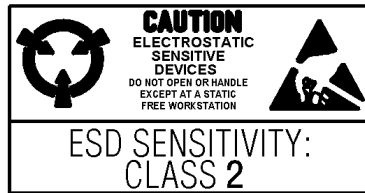


Solid State Hall Effect Position Sensors

SR13/15 Series

FEATURES

- 3.8 to 30 VDC supply voltage
- Digital current sinking output
- Snap-in or flat mount packages
- Quad-Hall design eliminates stress effects
- Temperature compensated magnetics
- Bipolar, unipolar and latching magnetics
- High output capability, 50mA absolute maximum
- Operating temperature range -40°C to +150°C
- Varying leadwire lengths of 24 AWG Radox wire

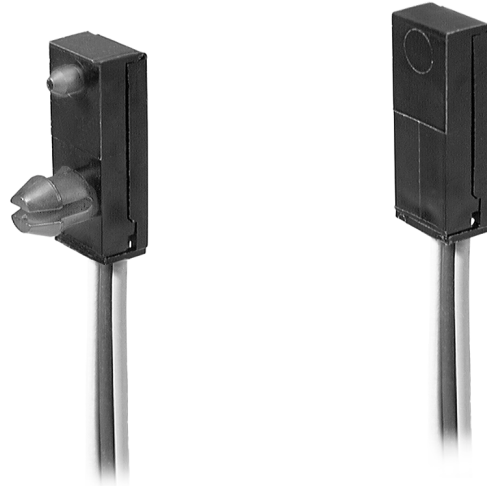


⚠️ WARNING

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.



The newly introduced SR13/15 Series package enhancements permit quick and easy sensor installation, increasing the usability of the SS400 Series. These devices can be installed without additional mounting hardware. The snap-in and flat mount sensor packages can house any of the present SS400 Series sensors or any similarly sized sensing elements. The packages also provide varying 24AWG Radox leadwire length or connector capabilities.

The SS400 Series position sensors have a thermally balanced integrated circuit that provides predictable performance for the -40°C to +150°C operating temperature range. The SS400 Series band gap regulation provides stable operation over 3.8 to 30 VDC. Current consumption is 10 mA at +40°C ambient temperature. SS400 Series sensors are capable of continuous 20 mA sinking output. The sensors may be cycled as high as 50 mA maximum. Bipolar, unipolar and latching magnetics are available.

⚠️ WARNING

MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as product installation information.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

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

Solid State Hall Effect

Position Sensor

SR13/15 Series

OPERATING CHARACTERISTICS -40°C TO 125°C, 3.8 TO 30 VDC

| | Min. | Typ. | Max. | Remarks |
|-----------------------------------|-----------------------------------|--------------|-------------|---------------------------------------------------------|
| Supply voltage | 3.8 | — | 30 | VDC |
| Current consumption | — | — | 13 | mA |
| Output voltage (operated) | — | — | 0.40 | Sinking 10 mA max. |
| Sink current (operated) | — | — | 20 | mA |
| Output leakage current (released) | — | — | 5 μ A | $V_{OUT} = 30$ VDC, $V_{CC} = 30$ VDC |
| Output switching time | | | | |
| Rise, 10 to 90% | — | 1.5 μ s. | 1.5 μ s | $V_{CC} = 12$ V, $R_L = 1.6$ K Ω , $C_L = 20$ pF |
| Fall, 90 to 10% | — | 15 μ s | 1.5 μ s | |
| Operating Temperature | -40°C to +150°C (-40°F to +302°F) | | | |

