S12-DHS1-5KSA5

Dual Output Hall Switch Sensor

- **Dual output hall switch**
- **55 gauss operate**
- **NPN w/5k pull up resistor**
- **Stainless 12x1mm x 35mm housing**
- **Shielded 4 wire 22 AWG 80°C PVC, 5ft**

CUSTOMER FOCUSED ENGINEERING + MODULAR DESIGN

Part Description: S12-DHS1-5KSA5

Housing	Sensor Type & Function	Electrical Option	Connection Type
S = Stainless Steel, Thread Pitch M12x1, 35mm Long	Dual Output Hall Switch Sensor	NPN, 5k Pull Up Resistor	SA Shielded 4 Wire 22 AWG 80°C PVC

Modify, update, or enhance any sensor with our modular features and functionality.

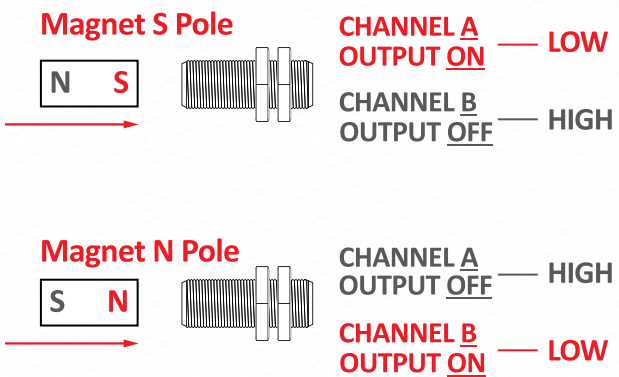
HOUSING *- Aluminum, stainless steel, plastic, threaded, flange mount, customer specific*

ELECTRICAL *- Every sensor function available in various electrical options (NPN, PNP, TTL, etc.)*

CONNECTION *- Deutsch, Amphenol, many other brands, free end wires, pigtails, any length*

Need a Custom Sensor Solution?... Send us your application specific requirements at *sensorso.com*

'Dual Output' Hall Switch Sensor



Type - DHS

DESCRIPTION

- Sensor produces dual pulsing outputs, 1 South Pole and 1 North Pole.
- Functions as directional limit switch when magnets are mounted at each end of range of motion.
- No orientation required. Use lock nuts to set air gap within range of target magnets.
- South Pole element is located closer to sensor face and will detect at a slightly greater operate gap.
- Note: Operate and release gaps are dependent on the size, material, grade, and temperature of the target magnet.

FEATURES

- Rugged, Sealed Housing
- Greater Detection Gap Than Standard DHS Sensor
- Solid State (Nothing to wear out!)

Sensor Solutions
A STANDEX ELECTRONICS COMPANY

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Dual Output Hall Switch Sensor

Note: Check our website or contact us to see all of our Options, including more and less sensitive choices.

Electrical Specifications	Conditions	Min	Max	Unit
Temperature Range*	Operating	-40	+110*	Deg C
Supply Voltage, Vcc	Over temperature	+4.5	+28	Volts DC
Supply Current, Output Off	Into Vcc	+4	+14	mA
Frequency Range		0	20	kHz
Internal Pull Up Resistor	Vcc to Vout	4.9	5.1	kOhms
Saturation Voltage Low 100% tested at 20°C before shipping	Vcc=12V, Rload >100k	0	.4	Volts
Saturation Voltage High 100% tested at 20°C before shipping	Vcc=12V, Rload >100k	11.5	12	Volts
Output Rise Time 10-90%	C < 100pF	-	8.0	µS
Output Fall Time 90-10%	C < 100pF	-	2.0	µS
ESD **	Nondestructive	-	8000	Volts
EMI **	20k to 1 G Hz	-	100	V / M

* T max = 150°C is available, contact factory.
** Specifications not available at release.

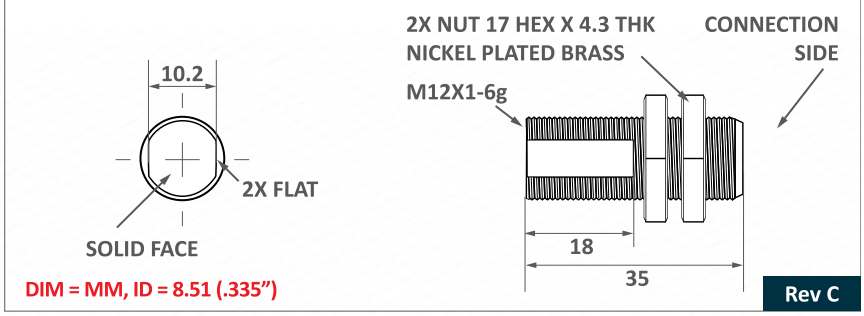
Rev B

Absolute Max Limits	Min	Max	Unit
Supply Voltage, Vcc	-32	+32	Volts DC
Voltage Applied to Output	-0.3	+28	Volts
Current Into Output	-	25	mA
Current Out of Output	-	Vcc/5k	mA
Load Dump, 40 mS Rs = 20	-	60	Volts

