

## Installation Instructions for the SS41 Series Low Gauss Bipolar Hall Effect Position Sensors

ISSUE 5  
PK 87881

### **⚠ WARNING**

#### **PERSONAL INJURY**

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

**Failure to comply with these instructions could result in death or serious injury.**

#### **SOLDERING/ASSEMBLY**

Leads must be adequately supported during any forming/shearing operation to ensure that the leads are not stressed inside the plastic case. Recommended PC board wave soldering temperature is 250° to 260°C (482° to 500°F), for duration of 3 seconds maximum.

#### **ELECTRICAL CHARACTERISTICS**

Supply Voltage	4.5 to 28 VDC
Current, $I_{off}$	10 mA max.
Current, $I_{on}$	11.3 mA max.
Rated Sinking Current	20 mA
Saturation Voltage	0.4 V max. @ 25°C
Output Leakage Current	10 $\mu$ A
Output Switching Time @ 25°C	
Rise, 10 to 90%	1.5 $\mu$ s
Fall, 90 to 10%	1.5 $\mu$ s
Temperature, Operating & Storage	-40 to +150°C (-40 to +302°F)

#### **ABSOLUTE MAXIMUM RATINGS\***

Supply Voltage	-25 to +28 VDC
Applied Output Voltage	-0.5 to +28 VDC
Output Current	20 mA
Magnetic Flux	No limit. Circuit cannot be damaged by magnetic overdrive

\*Absolute maximum ratings are the extreme limits that the device will withstand without damage. However, the electrical and magnetic characteristics are not guaranteed as the maximum limits are approached, nor will the device necessarily operate at absolute maximum rating.

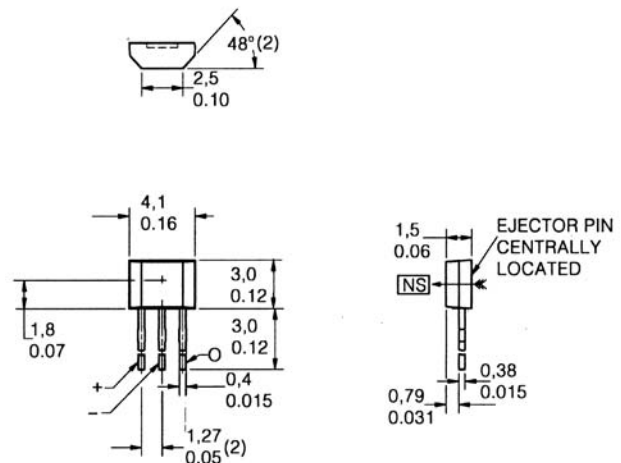
#### **MAGNETIC CHARACTERISTICS**

°C	-40	0	25	85	125	150
°F	-40	32	77	185	257	302
Max. Op.	200	150	150	150	200	250
Min. Rel.	-160	-160	-140	-150	-200	-250
Min. Diff.	40	50	50	50	60	60

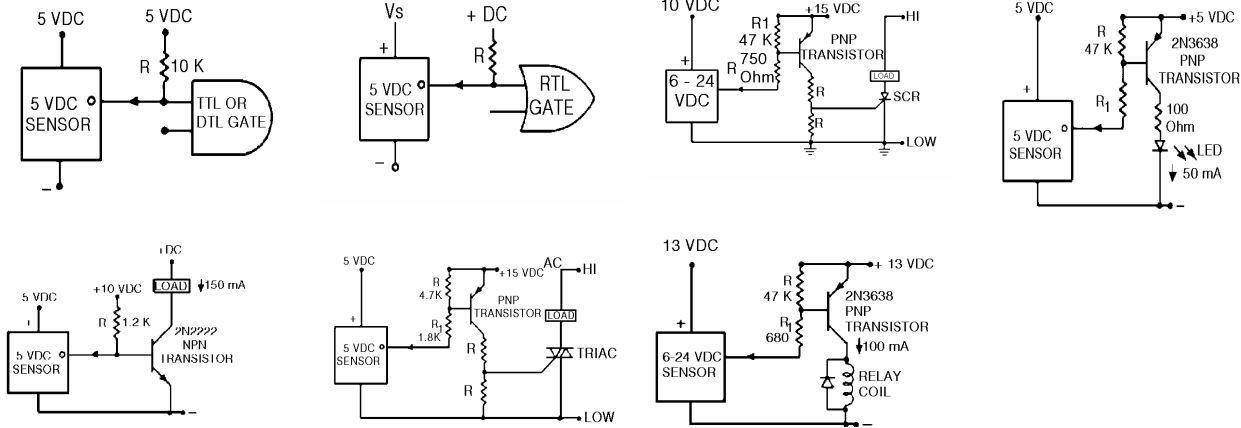
#### **NOTICE**

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 >  $B_{rp}$  and <  $B_{op}$ ). Honeywell recommends allowing 10  $\mu$ sec for output voltage to stabilize after supply voltage has reached 5 volts.

#### **MOUNTING DIMENSIONS (for reference only)**



INTERFACING DIAGRAMS



WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. **The foregoing is Buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.**

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While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact a nearby sales office. Or call:

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