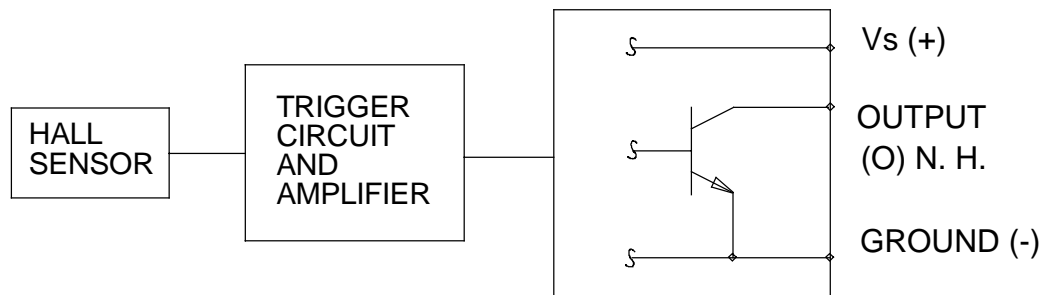
MAGNETIC CHARACTERISTICS

| | SR13C-A1 | SR13D-A1 | SR13F-A1 | SR13R-A1 | SR15C-A3 |
|---------------|----------|----------|----------|----------|----------|
| Magnetic Type | Unipolar | Unipolar | Unipolar | Latching | Unipolar |
| 25°C | | | | | |
| Max. Op. | 180 | 115 | 390 | 85 | 180 |
| Min. Rel. | 75 | 20 | 235 | -85 | 75 |
| Min. Dif. | 25 | 20 | 30 | 50 | 25 |
| -20°C to 85°C | | | | | |
| Max. Op. | 215 | 135 | 435 | 110 | 215 |
| Min. Rel. | 60 | 15 | 200 | -110 | 60 |
| Min. Dif. | 10 | 8 | 30 | 50 | 10 |

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 μ s for output voltage to stabilize after supply voltage has reached 5 volts.