Environmental Specifications	
Corrosion Resistance	500 hours salt spray ASTM B-117
Installation Torque	23 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

Magnetic Characteristics	Min	Typ	Max
Operate Point Over Temp 100% tested at 20°C before shipping	15 G	55 G	76 G
Release Point Over Temp	5 G	35 G	57 G
Hysteresis Over Temp	5 G	20 G	28 G
Inside Depth to N pole Element	-	.060"	-
Inside Depth to S pole Element	-	.090"	-

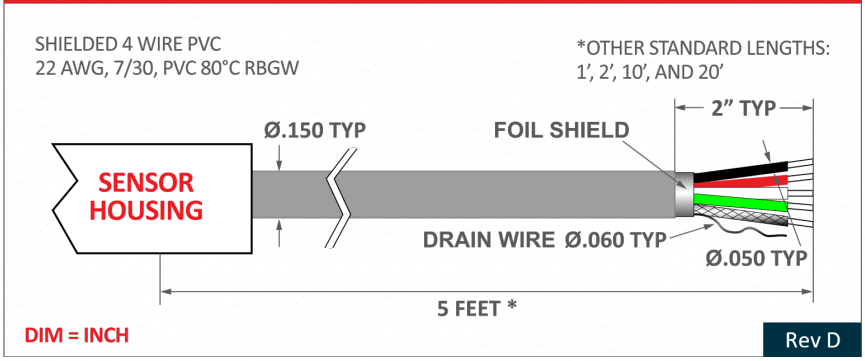
S12 Housing, 303 Stainless Steel, M12X1, 35mm Long



DIM = MM, ID = 8.51 (.335")

Rev C

SA5, Shielded 4 Wire 22 AWG 80°C PVC



DIM = INCH

Rev D

Connections Chart	
Pin 1 (Red) Vcc	Pin 3 (White) S Pole Vout
Pin 2 (Black) Ground	Pin 4 (Green) N Pole Vout
S12-DHS	

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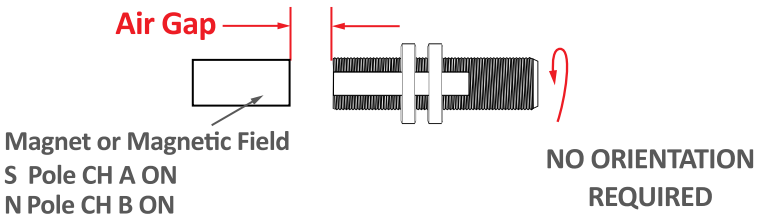
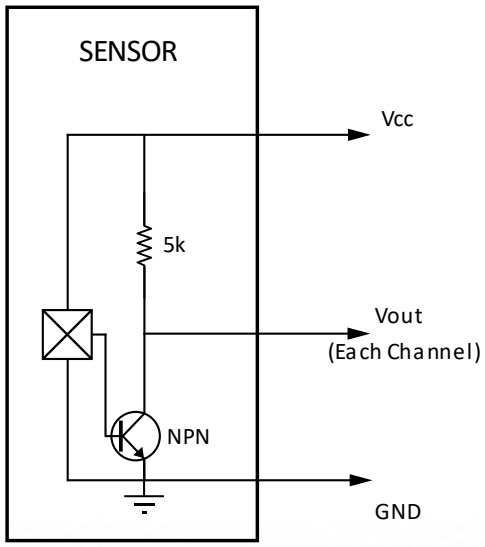
Sensor Function



S12-DHS

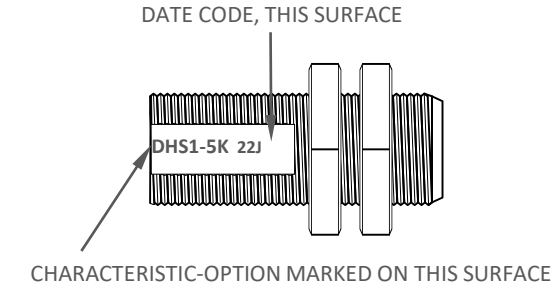
5K, 5k Pull-up Resistor



Date Code 'YYM' YY = YEAR, M = MONTH

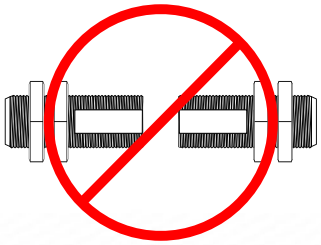
A JAN	D APR	H JUL	L OCT
B FEB	E MAY	J AUG	M NOV
C MAR	G JUN	K SEP	N DEC

Marking



Handling Instructions

DO NOT CONTACT
FACE TO FACE



CONTACT WITH OTHER MAGNETS *MAY*
REDUCE THE MAXIMUM OPERATING GAP

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