



## SPS-L075-HALS Smart Position Sensors

### General Description:

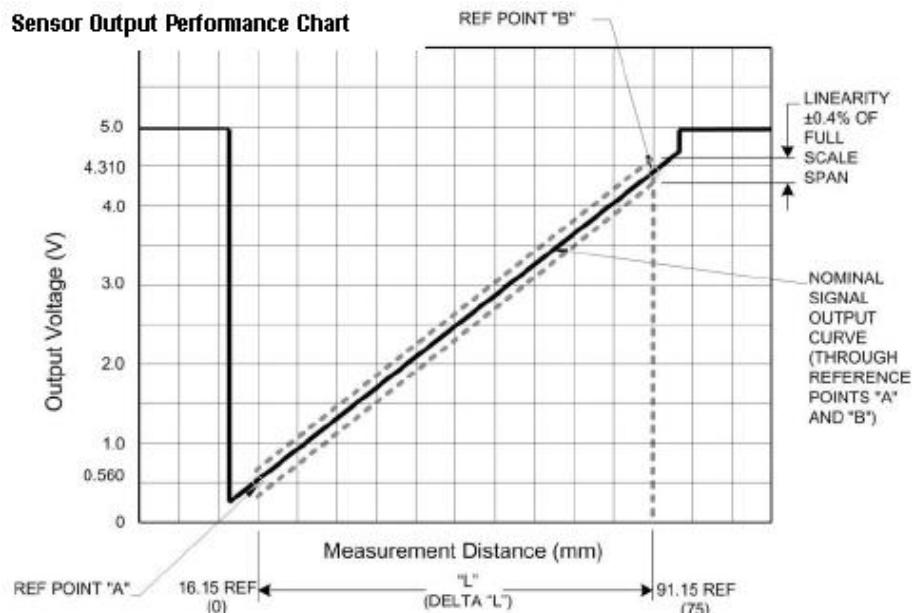
The SMART Position Sensor, 75 mm linear configuration, is a non-contacting sensing solution for linear absolute position sensing with enhanced speed and accuracy. It senses the position of a magnet relative to the sensor from 0 mm to 75 mm [0 in to 3.0 in].

Why is the SMART Position Sensor smart? SMART means that this is a sensor that can essentially think for itself. The SMART Position Sensor has the ability to self-calibrate because it uses a patented combination of an ASIC (Application-Specific Integrated Circuit) and an array of MR (magnetoresistive) sensors to accurately and reliably determine the position of a magnet attached to a moving object (e.g., elevator, valve, machinery, etc.) so that the object's position can be determined.



The MR array measures the output of the MR sensors mounted along the magnet's direction of travel. The output and the MR sensor sequence determine the nearest pair of MR sensors to the center of the magnet location. The output of these two MR sensors is then used to determine the position of the magnet between them.

With this sensor, Honeywell has utilized MR technology through the ASIC at a level never before accomplished. Other configurations are in development.



## Key Features:

- Resolution of up to 16 bits provides enhanced accuracy
- Non-contacting technology can provide enhanced product life and durability with less downtime
- Combined patented MR sensor and ASIC technology provide enhanced differentiation and performance
- Air gap of up to  $3,0 \pm 2,5$  mm [ $0.118 \pm 0.098$  in] between sensor and magnet expands application opportunities
- Other output options (CAN bus, RS232) available upon request
- Self-diagnostics feature can reduce equipment downtime
- Small size, taking up less space than most competitive technologies, allows for use where space is at a premium
- IP67 and IP69K sealing allow use in a variety of harsh applications
- RoHS-compliant materials meet Directive 2002/95/E

## Applications:

- Aerospace:
  - Aircraft ram door position
- Medical:
  - Syringe pumps
- Industrial:
  - Cutting and slitting machinery
  - Elevator level position
  - Material handling
  - Packaging
  - Plastic molding machines
  - Valve position
  - Wafer handling equipment
  - Woodworking machinery

## Related Products Information:

| Mfr Part #    | Farnell # | Newark # | Description            |
|---------------|-----------|----------|------------------------|
| SPS-L075-HALS | 1784725   | 34R2840  | Smart Position Sensors |

