

# 55320 Flat Pack Linear Hall Sensor

**OBSOLETE** DATE: - PCN/ECN# -  
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RoHS



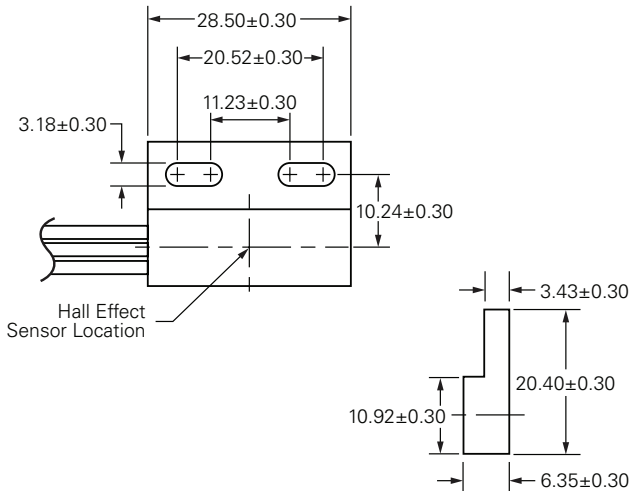
## Description

The Littelfuse 55320 Series of linear absolute position sensors provide linear measurement up to 30mm in movement and is activated by a remote magnet/actuator. The internal design of the sensor uses non-contact magnetic Hall effect technology with options of analog or PWM output signals. This sensor is immune to the performance limitations of the wiper based products that are associated with mechanical wear or contamination.

The 55320 package design commonly finds applications within all types of vehicle and industrial segments and designed to operate in the harsh environments, the sensor has an operating temperature range between -40°C and 105°C. This unit incorporates automotive grade EMI/EMC and reverse battery polarity protection, as well as commercial grade 20 AWG-TXL automotive wire and the option of a Molex type sealed connector.

## Dimensions

Dimensions in mm



## Features

- 30mm Linear sensing range
- Absolute position sensing
- Analog output
- Non-contact measuring
- EMC Protection

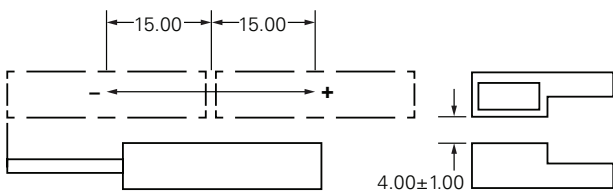
## Benefits

- Long life - no wear components
- High Speed
- Unaffected by harsh environments
- Compact robust package
- Adaptable to custom magnetic actuators

## Applications

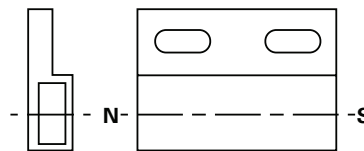
- Hydraulic cylinder position
- Transmission shift position
- Valve position
- Seat position
- Automation and controls

## Actuator Magnet Orientation and Movement



## Actuator Magnet

57320-000 (Supplied with Sensor)



Note: Magnet Dimensions same as sensor housing.

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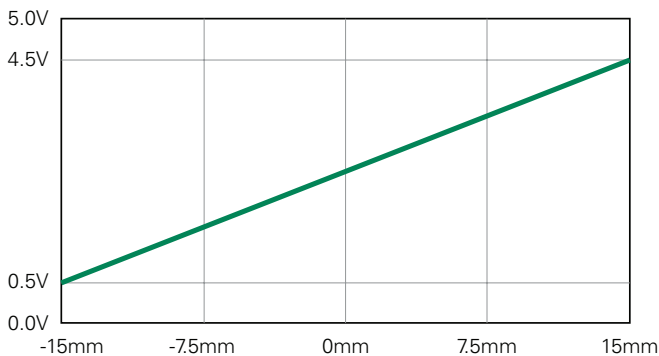
## Specifications

Hall Effect Device			Linear Analog Output	
Operating Voltage	Recommended	Vdc	4.5 to 5.5	
Over Voltage	Absolute Max <sup>1</sup>	Vdc	20	
Reverse Voltage	Absolute Max <sup>1</sup>	Vdc	-10	
Supply Current		mA - max.	16	
Output Current		mA - max.	-8 to +8	
Programmed Output Voltage Range		Vdc	0.5 to 4.5	
Programmed Sensing Range		mm-max	30	
Accuracy <sup>2</sup>	Magnetic and Mechanical Temperature	%	±4	
		%	±2	
Response Time		ms-Max	4	
Start-up Time		ms-Max	15	
Temperature	Operating	°C	-40 to +105	
	Storage	°C	-65 to +105	
Actuator Positional Tolerances	Air Gap <sup>3</sup>	mm	4.00 ±1.00	
Wire	Size	AWG	20	
	Insulation	SAE	J-1128, Type TXL	
	Length	mm	300	

Notes:

1. This is a stress rating only. Functional operation is not implied for additional load/life information.
2. When used in conjunction with the supplied 57320-000 actuator under typical conditions. Accuracy is affected by the sensor and actuator alignment, air gap and the presence of external magnetic fields or materials. Consult Littelfuse for details.
3. When used in conjunction with the supplied 57320-000 actuator.

## Output Signal



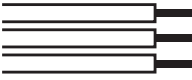
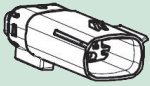
## Customization Options

Customized versions available. Contact Littelfuse for details.

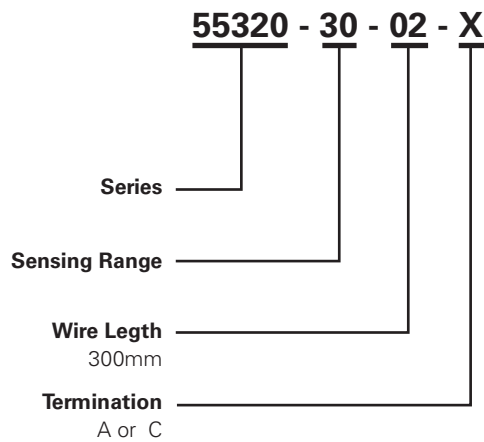
- Linear sensing range
- Output type: Analog, PWM
- Connectors and terminals
- Wire type and length
- Magnetic actuators
- Actuator direction

## 55320 Flat Pack Linear Hall Sensor

### Termination Options

Select Option	Description		Color	Function
A	Stripped Leads		Black White Red	Ground Signal V (in)
C	Molex Connector MX 150 33481-0301		Black White Red	Pin 1: Black/Ground Pin 2: White/Signal Pin 3: Red/V(in)

### Part Numbering System



### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
Bulk	Bulk	500	N/A	N/A