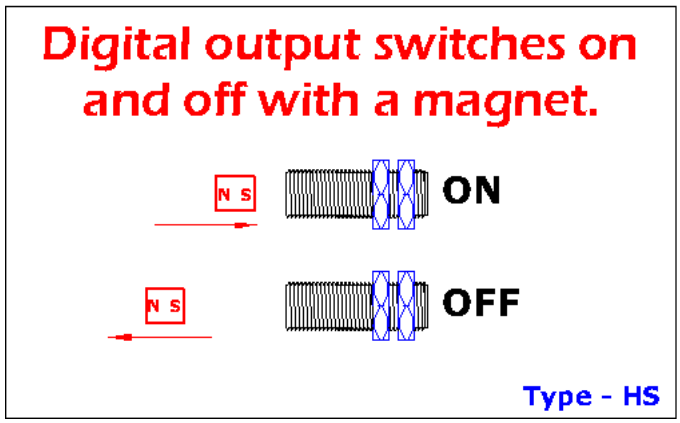
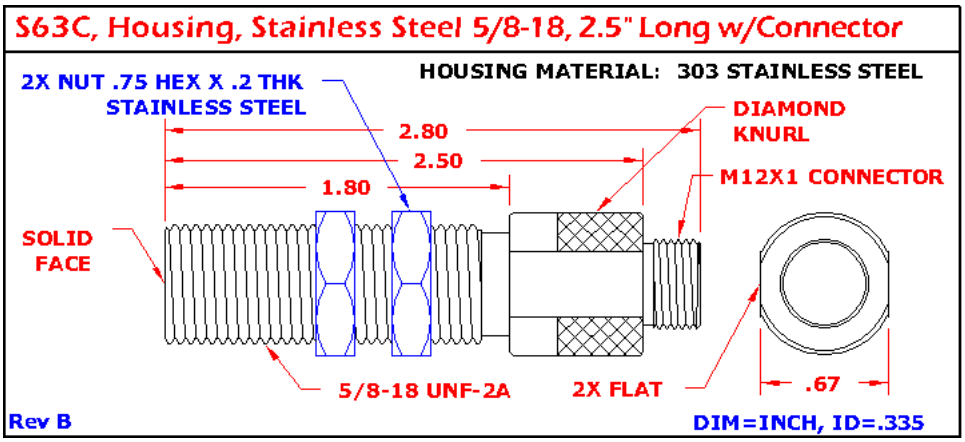
S63C-EHS1B-3TCB2 - Hall or Magneto Resistive Switch Sensor www.sensorso.com

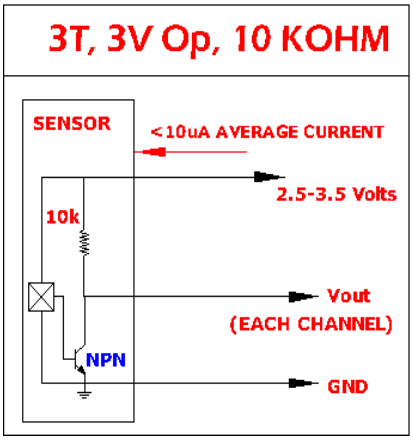
Micro Power Either Pole Hall Switch, 38 G, Battery Operated, 3V input, 10k pull up output, Stainless 5/8-18 x 2.5" 12mm con housing, Integral 4 pin male 12mm micro connector

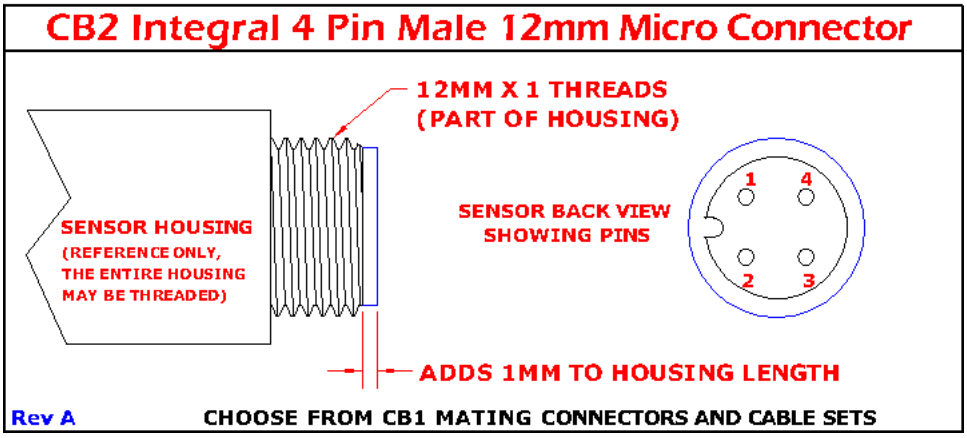


- *DETECT EITHER S OR N POLE*
- *OPERATES FROM 2.5 TO 3.5 V*
- *EXTREMELY LOW CURRENT, 7uA*
- *-40 TO UP TO 150 C*
- *CHOPPER STABILIZED HALL EFFECT*

