



55SS16



Actual product appearance may vary.

55SS Series Series Unipolar Hall-Effect Digital Position Sensor

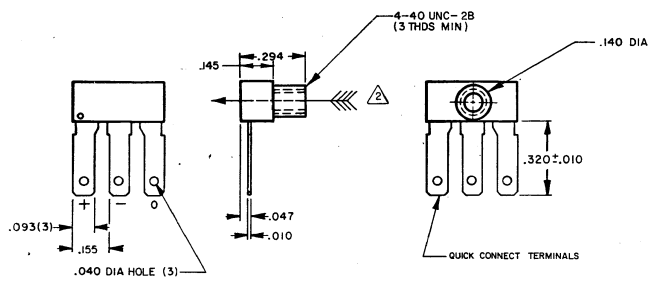
Potential Applications

- Speed and RPM sensor
- Brushless DC motor commutation
- Motor and fan control
- Magnetic encoding
- Tachometer, counter pickup
- Disc speed, tape rotation sensing
- Flow-rate sensing

Product Specifications	
Product Type	Hall-Effect Digital Position Sensor IC
Package Style	Threaded Boss, Quick Connect Terminals
Supply Voltage	4.5 Vdc to 9.0 Vdc
Output Type	Sink
Termination Type	Male 0.093 in X 0.010 in Quick Connect Terminal
Magnetic Actuation Type	Unipolar
Operating Temperature Range	-40 °C to 100 °C [-40 °F to 212 °F]
Storage Temperature	-40 °C to 150 °C [-640 °F to 302 °F]
Output Voltage	0.4 Vdc max.
Switching Time Rise (10 % to 90 %)	0.5 µs max.
Switching Time Fall (90 % to 10 %)	0.5 µs max.
Availability	Global
Supply Current (max. @ 25 °C)	4 mA
Output Current (max.)	20 mA
Operate Point @ 25 °C	40.0 mT [400 G] max.
Release Point @ 25 °C	5.7 mT [57 G] min.

Leakage Current max.	10 μ A
Differential	5.7 mT [57 G] min.
Series Name	5SS

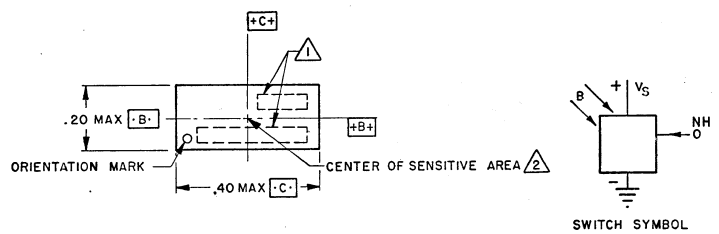
55SS SERIES CHART I
 DRAWING NUMBER
 REV. 1
 DATE 12/20/74
 MICRO SWITCH
 a Honeywell Division
 FED. MFG. CODE 91229



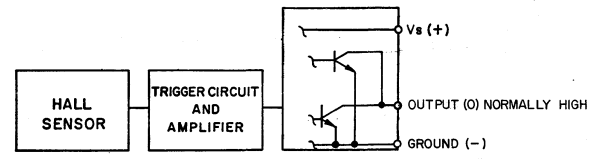
OPERATING CHARACTERISTICS (GAUSS)	MIN TYP MAX			ISSUE NUMBER	RELEASE NUMBER	CATALOG LISTING
	MIN	TYP	MAX			
OPERATE	—	245	400	3	PR-4177	55SS16
RELEASE	57	148	—			
DIFFERENTIAL	57	97	—			
OPERATE						
RELEASE						
DIFFERENTIAL						

NOTES
 △ CATALOG LISTING AND LOT NUMBER WILL BE STAMPED ON PACKAGE
 △ TO ACTUATE THE DEVICE THE SOUTH POLE OF THE MAGNET OR MAGNETIC FLUX GENERATOR MUST BE PRESENTED TO THE CENTER OF THE FRONT SURFACE OF THE DEVICE. (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)
 △ THE MAGNETIC FIELD STRENGTH (GAUSS) REQUIRED TO CAUSE THE SWITCH TO CHANGE STATE (OPERATE AND RELEASE) WILL BE AS SPECIFIED IN THE OPERATING CHARACTERISTICS. TO TEST SWITCH AGAINST THE SPECIFIED OPERATING CHARACTERISTICS, THE SWITCH MUST BE PLACED IN A UNIFORM MAGNETIC FIELD
 △ VOLTAGE REFERENCED TO GROUND
 △ AT 24° ± 2°C AND 5 VDC ± 0.5% SUPPLY VOLTAGE
 △ SUPPLY VOLTAGE RANGE IS 4.5 TO 9.0 VDC

ABSOLUTE MAXIMUM RATING	
SUPPLY VOLTAGE (V _S)	-1.2 TO +18 VDC
VOLTAGE EXTERNALLY APPLIED TO OUTPUT	(-) 0.5 VOLT MAX (ON OR OFF CONDITION) (+) 10 VOLTS MAX (OFF CONDITION ONLY)
LOADS TO OUTPUT	20 MA (SINK)
TEMPERATURE	-40°C TO +100°C OPERATING -40°C TO +150°C STORAGE
MAGNETIC FLUX	NO LIMIT, THE CIRCUIT CANNOT BE DAMAGED BY MAGNETIC OVERDRIVE



ELECTRICAL CHARACTERISTICS (24±2°C, 5 VDC ± 0.5% SUPPLY)				
	MIN	TYP	MAX	REMARKS
SUPPLY CURRENT		2.5 MA	4.0 MA	SWITCH IN OFF CONDITION
OUTPUT VOLTAGE (OPERATED)	+0.2 V		+0.4V △	SINKING 8 MA
OUTPUT LEAKAGE CURRENT (RELEASED)			10 μA	LEAKAGE INTO SWITCH OUTPUT
OUTPUT SWITCHING TIME (SINKING 8 MA)				
RISE TIME	0.2 μSEC		0.5 μSEC	10% TO 90%
FALL TIME	0.1 μSEC		0.5 μSEC	90% TO 10%
RATE OF OPERATION			100KHZ	



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MICRO SWITCH a Honeywell Division	SOLID STATE SWITCH MAGNETICALLY OPERATED	CATALOG LISTING 55SS SERIES CHART I
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FED. MFG. CODE 91229

THIRD ANGLE PROJECTION	
SCALE	3:1
DO NOT SCALE PRINT	
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE	
ONE PLACE	(.0) ±.030
TWO PLACE	(.00) ±.015
THREE PLACE	(.000) ±.005
ANGLES	±
WEIGHT	