G	80 G	270 G	5 G	80 G
	max. op.	65 G	140 G	123 G	190 G	410 G	100 G	180 G
	min. rel.	-65 G	-140 G	15 G	60 G	200 G	-100 G	-180 G
	max. rel.	NS	NS	115 G	180 G	340 G	-5 G	-80 G
	min. dif.	12 G	20 G	8 G	10 G	30 G	50 G	160 G
150 °C [302 °F]	min. op.	NS	NS	35 G	65 G	260 G	5 G	70 G
	max. op.	70 G	140 G	125 G	200 G	420 G	110 G	185 G
	min. rel.	-70 G	-140 G	10 G	55 G	185 G	-110 G	-185 G
	max. rel.	NS	NS	120 G	195 G	345 G	-5 G	-70 G
	min. dif.	10 G	20 G	5 G	5 G	30 G	50 G	140 G

NOTICE

Bipolar Hall-effect sensors may have an initial output in either the ON or OFF state if powered up with an applied magnetic field in the differential zone (applied magnetic field >Brp and <Bop). Honeywell recommends allowing 10 μs for output voltage to stabilize after supply voltage has reached 5 V.

SS400 Series

Figure 1. Performance Charts and Block Diagram

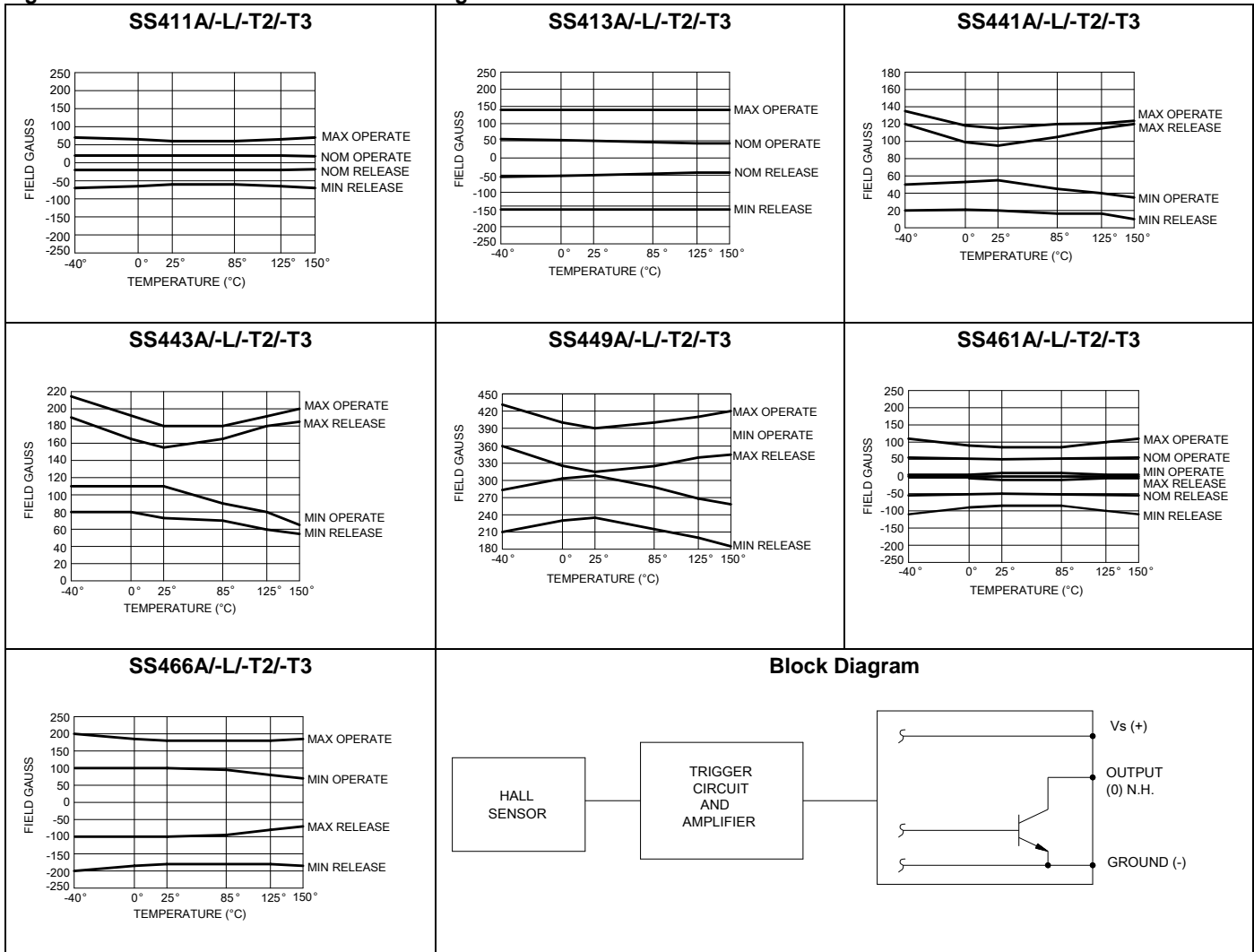


Figure 2. Electronic Diagrams