ENVIRONMENTAL SPECIFICATIONS - S63C	
Corrosion Resistance	500 hours salt spray ASTM B-117
Installation Torque	80 Foot-Pounds Maximum
Enclosure	Nema 1,3,4,6,13 &IEC IP67
Vibration	10 G's 2 to 2000 Hz Sinusodal
Mechanical Shock	100 G's, 11 mS Half-Sine







Connections Chart
Pin 1 Vcc
Pin 2 n/c
Pin 3 Ground
Pin 4 Digital Vout
CB2-EHS1B

Date Code 'YYM'			
YY = YEAR, M = MONTH			
A JAN	D APR	H JUL	L OCT
B FEB	E MAY	J AUG	M NOV
C MAR	G JUN	K SEP	N DEC

The EHS1B sensors provide one digital output that is normally OFF and turns ON when a magnetic field is present. The Hall Effect switch triggers from either Pole of a magnet. Note that OUTPUT ON means LOW for NPN sensors and HIGH for PNP sensors. The EHS1B is a low power (3V, 7uA), sensitive Hall Effect switch that triggers when exposed to a field of 40 Gauss from either magnetic pole.

The distance between the sensor face and either pole of a magnet that operates the switch (turns the output transistor on) is referred to as the 'Operate Air Gap'. This gap is determined by looking at the magnet's flux density vs. air gap curve. The distance that produces the magnetic field equal to or less than 'Release Point' specified on this sheet is the Release air gap. The must operate air gap is the distance at which the magnet produces a field equal to the MAX operate point of the Hall switch. The must release gap is the distance the at which the magnet produces a field equal to the MIN release point. Note that magnets produce weaker fields as the temperature increases.

In addition to the EHS1B, we offer a variety of South Pole and Either pole Hall Effect and Magnetoresistive sensors including multiple programmable sensors, North and South Pole output sensors, latching sensors, and sensors with speed/count and direction outputs. Check our website or contact us to discuss all of our magnetic speed, count, and position detection sensors.

Micro Power Either Pole Hall Switch, 38 G, Battery Operated, 3V input, 10k pull up output, Stainless 5/8-18 x 2.5" 12mm con housing, Integral 4 pin male 12mm micro connector

EHS1B-3T, Electrical & Functional Specifications

ABSOLUTE MAX LIMITS	MIN	MAX	UNITS
Supply Voltage, Vcc	-0.3	+5	Volts DC
Voltage applied to output	-0.3	+5	Volts
Current into output	--	1.0	mA
Current out of output	--	Vcc/10k	mA

ELECTRICAL SPECS	CONDITIONS	MIN	MAX	UNITS
Temperature Range *	Operating	-40	+110	Deg C
Supply Voltage, Vcc	Over temperature	+2.5	+3.5	Volts DC
Average Supply Current	Into Vcc	+3.0	+10	uA
Sleep Time **	Output static	45 typ	90	mS
Awake Time **		45 typ	90	uS
Saturation Voltage Low	I sink = 1 mA	0	0.4	Volts
Internal Pull Up Resistor	Vcc to Vout	9.5	10.5	k ohms
Output Rise Time 10-90%	R pu=10k, C < 100pF	--	5.0	uS
Output Fall Time 90-10%	R pu=10k, C < 100pF	--	2.0	uS
ESD	Nondestructive	--	5000	Volts
EMI ***	20k to 1 G Hz	--	n/a***	V/M

* T max = 150°C is available, contact factory.
** Output updates only while awake
*** Specifications not available at release.

MAGNETIC CHARACTERISTICS	MIN	TYP	MAX	UNITS
Operate Point over Temp	±15	±40	±55	Gauss
Release Point over Temp	±10	±30		Gauss
Hysteresis over Temp		6		Gauss

Rev A