BLOCK CIRCUIT WIRING DIAGRAM



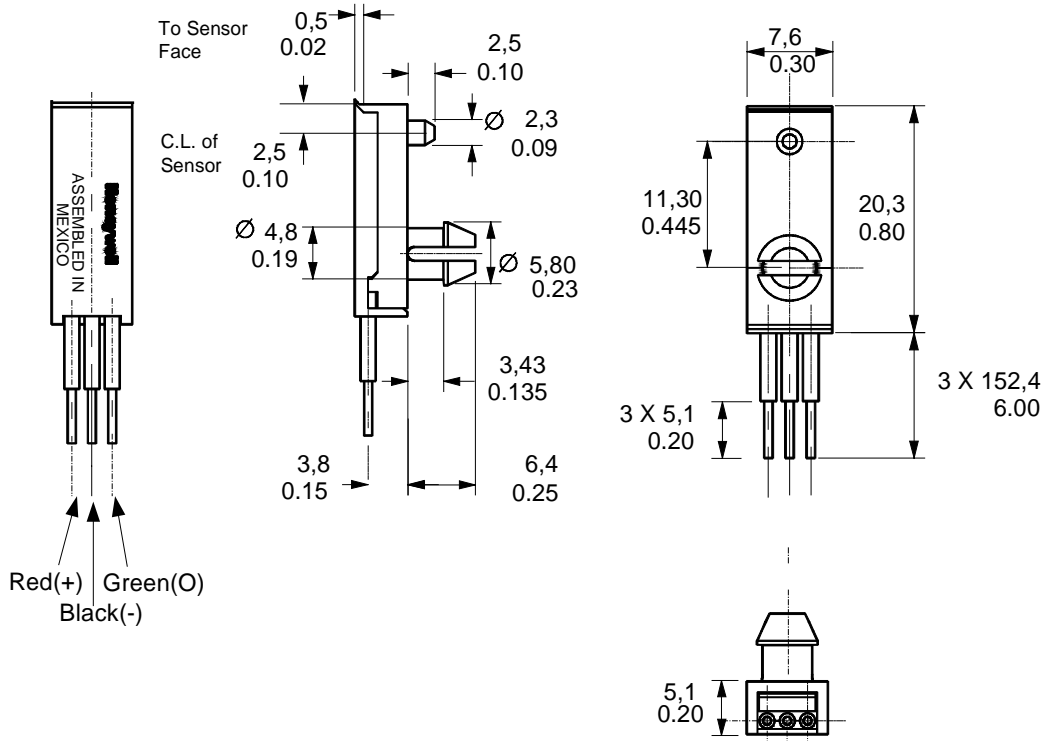
Solid State Hall Effect

Position Sensors

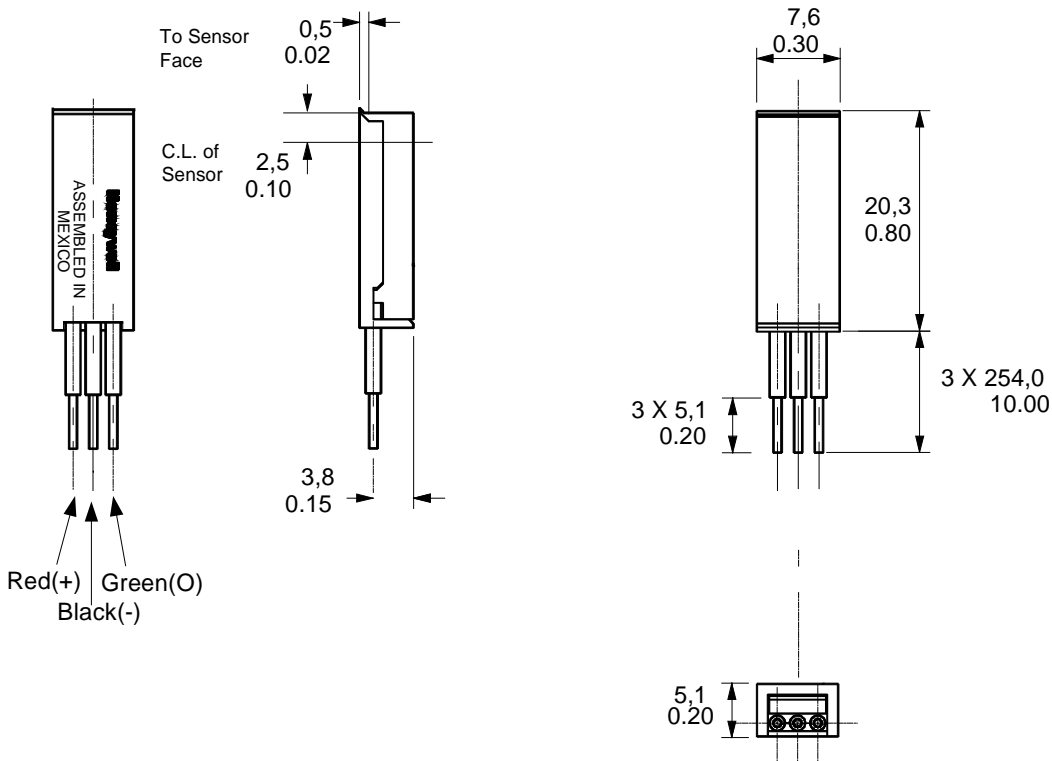
SR13/15 Series

MOUNTING DIMENSIONS (for reference only) mm/in

SNAP-IN DIGITAL POSITION SENSOR (SR13C-A1, SR13D-A21, SR13F-A1, SR13R-A1)



FLAT MOUNT DIGITAL POSITION SENSOR (SR15C-A3)

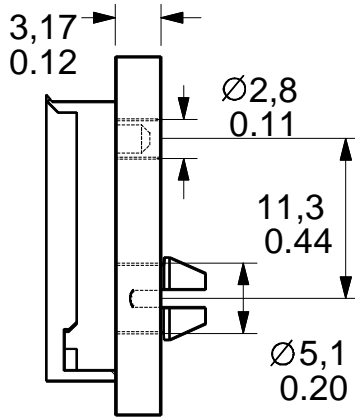


Solid State Hall Effect

Position Sensors

SR13/15 Series

SUGGESTED MOUNTING DETAIL



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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