



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Linear Position Sensors

LIN Sensors – Kit with magnet

Thin, programmable, non-contact magnetic position sensors with dual outputs available



Description

The LIN Series sensors are non-contact linear position sensors with one or two independent outputs. The sensors operate through the use of Hall Effect technology with magnetic fields generated by permanent magnets. They provide a linear change in voltage output (ratiometric to the input voltage) corresponding to a linear displacement of the actuator magnet.

The included actuator magnet is specifically paired to the sensor and is required to assure proper operation. Other magnets may yield less than optimal performance.

Features

- Easy setup and robust monitoring with M4 screws
- Dual independent (redundant) outputs assure high reliability
- Custom programming available for: range, slope, PWM output
- No mechanical interface means no parts to wear out or jam
- Comes with 20 AWG 305 mm (12") discrete wire leads or harness with connector
- RoHS Compliant
- IP68*
- Suitable for wide air gap applications
- Compliant to industrial/automotive EMC/EMI/ESD directives

Typical Applications

- Hydraulic valves
- Hydraulic controls
- Electric drives
- Pneumatic controls
- Zero-contact encoder alternative
- Gear selection / shifting position

Environmental Specifications

Operating Temperature	-40 °C to 140 °C (-40 °F to 284 °F)
Ingress Protection	IP68*

*Contact ZF for details on testing conditions

Electrical Specifications

Input		
Supply Voltage	Maximum Overvoltage	Reverse Battery Protection
5.0 VDC \pm 10%	16 VDC	12 VDC
Output Signal	0.5 – 4.5 VDC (with nominal input)	
Input Current	Single output	8 mA typ., 10 mA max.
	Dual output	16 mA typ., 20 mA max.
Resolution	12 bit	
Accuracy, overall	\pm 2% Full scale	
Output Linearity	\pm 1% Full scale	

Mechanical Specifications

Measuring Range	Up to 45 mm
Air Gap**	4.5 mm (0.18")
Maximum Magnet Misalignment	2 mm (0.08")

**Output is calibrated to meet spec within air gap shown; any variation will affect performance



Products

Part Number

LIN-11HAW1

Output

Analog single

Interface

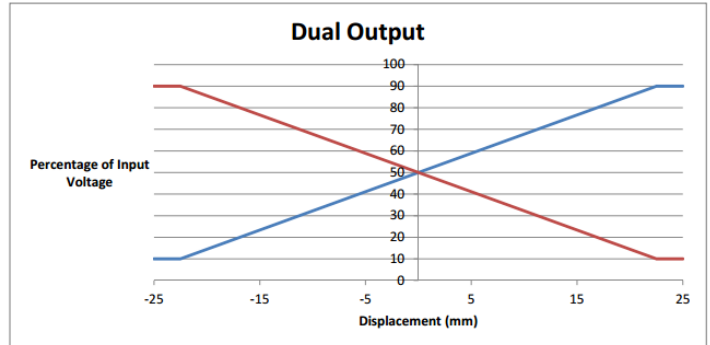
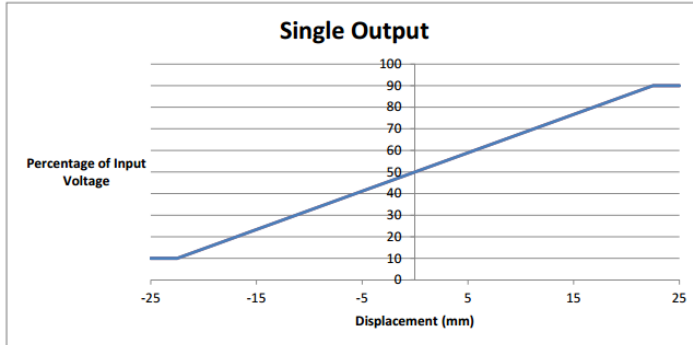
20 AWG x 305 mm (12") discrete wires

LIN-21HAW1

Analog dual

20 AWG x 305 mm (12") discrete wires

Typical Output vs. Linear Displacement (as percentage of input)



Dimensions mm (inches)

